Perceptions and Experiences of Patient Birth Trauma Among Maternity Healthcare Professionals: An Exploratory Study

by

Cynthia Lee Salter

BA, Ohio Wesleyan University 1985

MPH, The Johns Hopkins University School of Hygiene and Public Health, 1996

Submitted to the Graduate Faculty of the

Department of Behavioral and Community Health Sciences

Graduate School of Public Health in partial fulfillment

of the requirements for the degree of

Doctor of Philosophy

University of Pittsburgh

2019

UNIVERSITY OF PITTSBURGH

GRADUATE SCHOOL OF PUBLIC HEALTH

This dissertation was presented

by

Cynthia Lee Salter

It was defended on

November 15, 2019

Dissertation Advisor:
Jessica Burke, PhD
Professor and Associate Chair, Behavioral and Community Health Sciences
Graduate School of Public Health, University of Pittsburgh

Committee Members:

Judy Chang, MD, MPH
Associate Professor, Department of Obstetrics, Gynecology & Reproductive Sciences, and Internal Medicine, Associate Professor, Clinical and Translational Science Institute, Assistant Dean of Medical Student Research, School of Medicine, University of Pittsburgh

Patricia Documet, MD, DrPH
Associate Professor and Director of Doctoral Program
Behavioral and Community Health Sciences
Graduate School of Public Health, University of Pittsburgh

Dara Mendez, PhD, MPH
Assistant Professor, Epidemiology, Graduate School of Public Health
University of Pittsburgh

Martha Ann Terry, PhD
Associate Professor and Director of MPH Program, Behavioral and Community Health Sciences
Graduate School of Public Health, University of Pittsburgh

Perceptions and Experiences of Patient Birth Trauma Among Maternity Healthcare Professionals: An Exploratory Study

Cynthia Lee Salter, PhD

University of Pittsburgh, 2019

Abstract

Each year 3.79 million U.S. women give birth, and more than 98% of births take place in hospitals. Yet the U.S. maternal mortality ratio is increasing and is four to five times higher for women of color than for white women. Besides poor physical health outcomes, many women experience lasting psychological trauma symptoms after giving birth, even in the absence of obstetric emergencies.

This dissertation research uses semi-structured interviews with 28 maternity healthcare professionals including labor and delivery nurses (n=14), midwives (n=8) and physicians (n=6) to explore their perceptions and experiences of patient birth trauma. Findings include reports of potential secondary trauma, compassion fatigue, burnout and moral distress among participants, associated with providing maternity care. Participants identified system drivers with patient birth trauma, including lack of provider training in responding to patient emotional needs, lack of structure for processing their own emotional response to trauma, and inadequate nursing staff. Other contextual factors that participants associated with patient birth trauma included lack of patient birth preparation, lack of continuity of care, lack of informed consent, lack of patient-centered care and poor communication. It is noteworthy that some contextual factors that

participants associated with increased risk of **patient** birth trauma are the same factors that interfered with **provider** ability to manage their own responses to trauma.

Additionally, participants' descriptions of birth trauma were mapped onto the Bohren et al. 2015 "Typology of Mistreatment of Women During Childbirth," with participant narratives fitting into six of the seven mistreatment categories. The greatest number of participant statements mapped onto the category "Failure to meet professional standards of care," followed by "Poor rapport between women and providers." These findings demonstrate that some providers use the phrase "birth trauma" as a euphemism for patient mistreatment.

This research contributes to understanding system factors associated with birth trauma, respectful patient-centered maternity care and mistreatment, all issues of public health significance. Findings reinforce the need to address systemic mistreatment and racism and to provide adequate support for clinicians in addressing their own emotional responses to birth trauma as well as training in the psychological and emotional components of birth.

Table of Contents

List of Tables

List of Figures

Preface

I would like to thank the many people who contributed to the successful completion of this dissertation. First, I could never have completed the research without the caring and committed maternity healthcare professionals throughout Pittsburgh who participated in this study. Nurses, midwives and physicians shared their time with me, describing birth trauma and their lived experiences providing clinical care for mothers and families. Many shared deeply personal stories about their growth as professionals and the challenges they face caring for birthing people in today's world. They shared stories of great joy as well as painful memories of loss and doubt. They often gave me more time than we had planned, because of their commitment to this health issue. It has been an honor to hear their heartfelt stories and to be a part of raising their voices and their stories. I have seen firsthand their deep commitment to the pregnant and birthing people they serve, as well as their commitment to their profession and the ongoing struggle to balance the provision of daily maternity care with their own emotional health and well-being.

I also am grateful to the University of Pittsburgh faculty who invested their time in my professional development as a researcher, reviewing the research with me, guiding me and pushing me throughout the dissertation development and completion. Jessie Burke has been my advisor and mentor since I first began the doctoral program, and her sense of humor and her understanding of both the science and the emotions of developing a doctoral dissertation have been an anchor throughout this process. Dara Mendez, Martha Terry, Patricia Documet and Judy Chang—you each brought such insight and wisdom to our discussions about this project, and I have learned so much from each of you. I will always value your guidance and mentorship.

Working at the Shadyside Family Medicine Residency while completing the PhD program allowed me to work with other exceptional healthcare professionals whom I also want to thank for supporting me as I pushed toward completion. Ben Skinker—I am fortunate to count you as both a mentor and a friend, and I thank you for the time and energy you have given to my path.

The birth community in Pittsburgh also played a huge role in moving this research forward, and I want to thank them for their on-going commitment to this topic and to my research. My experience providing birth doula services for five years and working as the director of a community-based doula program with key Pittsburgh birth advocates and experts informs my positionality in this research, as do my 10 years of experience as a reproductive health writer and editor. Way back at the beginning of this research, Michele Ondeck said "go for it" at a pivotal time. Kathy McGrath has been a source of inspiration and guidance from the beginning—Kathy, I am eternally grateful for your ongoing counsel and your friendship. Janice Anderson, Christine Andrews and Aya deChellis provided so much enthusiasm for the research and helped to recruit participants early on. Dannai Wilson at the Allegheny County Health Department helped me to stay involved in the broader maternal health community even as I focused on my research. Also, I am grateful to Kristina Wint who worked with me in the early stages as a second coder on the participant transcripts and who talked through the initial research findings with me. I also want to thank Tricia Pil for her willingness to meet with me and connect me to other birth trauma researchers. My gratitude to the Pittsburgh birth community would not be complete without thanking the Birth Circle Doula Program, including all the previous and current community-based doulas and birth doulas.

To my dear friends Lisa Libowitz and Helena Rho, my neighbor Beth Pacoe and my sister Lynda Kelley, I would not have made it through this without your on-going willingness to spend

always one more hour listening to me talk about my research. To Steve Libowitz, I thank you for your practical editing and your wise counsel. I also want to thank Dan Volz for his all-around enthusiasm for this endeavor.

On a deeply practical as well as personal level, I could never have completed this degree without the ongoing love, support and encouragement of my daughter Aysha and my son Daniel. You were both still in high school when I started on this journey, and you took it in stride as I headed to Oakland for evening classes, spent all Sunday morning completing biostats homework, and brought course readings to your sports events. We had many great evenings all plowing through homework together. Your births—in Baltimore and Pittsburgh—remain two of my most treasured life experiences. As always, I dedicate to you my efforts toward building a healthier future for all families. Finally, I dedicate this research and the future work that grows from it to two loving souls who did not live to see this work completed, but who both believed deeply in me and my dreams: my dear sister Catherine Salter, whose commitment to me and to my children enabled my doctoral study at such an unconventional point in life, and to Dr. Irene Frederick, a dear friend and mentor who helped me to draft the initial research questions, and who always maintained that when it comes to birth trauma, maternity healthcare providers have an important story to tell.

1.0 Introduction

More than half of the world's women experience childbirth at some point during their lifetime. In the United States nearly four million births take place each year. Although death from maternal causes in the United States remains relatively rare, the U.S. maternal mortality ratio is higher than in other high-resource countries, and that ratio is increasing rather than decreasing. At the same time, the national rate masks stark racial disparities in maternal health outcomes within the United States. In addition to these poor physical outcomes, a growing body of research describes an equally problematic maternal health outcome that demands attention: experiences of lasting psychological trauma symptoms among women after giving birth. This research, published primarily in the psychology, nursing, midwifery and perinatal education literature, has largely focused on women's narratives of their experiences of birth trauma. The perspectives and experiences of maternity healthcare professionals related to birth remain largely unexplored in the research literature, and they are the focus of this dissertation.

This dissertation examines the perceptions and experiences of patient birth trauma as described by currently practicing maternity healthcare professionals in the Greater Pittsburgh Area. The Background chapter of this qualitative public health dissertation includes a comprehensive literature review that defines birth trauma and describes the public health significance of the problem, including its impact on patients, families and healthcare professionals. Subsections identify gaps in the current knowledge and present the three specific study aims for this research, as well as a conceptual framework for the research. Chapter three details the research methods developed to carry out the study, and section three reports the research results. Chapter four provides discussion of the study results, situates the results within the context of the current

literature and reviews the study limitations. The final chapter summarizes the research findings and their public health implications and presents recommendations for future research.

It is important to note that not all pregnant people and people giving birth identify as women or with the term "mother." Those terms are used in this dissertation because all participants included in this research described their healthcare experiences working with patients who identified as women and who used the terms "mother" and "motherhood" to describe themselves and their experiences. Study participants did not describe any situations related to providing healthcare to pregnant or birthing people who do not identify as women. However, the experiences described in this dissertation are not meant to be exclusive to female-identifying pregnant and birthing people. This research topic and the healthcare experiences described in this dissertation may be particularly salient for people giving birth who do **not** identify as women or mothers.

1.1 Background

In the United States 3.79 million women give birth each year, and more than 98 percent of U.S. births take place in a hospital.[1,2] As the most common reason for a hospital stay, birth and the care of mothers and newborns accounts for the highest percentage of hospital costs billed to both private and public insurance.[3]

Maternal mortality, defined as a death within 42 days of pregnancy or delivery, excluding causes unrelated to pregnancy, is often seen as a health problem confined to low-resource countries. The U.S. maternal mortality ratio (MMR) is 17.2 deaths per 100,000 live births, twelve and a half times lower than the overall global MMR of 216 deaths per 100,000.[4] For comparison, in some low-resource countries, maternal death rates are nearly 35 times higher than in the United

States. However, looking at the U.S. MMR alongside the MMRs of other high-resource peer countries provides a less favorable comparison. For example, even substituting the lower U.S. MMR reported by the World Health Organization (WHO)—15 deaths/100,000 live births—the United States has a higher MMR than other high-resource countries, including Saudi Arabia, (12.1); New Zealand, (11); the United Kingdom, (9); Canada, (7); Spain, (5); Sweden, (4); Finland and Greece, (3). Additionally, WHO trend data show the U.S. MMR increasing, making the United States the **only** high-income country in a group of eight countries, which includes Afghanistan, Belize, El Salvador and the Sudan, with worsening maternal mortality ratios.[5] Also, the U.S. MMR of 17.2, already surprisingly high for a nation as wealthy as the United States, masks shocking racial disparities in maternal outcomes: the MMR for Black U.S. women is 40.8, compared to 12.7 for White women.[4]

Despite the increase in the MMR and the wide racial disparities, death and life-threatening injury from maternal causes remain rare events in the United States. Birth, in general, tends to be conceptualized as a safe event for U.S. women. Recently, however, two high-profile U.S. women experienced potentially life-threatening maternal complications, and the subsequent media coverage of their experiences pushed the potential risks of childbearing into the national spotlight. In 2017 Grammy Award-winning singer Beyoncé experienced preeclampsia—pregnancy induced hypertension—before the emergency caesarean section delivery of her twins. That same year, Grand Slam tennis champion Serena Williams suffered a pulmonary embolism—a blood clot blocking arteries in her lung—after the birth of her daughter, also via C-section.[6] Both women recovered, and they and their infants are healthy. But these serious maternity-related complications experienced by two celebrities—both women of color—focused national attention on maternal

health in the United States and have spurred increased public health research into the nation's increasingly poor maternal health outcomes and the continued wide racial disparities.

Exploring maternal health outcomes, particularly from a public health perspective, requires an understanding of birth as more than a potentially life-threatening biomedical event. Pregnancy and birth also are emotional and psychosocial events, with corresponding emotional and psychosocial outcomes.[7] A solely biomedical perspective focusing only on a physically healthy infant and a physically healthy mother can ignore or even negatively affect mothers' psychosocial outcomes, particularly when births take place in hospitals under the care of biomedically trained physicians.[8] Pregnancy and birth are major life events that have long-term impacts on women's psychosocial well-being. In all cultures, giving birth, especially for the first time, is seen as a transitional state that can have deep and lasting meaning.[9] Further, a mother's psychosocial wellbeing is not only an important outcome for the mother, it also is an decisive determinant of the infant's physical and psychosocial wellbeing,[7] in addition to the well-being of the woman's partner and family.

A growing body of research points to poor and sometimes long-lasting maternal outcomes involving mental and emotional impairment.[10,11,12] Recent research describes women's experiences with post-partum mental health symptoms that go beyond dissatisfaction with their birth experience or even post-partum depression to include post-traumatic stress symptoms (PTSS) and even full-blown post-traumatic stress disorder (PTSD) related to their experiences at delivery.[10,13] Trauma related to childbirth is differentiated from post-partum depression, which in most settings remains more widely recognized among both patients and maternity healthcare professionals as a post-partum mental health risk.[14] It is also worth noting that even behavioral

health providers who partner with maternity care providers about postpartum mood disorders may be largely unaware of birth-related trauma.[15]

The American Psychiatric Association's Diagnostic and Statistical Manual, 5th edition (DSM-V), the reference used for mental health diagnoses, defines "trauma" as exposure to actual or threatened death, actual or threatened serious injury or sexual violation. Recent revisions to the DSM-V include in that definition the recurring exposure to traumatic events, such as that experienced by police officers, first responders and medical personnel.[16] To meet diagnostic criteria for trauma, the experience must cause "clinically significant distress or impairment in the individual's social interactions, capacity to work or other important areas of functioning."[16] The DSM-V groups post-traumatic symptoms into four clusters: 1) intrusion (re-experiencing the traumatic event via flashbacks, recurrent dreams, intrusive thoughts); 2) avoidance (avoiding memories or reminders of the event); 3) negative alterations in cognition and mood (a persistent and distorted sense of blame of self or others, estrangement, markedly diminished interest in activities, or inability to remember key aspects of the event); and 4) arousal (increased startle response, irritability, aggressive, reckless or self-destructive behavior, sleep disturbances, hypervigilance).[16]

Women reporting birth trauma may experience any or all of these symptoms, and their experiences have been explored qualitatively in the psychology, nursing, midwifery and perinatal education literature. One Pittsburgh woman, a pediatrician who gave up her clinical practice after experiencing birth trauma, described her experience in an article called "Babel: the voices of a medical trauma":

> In the months after my son's delivery, it was as if a curtain had descended over my life. In addition to a terrible feeling of numbness, I was haunted by flashbacks and nightmares about what had happened. Billboards for the hospital where I'd delivered, people dressed in scrubs, pregnant women, a favorite red velvet cake that

> now resembled to me a large blood clot, and worst of all, my own baby—the sight of any of these could trigger flashbacks and counts of heart-stopping, sweat-drenched panic.[17(p3)]

1.1.1 A Word About the Word "Trauma"

A meaningful exploration of birth trauma as a public health problem must acknowledge the current overuse of the word "trauma," both in the United States and in other English-speaking countries. The definition of the word trauma (of Greek origins, dating back to 1690 and meaning "wound") includes a first dictionary entry relating to biology: *"a body wound or shock produced by a sudden physical injury, as from violence or an accident"* and a second entry relating to psychology: *"an experience that produces psychological injury or pain."* The sense of a "psychic wound" originated in 1894.[18]

In 2012, a *Psychology Today* article titled "Abusing the Term Trauma" warned that clinicians were mis-labeling symptoms and generally over-diagnosing trauma.[19] Another psychologist describes overuse of the word *"trauma"* and the phrases *"being traumatized"* and *"traumatic event,"* as moving beyond clinicians to being overused in popular culture. He cites examples of people claiming to be traumatized by political responses to congress, graduate research training, and bad hair days.[20] He notes that Google searches that include the word "trauma" grew by one third between 2011 and 2016: *"Trauma now seems to be pretty much anything that bothers anyone, in any way, ever."*[20(p4)] Another psychologist specializing in trauma treatment cautions that the word is "grossly overused for general psychological distress, and should be reserved for distressing and disturbing events that involve a threat to the life, bodily integrity or sense of self, when the stress experiences exceeds the person's ability to cope."[21(p1)] Awareness of the general public's tendency to overuse the word "trauma" is an important caveat to this

dissertation's exploration of maternity healthcare professionals' perceptions and experiences of patient birth trauma.

1.2 Overview of the Public Health Problem

1.2.1 Scope of the Problem

The research exploring the prevalence of post-traumatic stress symptoms among women related to birth reports widely varying rates, with some early studies reporting PTSS rates among people who have given birth as high as 34%[22] and rates for those meeting the psychiatric criteria for PTSD ranging from 1.7 to 9%.[12,23,24] Not surprisingly, PTSD prevalence rates are higher in studies that focus on mothers with poor physical birth outcomes. For example, a study of mothers whose infants were stillborn found that 20% had PTSD.[25] A 2014 meta-analysis that reviewed 78 studies reported a prevalence of PTSD among postpartum women of 2.9%.[26] The 2012 analysis of the Listening to Mothers II study, a two-stage national survey involving 1,573 U.S. women, found PTSD prevalence at 9%, and PTSS prevalence at 18%.[12] To put these prevalence rates in perspective, the National Center for PTSD estimates cumulative prevalence of PTSD over the last four decades between 10% to 30% for veterans experiencing active duty for U.S. military operations in war zones.[27] Given the 3.79 million births annually in the United States, these prevalence rates—1.7% to 9% for full PTSD and 18% for PTSS—translate to as many as 341,000 women potentially experiencing full PTSD and more than 680,000 women experiencing post-traumatic stress symptoms related to childbirth.[12] Although research often focuses specifically on PTSD, it is important to recognize that coping with any level of post-traumatic stress symptoms

after giving birth can present both physical and psychosocial health problems for new mothers and their families.

1.2.2 Health Consequences for People Who Give Birth

Post-traumatic symptoms after childbirth have severe effects on the health of women and families and can diminish women's quality of life in both the short and long term.[12,28–32] Research results are conflicting about the course and severity of PTSD or PTSS following childbirth, but symptoms appear to plateau over the course of the first 12 months postpartum.[33–35] Although some women experience initial improvement of some symptoms over time, after six months much less spontaneous recovery occurs, and those with full PTSD may experience no additional decrease in symptom severity over time without treatment.[23,36]

Women with post-traumatic stress symptoms report both psychological distress and persistent physical pain.[28,37–39] Some women report suicidal tendencies,[31,40] and some women report anger as a result of childbirth-related trauma[41] and feelings of isolation from their partners and their infants, numbness and detachment from their lives.[31,42–46] Some report avoidance or fear of future pregnancy and childbirth.[44,46–48] One study found that women who previously experienced traumatic birth were focused from the start of their subsequent pregnancy on ensuring that the birth was not like the first experience and avoiding loss of control to other people during the birth.[49] In some cases women may not report symptoms because of the social pressure to be happy during early motherhood.[50] Negative effects can persist years after the birth and for some women distressing emotions are linked to feelings of failure as a parent.[12,24,37,45]

One Swedish study, exploring the lifetime effects of disempowering or traumatic maternity care experiences, found that women continued to experience grief and guilt years after the birth

experience. The study described these health-care-related events as "dignity violations," which can be associated with longer-term consequences such as social isolation, diminished self-esteem, reluctance to seek help, and chronically poor physical or mental health.[32] Some women report feeling "nullified,"[51] and many women describe having no opportunity to express their feelings or talk about their experiences; they fear that their trauma will be dismissed or not taken seriously by others, including their healthcare providers.[52]

Women reporting trauma related to birth also have more doctor's visits,[24] and use additional support services at higher rates than women without trauma.[24,30] In addition, PTSS and PTSD are often comorbid with other postpartum mood disorders, as well as substances abuse, which may lead to misdiagnosis and improper or incomplete treatment.[12,35,53–55]

Treatment for Birth Trauma. Research into treatment for PTSD and PTSS resulting from a variety of causes has found that trauma-based Cognitive Behavioral Therapy (CBT), exposure therapy, and eye movement desensitization and preprocessing (EMDP) can effectively mitigate post-traumatic stress symptoms.[13] However, research into the treatment of PTSD following childbirth is limited, in contrast to research into treatment for non-childbirth related PTSD. Most research into management of birth-related PTSD has focused on debriefing and counseling interventions, which have yielded inconsistent results,[50,56–58] including some findings that debriefing may increase the risk of developing PTSD.[59] Beginning in 2000, midwife-led debriefing sessions were commonly used with postpartum women in the United Kingdom,[60] but a recent review of these interventions has shown inconsistent results.[61] Researchers, however, agree that women need opportunities to discuss the birth afterward and access to the services of psychologists and psychotherapists.[13,22]

Similar to people experiencing PTSD from other causes, women with PTSD and PTSS following childbirth appear to respond well to CBT and EMDP. One intervention offered short, cognitive group therapy to nine women who showed improvement of symptoms;[50] another study described the successful use of tailored CBT with two women,[62] and an EMDP pilot study with four women reported symptom improvement.[63] Despite showing promising results, these treatment studies have not been replicated on any scale.

Another innovative approach demonstrated reduced PTSD symptoms using creative writing practice in a study with 113 Italian women.[64] Pharmacologic treatment has not been adequately assessed, although one study found that treating insomnia can reduce daytime PTSD symptoms.[65] Overall, few tailored professional support services are available for women after traumatic birth or prior to subsequent birth. Online support groups and resources have proliferated, such as one webpage called Solace for Mothers[66] but no research has evaluated their content or effectiveness.

1.2.3 Health Consequences for Newborns

Birth trauma interferes with mother-infant attachment,[28,43,67,68] and mothers sometimes view infants as reminders of the traumatic event and avoid contact with them.[28] Birth-related trauma has a negative impact on breastfeeding[29] and may result in poor outcomes for infants and children, including poor cognitive functioning, language impairments, and physical, emotional, psychosocial and behavioral problems similar to those seen in children whose mothers experience post-partum depression or anxiety.[24,69] Although little research has focused specifically on the infant health effects of PTSD or PTSS, the negative effects of postpartum mood disorders (most commonly depression and anxiety) have been well documented in the literature, and include

decreased breastfeeding and maternal-infant attachment,[70,71] delayed motor skill development, motor and socio-emotional development at one year,[72] impaired infant cognitive scores at 18 months,[73] and anxiety and oppositional defiant disorder in children up through age six.[74]

1.2.4 Health Consequences for Partners and Families

Birth trauma also affects couples' relationships; women report disagreements with their partners, blaming partners for birth events,[44,45,68,75] and some women experience sexual dysfunction.[31] Partners also can experience post-traumatic stress symptoms or extreme distress after childbirth[75–77] including anxiety.[78] In one recent qualitative study based in the United Kingdom, fathers described the birth as a "rollercoaster" that included sudden mood changes and cumulative stress from watching their partner's experience. Many experienced fear that their partner or baby would die. Fathers described ongoing feelings of anxiety and guilt that, in some cases, subsequently affected their job performance. Some expressed a need for resources and support, but at the same time a reluctance to receive additional help.[76] Treatment for partners remains underdeveloped, although research into partners' experience has increased awareness of partners' needs for education and support.[79,80]

Prevention of Birth Trauma. It is well-documented in the literature that women who have continuous emotional support during labor have better psychological and physical outcomes[81] and that support during birth can mediate fear[82] and pain.[83] Early birth trauma research completed by psychologists concluded that "providing reassurance, support, and identifying and dealing with interpersonal difficulties [during the birth] may prevent a birth being experienced as traumatic."[54(p1174)] A 2016 review of the midwifery literature concluded that high quality maternity care that meets woman's "stated and implied needs"[50] can limit potential for traumatic symptoms

related to birth.[84] Additionally, ensuring that women have an opportunity to ask questions has been found to have a protective effect.[84]

Research focusing on women's birth satisfaction, rather than trauma, consistently demonstrates that during birth women need support that includes quality interactions and communication with their health care providers both during and after labor,[22,85,86] and involvement in their health-care decision-making.[34,81]

Yet this knowledge about the importance of continuous support during labor and delivery is not always translated into specific efforts to prevent birth trauma. Trained doula support is associated with improved physical outcomes, reduced C-section rates, increased breastfeeding, and reduced postpartum depression[87] but has not been explored specifically in relation to birth trauma prevention. In a 2016 Dutch study conducted online with 2,192 women reporting symptoms after birth, participants said that better caregiver communication or support could have reduced or prevented their trauma.[88]

It is of interest that women's perceptions of their birth experience can remain remarkably stable over time. One researcher who asked women who had just given birth to write birth stories about their experience in labor found that when she re-interviewed those women more than 20 years later, the stories and women's memories of the birth remained largely consistent.[89,90] She notes that across the birth stories, in women's assessment of their birth experience, "the most important single factor was how they remembered being cared for, by their doctors or nurses."[91]

1.2.5 Negative Consequences for Healthcare Professionals

Although childbirth-related trauma is most commonly experienced by people giving birth, others present at the birth, including medical providers, can experience trauma-related symptoms

following birth.[75,92,93] Labor support and perinatal educators also can experience secondary trauma from birth.[94] These negative, trauma-related responses have been described as the "cost of caring"[95] and are receiving increasing research focus in many areas of health care, as well as maternity care. Trauma-related responses among health-care providers can include secondary traumatic stress, compassion fatigue, burnout and moral distress. These responses are distinct, yet inter-related, and brief descriptions are provided below.

Secondary Traumatic Stress. The term "Secondary Traumatic Stress" (STS) refers to a stress response that results from "witnessing or knowing about the trauma experienced by significant others" and has replaced the term "vicarious trauma," which previously was used to describe outcomes from "working directly with traumatized populations and … negative transformative processes experienced by the health professionals when exposed to traumatized patients."[93(p38)] Healthcare professionals can experience intensely negative ongoing psychological responses after trauma, including feelings of responsibility and failure.[80,93,96] Symptoms may be similar to the four categories described for primary trauma: 1) re-experiencing the event, (flashbacks, nightmares, intrusive thoughts); 2) avoidance (avoiding reminders of the event); 3) numbing (feeling emotionally numb and detached); and 4) arousal (increased startle response, irritability, or anger).[16]

Maternity healthcare professionals are at high risk for regular exposure to traumatic maternity care experiences. For example, a 2016 national survey of 2098 Danish obstetricians and midwives found that 85% (n=2017) reported being involved in a traumatic birth,[97] and a 2017 meta-ethnography of 11 qualitative studies said that many midwives and nurses were traumatized by real-life labor-and-delivery emergencies.[80]

Compassion Fatigue and Burnout. The term "compassion fatigue" is often used interchangeably with secondary traumatic stress, and a recent review describing the evolution of the conceptualization of "compassion fatigue" concluded that "secondary trauma" is a surrogate term for compassion fatigue. That review distinguished compassion fatigue from "burnout," another term for emotional exhaustion that is "more related to the cumulative effects of stressors of a job, particularly when one believes that there are not enough resources to meet the needs of the job.[98(p560)] In contrast, compassion fatigue is defined as "the diminished capacity of a health professional when experiencing distress at knowing about or witnessing the suffering of their patients and clients."[99(p456)] This conceptualization of compassion fatigue may be relevant in high-volume maternity care settings. Another review that explored compassion fatigue, vicarious trauma and secondary traumatic stress among health care providers concluded:

> Common characteristics between these three constructs are that they may be experienced by anyone working in a helping and caring profession, they are the result of exposure to the suffering of others, and such experiences may result in long term negative effects on one's ability to perform one's professional role and maintain safe and effective therapeutic relationships with patients and clients.[93(p39)]

No research was identified exploring compassion fatigue specifically among maternity care providers, although research into burnout reporting a high rate among obstetric residents[100] may be applicable to healthcare professionals working in high-acuity, high-volume maternity care settings.

Moral Distress. The term "moral distress" originates from the nursing literature, where it was first used in 1984 to describe ethical conflicts faced by nurses providing patient care. Moral distress "arises when one knows the right thing to do but institutional constraints make it nearly impossible to pursue the right course of action."[101(p6)] It has been identified as a growing concern in healthcare that has both short-term and long-term consequences. The current conceptualization

of moral distress was originally researched among nurses, but is seen as potentially affecting physicians, pharmacists, social workers, and health care administrators.[102] Early research found that nurses who experience moral distress may withdraw, leave their positions or they might stay, raise objections and voice their concerns. Researchers have argued that systemic changes are needed to address increasing reports of moral distress among healthcare professionals and even administrators. Although no research has specifically explored moral distress in relation to birth trauma, the idea of systemic constraints to care provision may be applicable to healthcare professionals working in high-volume maternity care settings.

Treatment for Clinicians. For healthcare professionals experiencing negative responses to trauma, treatment remains limited and has focused almost exclusively on debriefing sessions.[93,94,97,103,104] The few research studies that have explored providers' response specifically to traumatic birth invariably conclude that providing meaningful opportunities for healthcare professionals to discuss and process traumatic births is key to both the providers' well-being and the health facility's ability to maintain and provide high-quality maternity care.[105,106] One review in the nursing literature (not focused on maternity care) concluded that "organizational and collegial support needs to be available to enable these health professionals to talk about their feelings and concerns."[80(p4184)] This review highlighted how healthcare professionals often adopted individual coping mechanisms and how they wanted both informational and emotional support for their distress. The authors of this review recommended "organizational support structures" and the inclusion of clinicians to guide policy makers in developing "holistic and effective" support systems.[104] One analysis of compassion fatigue among nurses called for psychiatric education for maternity nursing, including screening, education for providers, and funding for research.[55] The 2016 national survey of Danish obstetricians and midwives described earlier also concluded that

"handling of the aftermath of these events is important when caring for the psychosocial health and well-being of the obstetric and midwifery staff." [97(p52)]

1.2.6 Negative Consequences for Health Systems

The potential for unresolved experiences with patient birth trauma to contribute to burnout, secondary traumatic stress (compassion fatigue) and moral distress among maternity healthcare professionals leads to larger questions of potential impact on the health system, including quality of care, health outcomes, and costs. Currently, not enough is known. A 2016 integrative review of 43 studies on compassion fatigue concluded that additional research is needed into compassion fatigue among healthcare providers in a variety of specialties and settings to better understand the degree to which it affects patient interactions, including patient outcomes and provider quality of professional life.[99] But in an attempt to quantify the potential impact to a health system in terms of costs, another review pointed out that the turnover of a single registered nurse can cost a health facility from $36,900 to $57,300, and that such health professional turnover costs $729 million per year in the United States. This kind of cost analysis highlights that, in addition to the personal and professional costs to individual healthcare professionals experiencing compassion fatigue or other negative psychosocial effects, the turnover among healthcare professionals takes a toll on the overall healthcare system, potentially creating downstream impacts on provider satisfaction and patient outcomes.[98]

2.0 Review of the Literature

Historically, the earliest research into "birth trauma" was biomedical in approach and referred solely to physical injuries sustained by the newborn or mother during labor or delivery. For infants, "birth trauma" includes injuries such as the following:

- Clavicle fracture;
- Facial nerve injury;
- Brachial plexus injury (resulting when the baby's shoulder becomes stuck in the birth canal and subsequent nerve damage affects the infant's ability to rotate the affected arm);
- Cerebral palsy, (a group of neuromuscular disabilities that affect the infant's ability to control movement, resulting from oxygen deprivation when the umbilical cord becomes entangled or compressed or if the placenta separates prematurely); and
- Fetal lacerations during Cesarean-section.

For mothers, physical injuries described as "birth trauma" include the following:

- Pelvic floor damage;
- Internal organ damage, and
- Perineal tearing (which is estimated to occur in 85% of births), including damage to the vagina, urethra or anus.[107]

But in the 1990s, a body of literature describing mothers' poor psychosocial outcomes after childbirth began emerging, which included descriptions of psychological trauma following childbirth. This research used as its starting point the 1980 definition of post-traumatic stress disorder (PTSD), which appeared for the first time that year in the American Psychiatric

Association's Diagnostic Statistical Manual (DSM-III).[108] Early PTSD criteria specified that the precipitating event must be "outside the normal range of experience," but the 1995 DSM-IV entry was amended to recognize that the individual's "perceived threat" and response could meet the criteria for trauma.[109]

Subsequently, a growing body of research explored the possibility of traumatic symptoms and PTSD after childbirth.[37,38,43,110,111] This early research took place in Sweden, the United Kingdom and Australia, with one study in the United States in 2003.[22] The early literature used a range of terminology to describe the condition, including *traumatic childbirth, psychological birth trauma, birth-related trauma, partus stress reaction, traumatic stress reaction,* and *psychological trauma during childbirth*, and many studies were published in the psychology literature (*The Journal of Anxiety Disorders*, *British Journal of Clinical Psychology*, *The Journal of Reproductive* and *Infant Psychology*).

During that period some researchers suggested differentiating birth-related trauma from PTSD in general, and proposed such labels as "*partus stress reaction*"[79] or "*postnatal stress disorder*."[11] In 2006, an international group of researchers, clinicians and patient representatives met in London and agreed upon the term "*PTSD following childbirth*."[11] However, the term "*birth trauma*" is commonly used in the literature to describe traumatic stress reaction to birth in the absence of formal assessment for PTSD criteria. This dissertation uses the general terms "*childbirth-related trauma*" and "*birth trauma*" to refer to this type of psychological or emotional harm. As noted earlier in this dissertation, although the research described here often focuses specifically on PTSD, coping with any level of post-traumatic stress symptoms after giving birth can present both physical and psychosocial health problems for new mothers and their families.

2.1 "Objectively Traumatic Obstetric Events"

Early research into PTSD following childbirth was patterned after research into the risk factors for PTSD following other kinds of traumatic events, which included patient history of psychopathology, family history of mental health issues, history of sexual or physical abuse, low intelligence and neuroticism.[24,112] Early research into birth trauma found significant associations with preexisting psychopathology,[38,67,111,113] high trait anxiety,[38] and mothers' expectations of pain.[110,111] Early research often included an underlying question of whether childbirth itself constituted an actual "traumatic event," since childbirth is a common event that is considered "normal,"[114] as opposed to events such as assault or natural disasters. Giving birth, however, can involve events that are commonly regarded as traumatic, such as death of the infant, life-threatening complications for the mother or infant, and emergency medical interventions. These obstetric events, sometimes referred to as "objectively traumatic events," aligned more closely with the overarching definition of traumatic events, and so they figured prominently in early birth trauma research.

Research often focused on cesarean section delivery, emergency delivery or life-threatening complications, and preterm delivery (with subsequent infant stays in the neonatal intensive care unit). Not surprisingly, women experiencing those birth situations had higher rates of traumatic symptoms.[47,67,110,112,115] In one small study of mothers who experienced preterm delivery (and Neonatal Intensive Care Unit admission for their infants), all 26 mothers were found to have posttraumatic stress symptoms at six months.[116] Early research noted that PTSS symptoms were more common among mothers who experienced increased medical intervention.[37,115] In 2001, two British researchers set out to "establish prospectively if postpartum posttraumatic stress

disorder is a genuine phenomenon."[23(p113)] That study reported a 1.5% to 3% prevalence of posttraumatic stress disorder and concluded that women **do develop** PTSD following childbirth.

An important early finding was that a history of sexual abuse or trauma was associated with increased risk of developing PTSD following childbirth.[110,117] One U.S. study of 103 women found that women with history of sexual trauma were 12 times more likely to experience the birth as traumatic.[22] In 2004, Simkin and Klaus published a book-length exploration of the experiences of sexual abuse survivors during childbirth and their heightened risk for experiencing birth as traumatic.[117] The authors recommended increased support from caregivers and others to minimize re-traumatization.

2.2 "Subjective Distress" and Patient Experience

A shift in the orientation of birth trauma research occurred in the early 2000s, as research began documenting women's experiences of post-traumatic stress symptoms, as well as full-blown PTSD, following both complicated ***and*** uncomplicated childbirth.[11,112,118] For example, in 2002 a study of 1,550 Swedish women reported that:

> It is of clinical importance, however, that most women with a PTSD symptom profile were found in the normal vaginal delivery group (NVD). This implies that a normal vaginal delivery can be experienced as traumatic, just as an emergency cesarean is not necessarily traumatic.[118(p31)]

This realization that women could experience post-traumatic stress symptoms in the absence of "objectively traumatic" circumstances gained ground during this period. A small U.S. study noted that "characteristics of the event [childbirth] appeared more salient predictors than the psychosocial factors collected before the birth."[22(p43)] In 2004, researcher Cheryl Beck published

"Birth Trauma: In the Eye of Beholder," which described the results of her qualitative study involving 40 mothers from the United States, the United Kingdom, Australia and New Zealand. She described birth trauma as "an event occurring during the labor and delivery process that involves actual or threatened serious injury or death to the mother or her infant."[28(p1)] She also noted that despite the study participants' experiences of their births as traumatic, their health care providers often perceived and recorded the births as normal and uncomplicated.[28]

These emerging reports of women experiencing birth trauma symptoms in cases of uncomplicated delivery led to renewed efforts to better define the factors associated with birth trauma. To understand the research investigating those factors, as well as to gain insight into the thinking that informed early research into birth trauma, it is useful to review briefly two seminal studies, one systematic review of the quantitative research and one meta-ethnography of the qualitative research.

The systematic review, published in 2012, developed a quality rating system to weigh and compare 31 research studies about birth-related trauma. This review was an important contribution because early research varied widely in the timing of patient assessment for trauma, as well as the trauma assessment instruments used. The authors graded 27 observational studies and four reviews and weighted the study results based on study quality. They concluded that the two main factors associated with birth trauma are "subjective distress in labor" and "obstetric emergencies."[119]

This review usefully established that subjective distress in labor, even in the absence of obstetric emergencies, is actually a stronger indicator of the likelihood of developing birth trauma symptoms than obstetric emergencies. Specific factors included within the category of "subjective distress in labor" included negative emotions or experience of labor, loss of control, pain and fear.

This category "subjective distress," however, is perhaps better understood by examining the qualitative literature.

In 2010 a meta-ethnography synthesized 10 qualitative birth trauma research studies that included interviews with 398 women from the United Kingdom, the United States, New Zealand and Australia.[45] This meta-ethnography distilled four themes relating to women's descriptions of their childbirth experiences: 1) "feeling invisible and out of control," 2) "being treated inhumanely," 3) "feeling trapped," and 4) experiencing a "rollercoaster of emotions."[45] The theme of "feeling invisible and out of control" distilled accounts from six research studies and included women's descriptions of poor communication[120] and lack of understanding from healthcare providers[28,40] and women's perceptions of being ignored,[45] as well as women's descriptions of healthcare providers as "too busy" to explain what was happening to them.[43] Women also described providers as "faceless"[45,120] and reported feeling "invisible" when providers talked as if they (the women) were not there.[28] Another key element was that women reported that they felt excluded from decision-making. Under the theme of "being treated inhumanely," women described their childbirth experience as degrading and "barbaric." The meta-ethnography concludes that:

> Our findings indicate that women are often traumatized as a result of the actions or inactions of midwives, nurses and doctors.[45(p2150)]

The authors point out that they are not suggesting that health care providers are intentionally behaving in ways that result in women developing post-traumatic stress symptoms following childbirth. Instead, these findings describe the real, albeit unintended, harm that some women experience as a result of their interactions with healthcare providers during birth.

2.3 Patient-Provider Interactions and "Hotspots"

Some researchers seeking to achieve a more comprehensive understanding of PTSD following childbirth, however, proposed focusing on specific parts of the birth experience, rather than the whole birth:

> Research examining what makes birth traumatic tends to take one of two approaches. The majority of research has looked at factors that are associated with postpartum PTSD, such as psychiatric history or type of delivery. This approach makes *a priori* assumptions about which factors are likely to be important
>
> …The second approach to examining what makes birth traumatic is a qualitative one, where women who have experienced a traumatic birth are asked to recount their birth experiences and themes are extracted…
>
> Another way to examine what makes birth traumatic is to focus on moments of extreme distress or perceived threat during birth. These have been described in the trauma literature as peritraumatic "hotspots."[54(p1167)]

In their 2012 study, researchers Ayers and Harris identify potential "hotspots" for trauma. The concept of identifying "hotspots" is commonly used in psychotherapy to describe "specific parts of the trauma memory that cause highest levels of emotional distress."[121(p5)] For this study, the authors conducted an internet survey of 675 women who had experienced difficult or traumatic births. More than half of the study participants fulfilled criterion A (re-experiencing) for traumatic birth, and 18.8% had PTSD. The largest category of hotspots identified in this study involved "interpersonal difficulties," and most frequently the subcategory of "being ignored." This type of hotspot was the strongest predictor of PTSD, with a 4.34 Odds Ratio,[54] suggesting that the general phrase of "subjective distress in labor" as a risk factor may group birth experience components together and obscure potentially productive points for additional research and intervention. Other "hotspots" included lack of support, poor communication, being abandoned and being put under pressure.[54]

A 2017 mixed-methods study further explored women's descriptions of healthcare provider interactions in relation to birth trauma. That study recruited 748 women online, who then completed psychological self-assessments and answered open-ended questions about their experience. When asked to describe what they considered to be traumatic about their birth, two-thirds of participants described interactions with healthcare providers.[122] The themes from participant descriptions included 1) "prioritizing the care provider's agenda," 2) "disregarding embodied knowledge," 3) "lies and threats," and 4) "violation." The authors concluded that "Care provider actions and interactions can influence a woman's experience of trauma during birth."[122(p1)] and recommended that maternity care services prioritize women's emotional as well as physical needs.

2.4 Overlap with Mistreatment

Another attempt to delve more deeply into the categories of "subjective distress" and "poor provider communication" associated with women's descriptions birth trauma was a 2008 study titled "Widening the trauma discourse: the link between childbirth trauma and experiences of abuse." That study analyzed the birth narratives of 14 U.K. women to attempt to understand the meaning women ascribe to their experiences:

> Women used powerful and highly evocative words such as 'barbaric,' 'intrusive,' 'horrific' and 'degraded' to describe their traumatic birth. Analysis of birth stories uncovered correspondence with the previous literature of abuse in health care settings… The women's repeated descriptions of torture and abuse were considered to warrant further exploration. Subsequent readings of the wider trauma literature uncovered resonances between the findings of this study, and accounts of crime victim's experiences of violence and abuse.[120(p270)]

The authors point out that previous studies have drawn comparisons between the narratives of women experiencing birth-related trauma and narratives of victims of violence including Beck's earlier phenomenological work[12,28,40] and one other small study.[41] Even the research cited earlier in this dissertation, despite often focusing on women's prior pathology or the obstetric events at the birth, also noted significant associations between PTSD and a) hostile or uncaring treatment by healthcare personnel,[67,110,111] b) inadequate patient information,[38,110] c) patient's lack of consent,[110] d) absence of partner or lack of support,[37,38] and e) dissatisfaction with labor and delivery care.[37]

In calling attention to these "interaction" issues, the authors drew upon broader literature exploring the concept of "violence in the everyday in healthcare" and cautioned:

> …these insights are offered from a wholly woman centered perspective. We do not suggest that the intentions of health professionals are the same as those of perpetrators of torture and abuse. Indeed … we would emphasize that the acts that generate such experiences are often unconscious and unintentional. However, we are strongly of the view that exposing the impact of these experiences is essential, to demonstrate that routine "care" can create harm and distress for some women.[120(p. 270)]

The idea that "routine care" can cause harm further emphasizes the need for a more comprehensive approach to birth trauma that examines the health system context in which birth takes place. A 2009 editorial in the *Journal of Perinatal Education* addressed the potential connections between trauma and mistreatment head on:

> Are laboring and birthing women treated abusively in the hospital? Although seldom recognized as abuse or violence against women, bullying and medical treatments under false pretenses, even in a hospital, constitute abuse and a basic human rights issue that needs attention. Naming the problem is a first step. The power of medical authority, the lack of accountability in the hospital hierarchical system, policies and protocols and expectations of compliancy all make an environment ripe for abuse and present obstacles for both women and staff to recognize or stop abuse.[123(p8)]

The idea that "routine care" could cause harm or even be potentially abusive is especially relevant for maternity care, given that some women report post-traumatic symptoms following births that are recorded as "normal" and "uncomplicated" in the medical chart, indicating that even when physical health goals are met, psychosocial health may have been compromised.

Deeper exploration into potential connections between mistreatment and "interpersonal difficulties," as they often are categorized, is lacking in the birth trauma literature, but the global health research literature includes a broad exploration of disrespect and mistreatment of women at birth, particularly in health facilities. That research uses as its baseline the WHO recommendations for "woman-centered maternity care" as "a fundamental human right of pregnant women and babies in facilities."[124(p1)] The guidelines define Respectful Maternity Care (RMC) as

> Care organized for and provided to all women in a manner that maintains their dignity, privacy and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support during labour and childbirth…[124(p1)]

In 2015, a group of researchers completed a systematic review of the global health literature on women's maternity care and developed a typology of mistreatment based on the descriptions of maternity patients. The authors used thematic synthesis to distill the studies' findings into seven broad types of mistreatment: 1) Physical abuse, 2) Sexual abuse, 3) Verbal abuse, 4) Stigma and discrimination, 5) Failure to meet professional standards of care, 6) Poor rapport between women and providers, and 7) Health system conditions and constraints.[125]

The mistreatment typology reports data from 65 studies from 34 countries, including Zimbabwe, Argentina, Iran, Japan and the Ukraine. The Bohren et al. typology is shown in Table 1. It does not, however, describe any research in the United States or any of the other countries represented in the birth-related trauma studies previously described in this dissertation. Although

maternity care settings in the United States differ greatly from those in the countries where research into mistreatment has taken place, clear overlap is evident between the themes listed in mistreatment typology and women's descriptions of birth trauma. For example, women in research studies from both contexts report feeling ignored by providers, receiving inadequate information, receiving inadequate support, feeling disrespected and humiliated, and having their concerns dismissed. The typology includes third-order themes of actual treatment, then distills those into second-order and first-order themes. Although some of the third-order themes might not seem applicable to U.S. maternity settings, the first order themes, which are broader and categorical, can be useful for examining the U.S. setting as well. As described by the authors, the typology:

> is an evidence-based classification system of how women are mistreated during childbirth in health facilities, based on the findings of the evidence synthesis. The first-order themes are identification criteria describing specific events or instances of mistreatment. The second- and third-order themes further classify these first-order themes into meaningful groups based on common attributes. The third-order themes are ordering from the level of the interpersonal relations through the level of the health system."[125(p243)]

Table 1 Typology of mistreatment of women during childbirth

First-Order themes	Second-Order Themes	Third- Order Themes
Physical abuse	Use of force	Women beaten, slapped, kicked, or pinched during delivery
	Physical restraint	Women physically restrained to the bed or gagged during delivery
Sexual abuse	Sexual abuse	Sexual abuse or rape
Verbal abuse	Harsh language	Harsh or rude language
		Judgmental or accusatory comments
	Threats and blaming	Threats of withholding treatment or poor outcomes
		Blaming for poor outcomes
Stigma and discrimination	Discrimination based on sociodemographic characteristics	Discrimination based on ethnicity/race/religion
		Discrimination based on age
		Discrimination based on socioeconomic status
	Discrimination based on medical conditions	Discrimination based on HIV status
Failure to meet professional standards of care	Lack of informed consent and confidentiality	Lack of informed consent
		Breeches of confidentiality
	Physical examinations and procedures	Painful vaginal exams
		Refusal to provide pain relief
		Performance of unconsented surgical operations
	Neglect and abandonment	Neglect, abandonment or long delays
		Skilled attendant absent at time of delivery
Poor rapport between women and providers	Ineffective communication	Poor communication
		Dismissal of women's concerns
		Language and interpretation issues
		Poor staff attitudes
	Lack of supportive care	Lack of supportive care from health workers
		Denial or lack of birth companions
	Lack of autonomy	Women treated as passive participants during childbirth
		Denial of food, fluids or mobility
		Lack of respect for women's preferred birth positions
		Denial of safe traditional practices
		Objectification of women
		Detainment in facilities
Health system conditions and constraints	Lack of resources	Physical conditions of facilities
		Staffing constraints
		Staffing shortages
		Supply constraints
		Lack of privacy
	Lack of policies	Lack of redress
	Facility culture	Bribery and extortion
		Unclear fee structures
		Unreasonable requests of women by health workers

(Bohren et al. 2015)

In 2018, U.S. birth trauma researcher Cheryl Beck used the Bohren et al. mistreatment typology to re-analyze qualitative data she had collected, which included 40 women's narratives of birth trauma, including eight U.S. women. Her analysis found six of the seven types of mistreatment represented in women's accounts of their traumatic birth experiences.[126] In order (from most common to least common) she found women's accounts included reports of 1) Failure to meet professional standards of care, 2) Poor rapport between women and providers, 3) Verbal abuse, 4) Physical abuse, 5) Health system conditions and constraints, and 6) Stigma and discrimination. None of the women's accounts was found to fit into the category of "Sexual abuse." This 2018 study found clear overlap between what is referred to as "birth trauma" in high resource countries and the "mistreatment" in the global context.

Another study published earlier in 2019 used patient-designed indicators of mistreatment that align with the Bohren et al. typology to explore descriptions of disrespectful maternity care among U.S. women.[127] That study surveyed 2,138 women on-line to quantify the prevalence of mistreatment by race, socio-economics, and other factors and found that one in six women (17.3%) reported experiencing one or more types of mistreatment, including loss of autonomy, being shouted at, scolded, or threatened, and being ignored.[127]

2.5 Exploring Discrimination and Racial Bias in Mistreatment and Birth Trauma

The comprehensive literature review completed for this dissertation identified no research that included exploration of race or ethnicity in relation to psychological birth trauma. One study, however, explored risk of general PTSD among Black women and concluded that although Black women were at higher cumulative risk for PTSD, their vulnerability might be buffered somewhat

when they have social support.[128] One trauma researcher, however, cautions that "Key tenets of trauma theory may not apply to ethnic minority and other marginalized groups in the United States."[129(p312)] For example, some evidence from the sexual assault literature suggests that after a traumatic event, women in some cultural groups might experience intrusive thoughts but not the avoidance/numbing and hyper-arousal that are necessary for PTSD diagnosis. Instead they may experience depression, low self-esteem, self-blame and stress-related physical symptoms, which fall outside classic descriptions of PTSD. These findings point out that little is known about the ways in which traumatic response might vary across populations and cultures. Researchers exploring trauma experiences among immigrants and refugees caution that healthcare professionals who have little experience with cultural sub-groups may not recognize risks or signs of trauma, and they recommend training in trauma-informed care to better serve diverse patient groups.[130]

The mistreatment literature, however, does address race and ethnicity. One of the seven categories in the Bohren et al. Typology of Mistreatment[125] is stigma and discrimination, and that category included women's reports in the global health literature of feeling discriminated against by healthcare providers because of their race or ethnicity. Women said that this perceived discrimination affected the quality of their care and acted as a disincentive to seeking care.[125] In the United States, the "Giving Voice to Mothers Study" described earlier found that rates of mistreatment were consistently higher for women of color.[127] Additionally, recent qualitative studies with women accessing prenatal care found that many women of color experienced provider interactions and practices as discriminatory,[131,132] and reported unmet information needs and inconsistent support.[132] Another recently published study exploring the experiences of women of color with maternity healthcare providers introduced the concept that maternity healthcare

professionals used "packaging" to provide information to women of color that allowed or hindered their ability to make decisions.[133] Further, it is well documented that discrimination in health care causes poor psychosocial and physical health outcomes. A recent literature review exploring the relationship between perceived racism and discrimination and health among Black women in the United States found consistent evidence for a relationship between discrimination and adverse birth outcomes.[134]

No research was identified exploring effects of race or ethnicity on secondary traumatic stress, compassion fatigue or moral distress among healthcare professionals.

2.6 Summary of Research Gaps

Birth trauma is a serious public health issue in the United States that affects hundreds of thousands of women and families. Recent research into secondary traumatic stress among maternity healthcare professionals points to a potential public health problem that affects healthcare providers as well. The comprehensive literature review completed for this dissertation demonstrates that most of the existing research focuses on the experiences and perspectives of people giving birth. That focus, as important as it is, leaves several critical research gaps that require greater exploration: 1) insight into the perspectives and experiences of maternity healthcare professionals;[103,135,136] 2) insight into the context of birth and the maternity care system, and 3) means for preventing birth-related trauma.[13,88,122]

Maternity healthcare professionals comprise the other half of the patient-provider interaction that is so often described as being at the nexus of patients' descriptions of their birth trauma experiences. Research into mothers' experiences overwhelmingly confirms the importance

of these interactions in relation to their traumatic response. So, it is critical to gain insight into the lived experiences that maternity health care professionals have with patients and with birth trauma.

Exploring the health system context is also critical to a more complete understanding of birth trauma, because maternity healthcare professionals do not practice in a vacuum. Their care practices and belief models are shaped and influenced by the training they have received, the institutions in which they work, the policies and standards set by their institution, and the peers with whom they work. A qualitative exploration into the ways in which the overarching health care system shapes maternity care, specifically at labor and delivery, can offer insight into modifiable factors and possible intervention points.[137] The fact that some providers and delivery settings do not ensure adequate support, even though the positive effects of support during childbirth are so well documented in the literature, offers yet another potentially powerful focus for research—investigating the barriers to adequate birth support. Identifying intervention points throughout the continuum of maternity care, including prenatal care, labor and delivery, and postpartum care, is key for preventing birth-related trauma and improving the postpartum health of mothers and their families while also protecting the health of maternity care providers.

2.7 Dissertation Overview and Study Aims

This qualitative research study explores three study aims related to maternity care providers' perceptions and experiences of patient birth trauma. The research includes the previously described comprehensive literature review as well as formative interviews with community partners both of which were used to develop the semi-structured interview guide. The

interview guide was field-tested and revised. The guide was then used to complete 28 qualitative research interviews that comprise the primary data set analyzed for this dissertation.

2.7.1 Study Aim 1

Aim 1: To describe maternity healthcare professionals' perceptions and experiences of childbirth-related trauma, specifically healthcare professionals' perceptions of emotional childbirth-related trauma that occurs in the absence of objective obstetric trauma.

Approach: The semi-structured in-depth interviews asks about participants' perceptions and experiences of childbirth-related trauma in their own practice, what they have learned from other practitioners, and how their experiences have influenced their practice.

Research questions: What are maternity healthcare professionals' perceptions and experiences of childbirth-related trauma; how do they describe it and the patients who experience it? How have participants' experiences influenced their practice?

2.7.2 Study Aim 2

Aim 2: To describe maternity healthcare professionals' perceptions and experiences of the influence of practice setting, health system policy and culture on their experiences of childbirth-related trauma.

Approach: A second group of questions in the semi-structured interviews broadens the scope of the discussion to include environmental factors that may directly and/or indirectly affect birth procedures and the maternity healthcare professional's practice. These questions provide an opportunity for healthcare professionals to describe what they perceive to be drivers that influence

the patient's birth experience or impact their (the provider's) practice in both positive and negative ways.

Research question: What other drivers (such as birth setting, costs of care models, facility size and location of facilities, workforce and staffing practices, malpractice policies and accepted norms for patient agency) affect healthcare professionals' perceptions and experiences of trauma and how do healthcare professionals describe those factors?

2.7.3 Study Aim 3

Aim 3: To describe differences and similarities in perceptions and experiences of childbirth-related trauma across different maternity healthcare professional groups, including physicians, midwives and nurses to identify convergent themes and divergent themes.

Approach: The research study sampled maternity healthcare professionals from different subgroups of providers to explore cross-cutting themes in their described perceptions and experiences, as well as participants' descriptions of practice setting drivers and their impact.

Research question: How do maternity healthcare professionals' perceptions and experiences of childbirth-related trauma differ by provider type? What commonalities can be seen across groups?

2.8 Theoretical Framework

As described above, experiences of birth trauma can have consequences for both patients and providers, and those experiences take place within the larger health care setting. The research

developed for this dissertation and described in the upcoming sections approaches the public health problem of birth trauma within a broader context that includes individuals, interactions between individuals, and the larger health system setting in which those interactions take place. A qualitative investigation is well-suited to exploring both the perspectives and experiences of individuals as well as the context and system dynamics in which they act.[137]

2.8.1 Social Ecological Model

Framing this research within the social ecological model (SEM) encourages exploration of the contextual factors of the larger maternity care system and how they affect individual experiences and interactions.[138] The SEM establishes a framework for exploring the maternity healthcare delivery setting and its routine practices, as well as the cultural context of birth, including models of patient care, referred to in the literature as health system "drivers," because they have been shown to impact health outcomes.[139] Specifically, they include birth setting, facility size and location, care models, workforce and staffing practices, health facility policies, malpractice policies and accepted norms for patient agency.[139] Additionally, concepts of "maternity care teams" in the birth setting can also affect care.

There is precedent for using the social ecological model to conceptualize post-traumatic response. The "Culturally Inclusive Ecological Model of Sexual Assault Recovery" (CIEMSAR) was developed through work with rape victims,[140,141] partly as a response to the conflicting research results about which risk factors adequately and consistently predicted the development of PTSD after sexual assault, similar to the conflicting research results that have been noted in cases of PTSD following birth. The CIEMSAR model inserts the traumatic event into the ecological

framework, incorporating interactions about the traumatic event within multiple contexts, and using the social ecological model levels as a way to organize those interactions.

A social ecological model incorporating the birth experience is shown in Figure 1. This model situates the individual at the core, with the birth experience as a context for the individual. That experience is then situated within the larger context of interpersonal interactions, the community and health system in which the birth and the interactions take place, and then the larger culture and society in which the woman experiences the birth and medical care. By focusing on maternity healthcare professionals as the participants in this research, the study explores the larger context that surrounds the patient's birth experience.

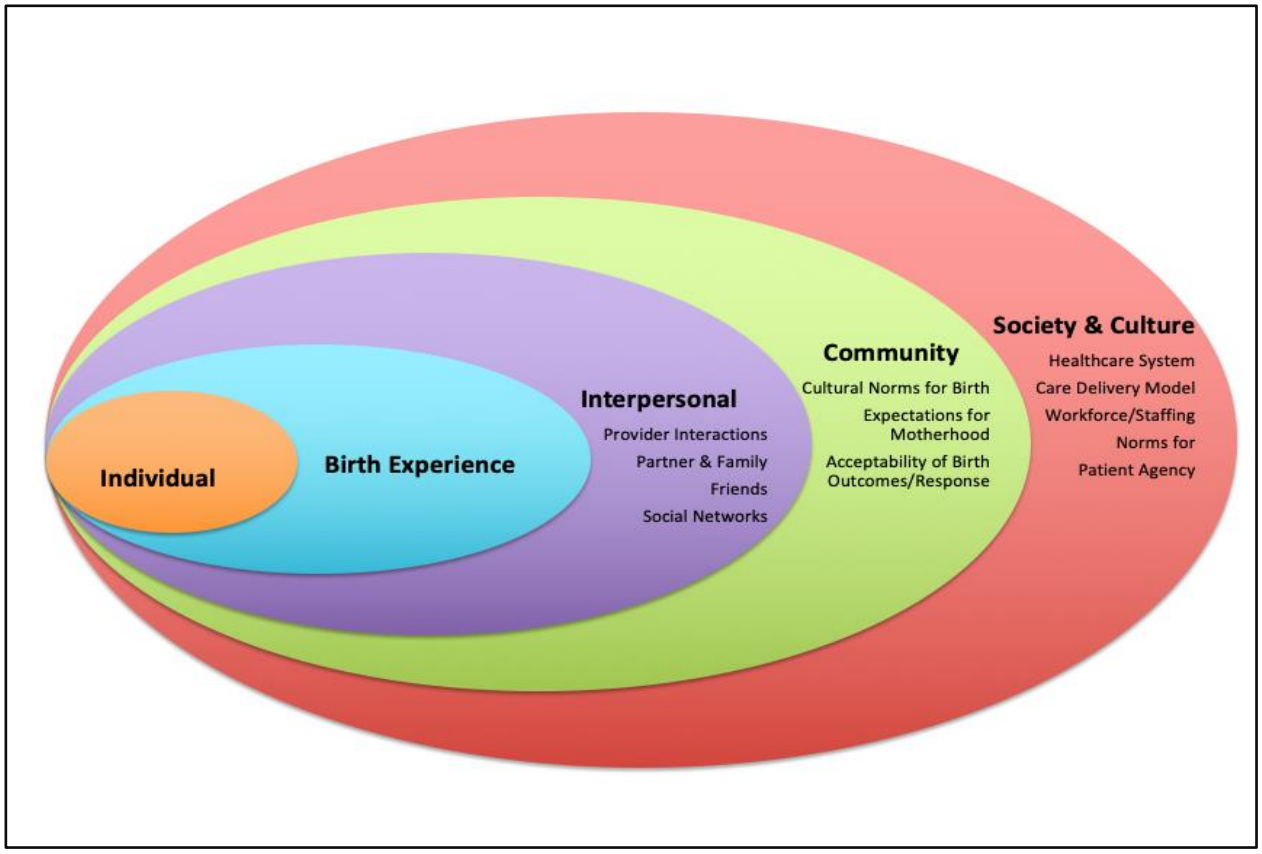

Figure 1 Social Ecological Model for Birth Trauma

2.8.2 Grounded Theory and Framework Development

Grounded theory is an inductive and iterative process used to investigate and understand a complex issue for which explanatory theories or frameworks do not currently exist or when the frameworks in use are in some way inadequate for the research purpose.[142] Previously, researchers have used a grounded theory approach to explore the birth trauma experiences of people giving birth,[49,51,143] and more recently some have used grounded theory approaches to explore traumatic birth experiences of healthcare professionals as well.[144] This dissertation also uses a grounded theory approach. However, because the dissertation has been developed from a small exploratory study, it does not seek to present a full theoretical model as a research outcome, but rather to develop conceptual categories that can move the conversation forward about this critical public health issue. The results of this study can be used to inform broader research and early intervention, including birth trauma prevention.

A grounded theory approach implies an exploration that is "grounded" in the data set itself, which includes the self-described experiences and perceptions of research participants.[145] These data are used to explore the complexities of the participants' situation in order to develop a conceptual framework. This research dissertation uses a constructivist approach, as described by Kathy Charmaz in "Constructing Grounded Theory," meaning that researchers acknowledge their own subjective and involved relationship to the research participants and engage in active, ongoing and authentic reflexivity to examine their own positionality.[145]

To describe my own positionality: I identify as a woman, white, having given birth two times. Neither of my births was traumatic and I did not experience trauma symptoms after giving birth, although I have experienced traumatic loss and symptoms outside the context of maternity care. I also have previous experience working five years as a birth doula and as the director of a

community-based doula program and before that 10 years of experience as a reproductive health writer and editor. For this research I worked closely with five community partners in the initial stages developing and pilot-testing the interview guide, all of whom identify as women, four white and one woman of color. These community partners included an obstetrician/gynecologist, two family physicians, one labor and delivery nurse, and one behavioral health counselor who works with mothers' groups. I also worked with a second coder who is a Master of Public Health Professional specializing in reproductive health, and a woman of color. I was responsible for the data collection and primary analysis for this dissertation.

The constructivist approach also requires that researchers make explicit their assumptions and extant knowledge about the research topic and how they inform and interact with the research process. Several assumptions that inform this research, articulated over the course of the research development through discussion with community partners, include the following:

1) Maternity healthcare professionals have prior experiences that influence the way they provide care and the way they interact with patients or clients during the care provision.

2) The interactions of healthcare professionals and patients are influenced by the individuals involved in the interaction (providers, patients, family members, and others) as well as the context in which they take place.

3) These interactions, in turn, have an impact on the healthcare professionals AND patients, including patient health outcomes, both physical and psychological.

4) Healthcare professionals and patients have prescribed "roles" within the hierarchically structured healthcare system and those roles establish some parameters for their interactions.

5) Healthcare professionals hold "power" in patient-provider interactions, expressed as medical knowledge and authority. Healthcare interactions take place within the context of that power structure.

6) In the market-based U.S. health system, some patients hold "power" as consumers, as commenters about health care on social media, and as potential litigants in malpractice lawsuits. However, not all patients hold equal power. Race, education, language and socio-economic factors affect real and perceived power.

7) Implicit bias exists in many U.S. systems, including the healthcare system, and this bias may factor into the interactions between healthcare professionals and patients in both explicit and implicit ways.

8) Maternity healthcare professionals' conceptualizations of birth and maternity care vary by sub-specialty and these conceptualizations influence their patient interactions.

Throughout the research process, these assumptions were checked with the information gained from the participants' descriptions of their experiences and perceptions.

3.0 Research Methods

3.1 Data Collection

The previously described comprehensive literature review was used in conjunction with formative interviews with five community partners to develop a semi-structured interview guide. The interview guide was field-tested and revised with input from community partners. The guide was then used to complete 28 qualitative research interviews that comprise the primary data set analyzed for this dissertation.

Semi-structured, open-ended interviews were completed with maternity healthcare professionals from November 2018 to June 2019. Several community partners assisted with recruiting participants working at maternity care sites throughout the Greater Pittsburgh Area. The recruiting partners—one hospital administrator, a family physician, a labor and delivery nurse, and a facilitator for new mothers' groups—received a recruiting email script and a study flyer. Recruiting partners sent emails and posted paper flyers to publicize the research at four maternity care sites (three hospitals and one birth center). Eligible study participants included maternity healthcare professionals (nurses, midwives, family physicians and obstetricians) who provided delivery care in the study area during the previous year.

A purposive sample of participants was recruited, and as the study progressed, additional participants were recruited through snowball sampling, with the initial research participants forwarding emails and flyers to other potential participants who met the inclusion criteria. As the study progressed, one physician and two midwives from a separate practice site were recruited because of their potential to add meaningfully to the data.[145] The midwives were included because

of their ability to provide perspective on a separate maternity care site. The physician was included because of her described experience discussing birth trauma with other physicians and trainees. Recruitment efforts at one smaller hospital were unsuccessful due to administrative delays in authorizing the posting of study flyers.

Prior to each interview, participants received a verbal description of the study and had the opportunity to ask questions. Once they gave verbal informed consent, participants completed a brief demographic questionnaire. At the completion of the interview, participants received a $10 Starbucks card in appreciation for their time and participation, although some participants declined the card. Additionally, because research has shown that healthcare providers can experience secondary trauma from traumatic patient experience as well as risk for re-traumatization when discussing trauma, all respondents were offered a brief description of secondary trauma and the contact information of a behavioral health provider specializing in trauma. One respondent accepted the materials and referral name after completing the interview.

Interviews were completed in person at a location of each participant's choosing; two interviews were conducted by telephone at the participants' request. Interviews (n=28) lasted an average of 54 minutes (range 34 to 74 minutes). The semi-structured interview guide (Appendix A) structured all interviews, which began with a broad question asking participants what they think of when they hear the term "birth trauma." The interview continued with questions asking participants to describe their perceptions and experiences of birth trauma, their approach to patient care, patient experiences, birth setting and co-workers. Probes were primarily non-directive, conversational interrogatives to encourage respondents to expand upon their answers and provide examples when possible, such as "Can you tell me more about that?" or "What do you mean by that?"

All interviews were audio-recorded. Following each interview, a short memo was written to capture the interviewer's initial response to the information shared and to practice reflexivity about the research subject. These memos served as an early inductive analysis and helped to inform the iterative process of re-examining data by comparing it with subsequent interviews. In response to early participants' interview responses about unconsented care and racial differences in care, two questions were added to "Section 4: Practice Setting" in the structured interview guide after the completion of eight interviews. Those questions "What about differences of race or ethnicity?" and "What about the term "obstetric violence--have you heard of it? and can you describe how you conceptualize it?" were added to the end of the interview so as not to influence participants' spontaneous discussion of these topics in response to earlier questions.

This research protocol received exempt approval by the University of Pittsburgh Human Research Protection Office (PRO 17020090).

3.2 Data Analysis

Audio-recorded interviews were transcribed verbatim, and to ensure confidentiality, all identifiable information, including participant names, names mentioned during the interview, and practice site names, was redacted from the transcripts. Each transcript was reviewed for accuracy by comparing it with the recording and correcting the transcript as needed. Transcripts include bold-faced type to indicate when participants emphasized particular words or phrases. When participants spoke extremely emphatically or raised their voices, the words appear in bold-faced, capitalized type. The transcripts also note some instances when participants whispered or markedly changed their tone of voice. Ellipses are used in the participant responses when words

have been omitted to condense descriptions. Interview memos, written during and immediately after interviews, make note of some instances when participants use hand gestures or attempt to refrain from crying. The interview transcripts, participant demographic data, and transcript coding were all managed in NVivo 12 Mac qualitative software. Memos of the initial response to each interview as well as the iterative re-reading and re-processing of the participant transcripts were also managed in NVivo12 Mac and in a Word document research journal. Initial data analysis began with first data collection, as a way to identify emerging issues that could be addressed during subsequent qualitative interviews.

The analysis of the transcribed interviews with maternity healthcare professionals was an inductive and iterative process that included a second coder in the initial stages. The transcripts were analyzed following a thematic analysis process described by Braun and Clarke[146] that involves six steps:

1) Data immersion through reading and re-reading the verbatim transcripts to become familiar with the data set and developing memos with initial responses to the data;
2) Generating initial codes from the data, using line-by-line inductive coding, and refining those codes into a codebook, which was then revised through two iterations;
3) Finding themes within the coded data chunks and collating those codes into broader categories or themes that related to the specific research questions and then gathering all the data relevant to each potential theme;
4) Reviewing the themes to verify that the coded data extracts fit the theme and that the collection of themes fit the entire data set;
5) Further defining the themes and naming them;

6) Writing a description of the themes and choosing compelling quotations from participants to illustrate each theme or category and relating them back to the research question.[146]

Additional Content Analysis. The qualitative data collected for this study were further analyzed following the structure of a recent study completed by birth trauma researcher Cheryl Beck.[103] She used Krippendorff's "content analysis of categoric distinction"[147] to analyze mothers' narratives of birth trauma, using the seven categories of the Typology of Mistreatment and Abuse of Women During Childbirth developed by Bohren et al. in 2015.[125] This dissertation undertook a similar deductive approach to complete a content analysis of participants' descriptions of patient birth trauma.

The unit of analysis was defined as study participants' descriptions of birth trauma, which were considered for inclusion in this analysis only when they included participants' first-hand description of the event, rather than accounts they heard from patients or other providers. Categoric distinction was used to both define the units by "their membership in a class or category—by their having something in common."[147(p105)] and map them onto the categories of the typology. The typology is shown in Table 1.

4.0 Results

Twenty-eight maternity healthcare professionals in the Greater Pittsburgh Area completed semi-structured interviews for this research, including labor and delivery room nurses (n=14), certified nurse midwives (n=8), and physicians (n=6). Participants had an average age of 38 (median 36, range 24 to 64). The majority of participants were White (86%), and most were married (61%). The average time working in their current maternity care capacity and setting was 6.9 years (median 4 years, range 1 to 28 years). The average number of years practicing in maternity care in any setting was 8.5 years (median 6.25 years, range 1 to 30 years). See **Table 2** for participant demographics.

4.1 Study Aim 1: Birth Trauma Experiences

All participants reported experiences with patient birth trauma, and nurses in particular described specific patient experiences that stayed with them over time, potentially causing symptoms associated with secondary trauma, compassion fatigue and moral distress. Results indicate that maternity care professionals experience patient obstetric emergencies and related birth trauma on a regular basis and that some providers feel unprepared to respond to patients' emotional and psychological needs as well as their own, particularly early in their careers.

Perceptions of birth trauma—what defines birth trauma and which patients experience birth trauma and why—varied widely across provider groups as well as within some provider groups. This variation was so broad that those results are presented separately in **Section 4.3 Study Aim**

3: Differences Across Provider Groups. Other similarities and differences in participant responses that address study aim three, including convergent themes and divergent themes, will be presented within **Section 4.1 Birth Trauma Experiences** and **Section 4.2 System Drivers Related to Birth Trauma**.

Participant descriptions of their experiences of birth trauma were distilled into descriptive categories. Results included both convergent and divergent themes, which are described in the sections below. Study participants were not assessed for secondary trauma, burnout, compassion fatigue or moral distress because those assessments were outside the scope of this research.

Although most participants described developing their own coping strategies over time, many indicated that coping involved changing care practices, avoiding certain practices or in some cases, avoiding certain patients or minimizing those patients' experiences. Nurses, in particular, described experiences with patient birth trauma as a regular part of their job, and they connected their repeated experiences of patient birth trauma to burnout and high turnover of nurses in their department.

Table 2 Demographic Characteristics of Participants (n=28)

Variable	N	%
Profession		
Labor and Delivery Nurse	14	50.0
Midwife	8	28.5
Physician	6	21.4
Gender		
Female	27	96.4
Male	1	3.5
Race/Ethnicity		
White/European	24	85.7
Black/African American	1	3.6
Asian/Pacific Islander	1	3.6
Multi-Race	1	3.6
Hispanic/Latinx	1	3.6
Married/Partnered	17	60.7
Single	11	39.3
Previously Given Birth		
Overall	17/27*	62.9%
Nurses	6/14	42.8%
Midwives	7/8	87.5
Physician	4/5*	80.0

**1 male participant excluded from calculations about giving birth*

4.1.1 Nurses: *Not every day—but every week, every month*

All nurse participants (n=14) worked at a single large maternity hospital, and three also worked part-time in other maternity care settings, including one free-standing birth center, and two other hospitals in the Greater Pittsburgh Area. All nurse participants were registered nurses (RNs), and they had an average age of 32 (median 31.5, range 24 to 41 years). They had been practicing at their current place of employment in the labor and delivery unit for an average of 4.9 years (median 3.5 years, range 1 to 13 years), with an average of 6.1 years of experience in any maternity care nursing (median 5 years, range 1 to 16 years). All nurse participants identified as female and six (43%) had given birth at least once. Two participants were pregnant at the time of their interviews; both previously had given birth at least once. Overall, nurses were the youngest sub-group of maternity care providers and the least likely to have given birth. Their average length of time providing maternity care also was the shortest of all provider sub-groups.

Nurses described experiences with birth trauma as a ubiquitous part of their job. *We'll see so many, sometimes **terrible,** things, in just a single shift,* one nurse said (Nurse 21). She pointed out that maternity care nursing is not usually considered to be a particularly emotionally draining medical specialty, unlike oncology or intensive care unit nursing, in which nursing burnout has been explored in the research:

> *A lot of people just think – "Well, labor and delivery, how nice." But we're a high-risk hospital so we see everything in the tri-state area – including a lot of drug use in moms because we have our Neonatal Nursery to help the babies wean off the drugs* (Nurse 21).

Nurses described regularly caring for patients whose births resulted in emergency delivery; they said fetal loss and stillbirth are the most common patient birth traumas they experience. "*Any*

kind of loss, usually it's very traumatizing … I'm on a Perinatal Loss Committee. So, I get a lot of the babies that don't make it," said one nurse (Nurse 21). Another said:

> *We see … losses of babies all the time. We have patients come in who are full term, who inexplicably don't feel their baby move anymore, and they're diagnosed with a fetal death. And, we do those type of deliveries – not every day—but every week, every month* (Nurse 05).

Emergency cesarean sections and shoulder dystocia were two other traumatic delivery experiences that nurses described as experiencing regularly. In a shoulder dystocia, the infant's shoulder becomes stuck on the mother's pubic bone and birth cannot progress without maneuvers to free the shoulder (maneuvers that can sometimes collapse and fracture the infant's clavicle). When patients are unmedicated—not using pharmacological pain relief, often referred to as "going natural"–the physical maneuvers required to deliver the infant can be extremely painful:

> *A lot of shoulder dystocias with natural patients — it gets pretty graphic and you can have women screaming and there's nothing you can do but get that baby out. It's really stressful to watch, actually. I hate that* (Nurse 09).

4.1.2 Midwives: *Birth can be a real crapshoot*

Eight midwives completed semi-structured interviews. All were certified nurse midwives (CNMs), which in Pennsylvania is the only accepted certification for midwife training for clinical birth care at hospitals and free-standing birth centers. It requires licensing from both the Pennsylvania State Board of Nursing and the State Board of Medicine.[148] The midwife participants worked at three separate practices, including one free-standing birth center in Pittsburgh and two hospital-affiliated practices (at two separate hospitals in the Greater Pittsburgh Area). Midwife participants had an average age of 41 (median 39, range of 31 to 60) and had been practicing at their current place of maternity care employment for an average of 7.2 years (median 7 years, range 3 to 13.5 years). They had been practicing as CNMs in any setting for an average of 8.0

years (median 7.2 years, range 3 to 14 years). All midwife participants identified as female, and 87.5% percent had given birth at least once.

Some midwife participants had worked previously as maternity care nurses and commented specifically about the difference in the experiences of birth trauma as a nurse and as a midwife. One said:

> *I think it is … two different perspectives because … when I worked as a registered nurse for all those years – you're sort of dealing with the* ***immediate*** *trauma, right? … it's interesting … how that impacts me [now] because I think that … such a tenet of midwifery care is informed consent, right? And, even in the midst of a crisis, how do you obtain informed consent and make sure people feel like they're knowledgeable about what's happening, when so much happening is happening* ***to*** *them … So, I think for me … as a midwife, it's obviously dealing with after-effects … when you've had bad outcomes. You form these relationships with people, and you know, [the loss] is never going to go away* (Midwife 10).

Midwives commented on the unpredictable nature of birth: *"Birth can be a real crapshoot"* (Midwife 29). Midwives did not usually describe specific patient birth traumas from poor outcomes, although nearly all said that losses and emergencies were always potentially traumatizing to patients and to themselves:

> *I think probably my toughest ones have been the stillbirth babies … I've been doing this now eleven years and I think I really struggled with it as a young nurse. I just was not comfortable. I couldn't figure out how to hold space for those families without making it about me* (Midwife 15).

4.1.3 Physicians: *Our whole culture is we're in control*

Six physicians participated in semi-structured interviews: three family physicians and three obstetrician-gynecologists. Physician participants reported providing maternity care at a total of three Pittsburgh area hospitals, with some attending deliveries at more than one hospital. Physicians had an average age of 45 (median 44, range 31 to 64 years) and had been practicing at their current place of employment for an average of 10.3 years (median 8.5 years, range 1 to 28

years) and practicing as maternity care physicians for an average of 15.8 years (median 14.5 years, range 5 to 30 years). Five physicians identified as female and one as male. Four of the five female physicians (80%) had given birth.

Like midwives, physicians were less likely to describe a particular birth trauma experience that affected them. One obstetrician said:

> *Most deliveries go quote unquote, "well," where we're happy with the result. But when the result is not what we would like it to be—we may not have much control over it—but whether it's a very sick mother, a very sick baby, usually a big surprise to us, then that would be traumatic for a delivering provider* (Obstetrician 17).

A family physician also commented on control.

> *Our whole culture is, you know, we're in control, and … we have the answers. And when we don't – it's just terrifying because things can go bad. And, when things go bad – it's terrible for you, for the person, for your liability, for your reputation. I mean, it's like everything is on the line all of a sudden* (Family Physician 22).

4.1.4 Secondary Trauma: *It's hard NOT to be traumatized from this job*

Although few participants used the phrase "secondary trauma," many described themselves as "traumatized" by their clinical experiences. Some described feeling unprepared to respond to their own emotional response to obstetric emergencies, particularly early in their careers. Nurses, in particular, described experiences that left them with disruptive symptoms associated with trauma, such as reliving the scene or experiencing on-going nightmares. One said:

> *I think every labor and delivery nurse, especially the more veteran ones, have indelibly seared into their memory, situations … that will always stay with them* (Nurse 06).

The following examples, although lengthy, provide insight into participant responses to birth trauma experiences. One nurse said:

> *I had a patient who was twenty-four weeks, right at the point of viability, and she was in preterm birth, and wanted all extenuating measures to save the baby … that night was … like a night of trickery … constantly trying to keep a twenty-four-weeker on the monitors … trying to stop the laboring …so, it was like a weird balancing act. So, you're constantly reacting – the minute she comes off the monitor you're running into the room and adjusting it and if you weren't doing it fast enough, the doctors were in there … And the doctors came in with a doppler, thought that they had the heart tones. They didn't, so we had to rush to the O.R. We get to the O.R., we find the heart tones, everything's fine.*
>
> *This poor woman … not only has she been through us … all freaking out, rushing her to the O.R., anesthesia has dosed her and now we have to all sit in a bright-lit O.R. for about forty-five minutes until her anesthesia comes down … As a nurse it was traumatizing to* ***me*** *to go through it with this woman. I can't even imagine what it was like for the mother… No matter what, this was going to be incredibly traumatizing for her. She did end up delivering early and the baby didn't make it* (Nurse 05).

This nurse described having intrusive memories of the experience when subsequently she cared for patients delivering in the operating room:

> *It's hard because I can still feel the room. I can still smell the smells from the room. I can still see what the room looked like when it was set up very clearly … and I can still put myself right back in that room* (Nurse 05).

Another nurse described feeling unprepared for the intense emotions of a young patient giving birth:

> *One in particular I can think of is I had a sixteen-year-old girl, I think. She was really small, and she had this really big baby, who didn't look great on the monitor. The baby was not someone that we were immediately thinking, "Okay, let's do a C section" but that we wanted her to deliver pretty quickly and she was pushing well, and she had, I think her mother and the father of the baby, who was also sixteen or seventeen, there. And, she wound up getting a forceps delivery, and it was the first forceps delivery I had ever seen while I was there. And, it was so tough on her. She was pushing with everything in her, and everybody was screaming at her, and she was so young, and I just couldn't help but imagine myself in that situation as a sixteen-year-old, who was already undergoing all of this stress of being exposed to my family, and a doctor, and a nurse who I didn't know. And, also worrying that I wasn't doing a good enough job of getting my baby out, and I could be hurting my baby, and also feeling the physical pain of the forceps, and having everybody yell at you at the same time with the lights on.*

> *I mean it was just—she was crying the entire time. Tears were streaming down her face, and I was crying by the end, but I had so many things to do that I didn't have time to cry about it. And, it was really rough honestly, and I still think about it all the time* (Nurse 04).

One midwife participated in an interview for this study the morning after working overnight with a patient who had gone into labor prematurely and delivered a too-early, non-viable preemie:

> *It is very real – the trauma, physicians, providers, midwives can experience too … sometimes the hardest thing is … when a bad outcome happens, they're also looking to their providers … to save their baby. So, I think in certain situations … when a loss is going to be inevitable – for me, it can feel very painful just to have a woman looking to you like – "Why can't you do anything to fix this?" You know? "You are the provider. I'm coming to you to have this healthy baby."*
> *And you do encounter those situations where … there isn't anything that can be done. That can be very difficult … to see how painful it is for women, that you have to tell them – "There's nothing I can do here." It's so hard. So, that – for me, that's particularly traumatic ... It's a horrible thing to have to hold a dead baby in your hands and give that to a family* (Midwife 28).

Another midwife described feeling powerless in the face of loss:

> *If you're doing everything you can and … it's not working. And, that feeling of powerlessness and not being able to help, you know?* (Midwife 08).

For one younger obstetrician, this birth affected her deeply during her second year of residency:

> *The most traumatic thing I had in residency is we had this girl who was fourteen, who had a fetal demise … And, that's not really like a trauma in the normal sense I guess– but it just was like one of those things where I was like, "This is really, really horrible." Yeah. I think too just because her social situation was so poor. Like her parents would not come. And, then her boyfriend was in juvenile detention. And so, she was alone, actually, most of the day. So, we were kind of in there being her support people too. And, she wasn't super mature … like she couldn't understand why we couldn't keep the baby in longer, you know – because when she got there the baby was still in the sac but already in the vagina … And so, it was like she couldn't really get why, and it was like "Can't you just push it back in?" … And the baby was breech but it was still alive when it delivered…And so, you could, I literally felt the baby go limp and the heart stop beating like while I was delivering it …And, that's something that I remember all the time and I had nightmares about for weeks* (Obstetrician 27).

A family physician described a birth that occurred during her first year as a faculty attending physician that she said involved several levels of trauma:

> *There's one particular trauma that I can recollect … it was my first year of teaching as a faculty at [hospital] … The wife and the husband … had a baby who died in utero [in a previous pregnancy]. Psychologically they were already traumatized from that experience and coming into this delivery. She [the patient] was a little on the obese side … and it became a shoulder dystocia. But the actual trauma that came personally to me and everyone else who was in the room – first of all, the woman was screaming. And, she kept screaming, thinking that this baby was going die because of the trauma that she had previously...*
>
> *Meanwhile, the husband who is on the right of me as I am facing the mom – trying to deliver—was screaming obscenities and foul language as in like …" You're going to kill my baby! My baby's not coming out. I will—like – I will kill you. I will kill them" … He wasn't yelling at me particularly, but he was yelling at everybody in the room. I was worried, I was multitasking in my head … I just want this baby out.*
>
> *…So, we got Security in there and he just kept yelling. He's like – "I will kill you myself if you kill my son!" …I'm traumatized because I'm like – I'm trying to focus on the mom. I want to know what her mental, emotional, and like physical state was, of her trauma during this time* (Family Physician 26).

4.1.5 Impact on Clinical Care: *Well, I'm not going do that*

Although most participants described developing their own coping strategies over time, many described how traumatic experiences with birth could change the way they provide maternity care. Some described changing care practices, avoiding certain practices or in some cases, avoiding certain patients or minimizing those patients' experiences. Participants diverged across provider groups in their descriptions of how it might affect them, with physicians describing more autonomy to avoid certain practices, such as forceps deliveries, which one physician described giving up after a negative experience. Nurses, on the other hand, described less autonomy and more anxiety. Midwives described being aware of the potential impact of negative outcomes and

birth trauma on their own practice while also feeling somewhat powerless when they worked with physicians who had altered their practice because of previous negative experiences.

One nurse said:

> *Well, it informs the next person that I take care of, right? …At [this hospital] we have a … culture of high anxiety … all the nurses go to the nurses' station and we're all staring at all the fetal tracings, right? And, we're like, "That tracing looks terrible.* ***That*** *tracing looks bad,* ***that*** *tracing looks bad. All the tracings look bad right now." And, we're all just sitting there, biting our nails being like, "Okay, well, who's going to the OR?"* (Nurse 14).

A midwife said this about her response to a traumatic birth:

> *Even just in terms of fear of it happening again …I may be going to over-recommend things to avoid that risk … maybe over-intervening [because] of the risk of a certain situation happening again* (Midwife 28).

The obstetrician who decided to forego forceps deliveries described the experience this way:

> *I had an interesting experience where, as a first-year resident …I attended a delivery, which, I didn't deliver the baby, but I was kind of next to the attending that delivered the baby. And, the delivery was with forceps, and the baby did poorly afterwards, and then there was even like, a lawsuit related to it … So, all that stuff was fairly traumatic, enough that over time, I realized that – while I was trained to do forceps – that I wasn't going do a lot of them in my clinical practice, and that I didn't really see a reason why I would expose myself—that I had other options. So, sort of like, "Well, I'm not going do that." But, part of why I don't do it is because I'd had a bad outcome that …I didn't have any responsibility over. I just witnessed it, but enough to kind of stick in your head that you don't want to do it anymore* (Obstetrician 17).

One midwife described seeing the impact on her own practice as well as the way that negative experiences have influenced her physician colleagues' approach to collaborating with midwives:

> *It's hard to forget when you go through something scary … and that affects the way that you deal with future situations, and … if we have a woman who's in the same situation, and that brings up a past experience for a doctor, then that influences how they want us to act in the situation* (Midwife 07).

She continued:

> *We have to manage the doctor's prior traumatic experience … I'll never forget this one doctor who had a mother die in labor, and she'd had a fever and got septic. And then, for the rest of his career every time there was somebody with a fever, he would, in my opinion, overreact, and I had to balance knowing that he had this history, with the fact that I wanted to do what was evidenced-based for the woman that was in labor at the time…*
>
> *I can see that … whatever doctor I call in for a vacuum for low heart tones – you can see how they react and their ability to separate from whatever births have happened in their past to what's happening in this moment … one of them we called them 'the hurricane.' Cause she just came in like … that was just her thing if heart tones were low, she just turned into this hurricane that was stressful for everyone involved in the room when it didn't need to be…* (Midwife 07).

4.1.6 Birth Trauma and Burnout: *I have this black cloud*

Participants varied in how they viewed the role birth trauma can play in provider burnout. Nurses, in particular, attributed burnout to repeated experiences of patient birth trauma, particularly cases of infant loss. Several connected repeated experiences of patient birth trauma to high turnover of nurses in their department. One nurse said, *"I've known a couple of people who have had burnout from these kinds of deliveries"* (Nurse 04). Midwives also said the trauma from poor birth outcomes can be a primary reason some midwives leave practice. But overall, midwives and physicians tended to see birth trauma as less closely related to burnout than the nurses. Midwives often described making an explicit commitment to the emotional nature of birth work: *A lot of midwives know what they're getting into* (Midwife 29). Physicians and midwives both described burnout as more closely connected with system factors, including not having the resources or enough time for patients, which will be further described in the next section.

Connecting repeated experiences of birth trauma to burnout, one nurse said:

> *It is something that contributes to why nurses leave this profession because it is hard to cope with these kinds of things. And you have to learn quickly…I feel like*

> *I have had to put together my own support system to be able to cope and deal with this kind of thing* (Nurse 05).

Other nurses said burnout resulted from a combination of repeated traumatic births and other system factors including workload, patient-to-nurse ratios, patient acuity, lack of training in trauma and lack of support following trauma. Additional descriptions of these factors are presented in section 4.2, "Study Aim 2: System Drivers Related to Birth Trauma."

A charge nurse who works as a team supervisor and administrator said the bedside nursing position is particularly vulnerable to burnout.

> *I think that if I was a bedside nurse and every day I had to push with a first-time mom, or I had to go to the OR every day, or had to deal with someone with a fetal loss every day, that would ultimately lead to burnout … Because I can bounce around from different position to different position … I don't get that burnout …"* (Nurse 19).

Another nurse said that poor outcomes seemed to come in waves, which can contribute to burnout:

> *It's just the luck of the draw who your patient is, and it does tend to be, unfortunately, a pattern. You come in and you just have what we call a black cloud, like you just have this string of bad or whatever, and so yes, you can get burned out and you do hear people say "oh my god I can't even come in another day. I have this black cloud; I don't know what's gonna happen." So yeah, that does take a toll* (Nurse 18).

Although less likely to draw a direct connection to poor outcomes and burnout, several midwives said that if the midwife herself feels traumatized by the patient poor birth outcome, it can contribute to burnout: *People who have been traumatized or felt trauma – yes. That can absolutely lead to burnout* (Midwife 08). Another said:

> *The average life of a full-scope midwife is seven years. That's as long as the nurse midwife lasts on average. And, I've definitely seen that happen in real life. You know, it's hard … there's not a real good mechanism for dealing with the stress of the profession, not a good mechanism for dealing with trauma. And then, the lifestyle is so hard, you know, twenty-four-hour shifts is really hard and – especially*

*midwives, we put a lot of emotion into what happens, and so, it really can be very draining (*Midwife 07).

Another midwife described working with the uncertainty of birth like this:

You sort of have to dig out your own emotional basement … we all individually bring things to the table – histories, our own personal traumas, our own emotional hang-ups and hiccups— and I think for me it was really working through some of those things to sort of gain my confidence and understanding in my role as a midwife (Midwife 10).

Like the nurse who described a dark cloud of poor outcomes, one hospital-based midwife described burnout as a possible result from particular birth practices, like induction:

It seems like things come in waves and you're like- you're doing induction for preeclampsia after induction for preeclampsia. And, you're like, "This isn't what I want to be doing.

Especially when you're in the middle of what feels like a cluster of those kinds of things, and you're not feeling like you're able to talk about them, and you're not able to see that there are normal things that happen too…it gets really hard. And, I think without the right- I don't even know what the right tools are, but without maybe support or the space to process it (Midwife 13).

Another said this about birth trauma:

It makes you question what you're doing. And, I think especially when people, what we do out of hospital because we are providing low risk care for appropriate populations who deserve this kind of care, but what we know about birth is just, you don't know. You don't know until you know. That uncertainty I think can sometimes be a little draining … I think could contribute to burnout because you work hard to provide a certain kind of experience and a high level of care all the time. There's no ability to turn it off (Midwife 10).

Overall, midwives and physicians were less likely to associate birth trauma with burnout, but they acknowledged the emotional toll maternity care takes on providers, both professionally and personally. An obstetrician said:

I think of burnout almost like losing sense of purpose … I'm sure having a bad outcome would make it so that you feel like you have less purpose in what you do because nobody has a purpose to go out and cause harm (Obstetrician 17).

One family physician, like some of the nurses, focused on health system factors, rather than birth trauma, as contributors to burnout:

> *My idea of burnout has always been getting overwhelmed by the system, being asked to see so many patients, taking so much call, being chronically sleep deprived, being worried about making mistakes when you're chronically sleep deprived. So … that's how I kind of think about what leads to burnout—dissatisfaction with the system* (Family Physician 02).

Physicians said birth trauma could be more of a factor in burnout during residency training, and one family physician said birth trauma is a key reason that many family medicine residents decide not to include obstetric care in their practice once they complete training:

> *It is different than training obstetric residents, when they're* ***in*** *there to go into obstetrics. Although, a lot of them just drop OB and just do GYNE in their careers … in Family Med – most people don't choose OB… a lot of family medicine residents find OB terrifying … because things can go wrong … And I wish I did know how to help people not be afraid of it, like to learn how to just trust birth as a process, and trust the woman that she knows her body. None of that really happens and it's very hard to teach in medicine* (Family Physician 22).

Several midwives described acceptance of the uncertainty of birth as a way to maintain a healthy outlook:

> *I always tell my students … "You can't have all that joy in participating in all that joy without expecting to have some sadness that goes with that" … it's as much a part of the job as catching those healthy screaming babies* (Midwife 12).

One obstetrician echoed this idea in noting that poor outcomes tend to be a small fraction of her experiences:

> *I think if you had a lot of that all the time that could burn you out pretty quick … the good thing with OB is that you do have typically more of the good stuff than you have of the bad things, … Like that same day* [that you experience a birth loss] *you get to deliver three or four totally healthy, happy babies* (Obstetrician 27).

4.1.7 Compassion Fatigue: *You know what? I have five other patients*

Two nurses used the term "compassion fatigue" when describing their experiences with birth trauma, while several other nurse participants described experiences of potential compassion fatigue without using that terminology. Several described feeling resentful towards patients and judgmental of their needs. None of the midwives or physicians specifically mentioned compassion fatigue or described situations in which they felt their care was compromised by experiences with previous birth trauma.

One nurse with trauma-informed care training said the combination of high patient volume, high patient-to-nurse ratios and high patient acuity that results in regular exposure to poor patient outcomes all can take a toll on nurses' individual health as well as their ability to provide quality care over time:

> *People have major compassion fatigue, I think. I feel it. I think you just start to see—during your first year, you're like "I just wanna be really present for all of my patients and I'm gonna* ***be*** *here." And, "oh my gosh, it's* ***terrible*** *that you're laboring in a stretcher [in triage when L&D rooms are not available]. I feel so awful that you … you wanted an epidural half hour ago. I'm so sorry that it's taking so long." And, you just feel really awful for them … And five years later you're like, "You know* ***what****? I have five other patients"* (Nurse 03).

Another nurse described how experiencing regular obstetric emergencies changed her response to patients.

> *I definitely think it can impact a provider's response, and I think it can impact how you react to your next patient because somebody that is going through something that you don't feel is as traumatic, or that shouldn't be traumatic – you may react to the patient by saying – you know, by thinking to yourself – "Why is she complaining like this? She's not going through* ***anything*** *like what, you know, what this* ***other*** *patient went through"* (Nurse 05).

Both these nurses described doing unintentional comparisons about which patient needed their care more:

> *I think it's unrealistic demands... I feel like at seven p.m. [at the start of a 12-hour shift] I come in with the best of intentions. And, then you get your assignment and you're like, "Oh, my God." Halfway through the getting the assignment, you're like, "Oh, geez. Okay. I guess I'll just hustle." And, then like two hours later, you're like, "just fuck it." I don't know what to do. It's just* ***so*** *much, and you just feel awful for patients because you're like—it's manageable—I know* ***how*** *to do it, but I don't know how to do it and be super present and compassionate, because I just don't think it's possible.*
>
> *You're bouncing like a ping pong ball between rooms. And it makes it very easy for like, say, I'm with somebody and she's preeclamptic and has no support person, and is preterm. I'm* ***so*** *worried about her. She's high risk and she doesn't have a lot of support. And, I go into the next room and somebody has an epidural, things aren't complicated, she's on Pitocin and has her epidural. But she just wants me to turn her, and bring her soda, and get her hot packs and do this stuff. I'm like, "****arggh****!" [impatiently clenches fists] And, she doesn't deserve that. That's not about her. But, I'm like, "You know* ***what****?" It's like I have to do quick math in my head and be like, "****She*** *deserves my time more [the complicated patient], and I'm slighting this other person." You know? "she's fine. She's got all these support people with her. Why is she complaining?" Oh, that just feels awful* (Nurse 03).

One nurse said the regular exposure to patient experiences of birth trauma can "trickle down" to affect nurses and their capacity to care:

> *I feel like there needs to be a culture change … to recognize that it's not just the mothers that are going through those traumas. But the providers are also. And, if we're not supporting our providers … they're going to be compassion fatigued. They're not going to keep their compassion up to be able to provide compassionate care to the next woman* (Nurse 05).

4.1.8 Moral Distress: *You end up…feeling like you're participating in it*

Most of the midwives described situations where another provider's treatment of their patient left them feeling compromised in their care for or relationship to the patient. Two family physicians described situations where they disagreed with an obstetrician's handling of their patient's care and believed it contributed to patient trauma, as well as their own secondary trauma.

> *So, watching some of my physician colleagues who I respect and who do a really great job – cut women's bodies without their consent – I have a hard time with that. And how do I reconcile that with the great care that I think they give the other*

> *ninety-nine percent of the time? I just don't think that anything should be done to somebody's body that they don't know about that's happening. And, I think those are the kind of things that lead to trauma for women* (Midwife 10).

One midwife described a situation that was traumatic for the patient as well as for the midwife and a nurse:

> *Physician came into the room … she verbalizes she didn't realize that the patient didn't have an epidural. But, decided to do a vacuum, and just cut an episiotomy without telling the patient what was happening, and not "realizing" that the patient was unmedicated. And, **that** was **pretty** traumatic for that patient. [voice is almost a whisper] And, a nurse I worked with **still** talks about that experience and how traumatic that was for **her** to see that happen to a woman. And then, certainly as a midwife, like a patient is trusting **me** when I'm calling in a physician, that they're going to--It's needed-- and they're going to take good care of them, and then when something like that happens you end up just feeling like you're participating in it* (Midwife 28).

A family physician described a protracted discussion about her teen patient with an obstetrician who had decided to perform a c-section:

> *I'm like – "Why can't we just watch her? If she has another decel, then we'll take her back [to surgery]. But, can't we give her a chance?" Nope. Whip her back. Do a C-section right away. She's traumatized. The mother's traumatized. Everybody traumatized. It's a big mess. And, I just wanted them to stop for a little bit. And, I could not get him to do that … 'Cause I feel like now – here's me being part of a system that's traumatizing that person sitting in front of me* (Family Physician 22).

A nurse described feeling that she had been unable to provide adequate care for a patient who experienced birth trauma:

> *You go to therapy, and talk to your therapist about it because you feel really guilty that you didn't feel like you gave them [the patient] the support you should have … and that's what I did. I had to see a therapist about that one because I didn't feel like I gave the support that I should have been giving to that family* (Nurse 05).

Several nurses who described feeling conflicted in situations involving unconsented examinations or procedures described their efforts at trying to give patients the opportunity to voice their wishes when other providers began performing invasive exams without asking permission.

> *Is there any way that I can intervene with the provider to say [to the patient], "Hey, is it okay if we check you?" … It is really like kind of peeking over the provider's shoulder … since the provider was there doing … the hands-on examination, which was kind of uncomfortable at first, but as you got to know the providers better, and … you felt more confident … in intervening in a polite way, and verifying consent, for someone else doing something … So, sort of standing by the head of the bed and saying, "Are you okay with this? Is there any way we can make it more comfortable for you? We won't look." That kind of thing* (Nurse 04).

Another nurse, who had worked at the hospital five years, said that her longevity made her one of the most senior bedside nurses, and she described modeling consent discussions for residents:

> *It's nice being where I'm at in my experience and being in triage a lot, 'cause I **do** have a lot of influence over the first- and second-year residents. And, I find myself scripting, almost training them to be the way that my preceptors trained me … So, you know. I pull up the chair for them, and I'll have them sit down and I'll say to the patient, "Did you wanna talk about whether or **not** you want to have your water broken? Do you wanna talk about whether or **not** you wanna have any more [cervical] exams?" And then, I kind of back off and see what the doctor does with that* (Nurse 03).

One emphasized that patient advocacy is not risk-free for nurses:

> *When we say something often times the provider will yell at us in the front of the patient. Now, it's almost like, you know, the patient will lose trust in the nurse cause the doctor is yelling at us. But really we're just protecting the patient* (Nurse 21).

Other participant descriptions about lack of consent are presented in **Section 4.3 Additional Analysis: Mapping onto the Typology of Mistreatment.**

4.2 Study Aim 2: System Drivers Related to Birth Trauma

When asked to identify health system factors that could affect their patients' potential for experiencing birth trauma, even in the absence of a medical emergency, participants described a range of contextual factors they experience regularly in their practice sites. In this initial qualitative analysis, their descriptions were distilled into eight categories that were named and

paired with a participant quote that is particularly illustrative of that theme. Those categories are displayed in Table 3. Participant descriptions of these system drivers are presented in the following sections.

Table 3 System Drivers Related to Birth Trauma

Training for the Physical:	*These aren't things that are taught*
Lack of Structure for Self-Care:	*A magnet that said call this number*
Inadequate Nursing Staffing:	*Running around like a chicken with your head cut off*
No Time at Prenatal Visits:	*I only have fifteen minutes*
Losing Track of Patient-Centered Care:	*Talk people into…standard care that you get in a hospital*
Lack of Continuity:	*There's a lot of turnover of care*
Poor Communication:	*A voice and a choice*
Culture of Chaos:	*People are talking…but no one is addressing you*

4.2.1 Training for the Physical: *These aren't things that are taught*

Participants described a lack of training in the emotional and psychological aspects of birth and the potential trauma related to birth both for patients and providers. This is a convergent theme across all provider types, although midwives were more likely to describe approaching birth as a psychosocial event as well as a physical event for people giving birth. Other participants noted that they are physical health care providers and said that they had completed drills for responding to obstetric emergencies and physical trauma but had very little training for helping patients cope with their emotional responses to trauma or for coping with their own response as maternity care providers. One obstetrician described her only training in the emotional aspects of patient birth trauma as *"dealing with patients who felt like they had birth trauma from prior births"*

(*Obstetrician 24*). A family physician described receiving early training only about birth trauma related to stillbirths:

> *... what signage will be on the door ... how to wrap the baby ... how to ... prepare the family for the steps that are coming. Finding out if they want to hold the baby ... But I had no training in dealing with postpartum-recovery-birth trauma"* (Family Physician 02).

A family physician who trains residents said that in her program trainees learn on the job to respond to patient emotions:

> *I think that comes from patient encounters. I don't think there's ever a didactic of like "Let's teach you how to be emotionally prepared"* (Family Physician 26).

Nurses also described having little to no formal training in responding to the emotional aspects of traumatic birth experiences: *I don't think it was ever discussed, I mean, especially as it relates to maternity care* (Nurse 06). One nurse discussed drawing on her early nursing training, but not having opportunities to gain additional training since becoming a maternity care nurse:

> *I think in nursing school, you talk a lot about ... the whole person, and what it all means, and the processing. But I didn't go into labor and delivery until eight years after I was out of nursing school ... so, you forget. And then, I will say, in terms of professional development, I think it's out there. I just think because of my career path, I haven't been as exposed to it as somebody else might be* (Nurse 11).

Although some midwives described their training as including trauma-informed care, some said they also often find themselves unprepared for patients' response to birth trauma. *There is not a whole lot of training other than "this is something that happens"* (Midwife 13). She described her uncertainty about the best approach with patients who experience birth trauma, given the often-conflicting literature about the usefulness of patient birth trauma debriefings: *... for some people the space to dialogue ... about it is helpful and for some people, it's actually more traumatizing.* Both midwives and physicians described offering behavioral health referrals to patients. An obstetrician said:

> *We talk a lot about how people are doing, and whether they feel like their anxiety, or trauma, or mood is affecting their daily life. And, if it is, I would offer counseling as kind of a primary way. I would – especially for that kind of traumatic story, I would tend not to offer medications as a first line thing just because I feel like that things need to be processed a little more* (Obstetrician 17).

4.2.2 No Structure for Self-Care: *A magnet that said call this number*

In coping with their own emotional response to birth trauma, participants described a lack of structure or formal processes in their place of employment. Many said this lack of structure for processing birth trauma experiences left them unprepared for the inevitable "next" traumatic patient situation. Nurses noted that they rarely had time during their shift to discuss or debrief traumatic experiences. Physicians noted that they had formal mental health support during residency, and most said they had developed relationships over the courses of their careers and could find someone to talk to about their response to traumatic birth. They noted, however, that this tended to be through informal conversations. Midwives were the only providers who described some form of regular, on-going opportunities for reviewing their experiences at birth, although they too noted that time constraints limit discussions. One said:

> *Talking to other providers, case review, I think can help, you know, looking at whether it's a bad outcome, or, if it was a patient expressing trauma, or a dissatisfaction -- reviewing that with other providers just to go through … and say – "I did everything I could have done" or, "Here's some things that could be done differently next time to avoid this kind of outcome"... in a sense just reviewing it and releasing responsibility* (Midwife 28).

Most midwives, however, acknowledged that they do not always have enough time to discuss their own responses to birth trauma as a group:

> *There's not always a slow shift or an opportunity to talk … our lives are crazy. Even though in our group we really value the social relationships and providing that kind of support for one another, but it's not always practical* (Midwife 13).

Physicians described talking with colleagues informally, although some acknowledged that colleagues might have limited insight.

> *I don't know that we know how to respond to somebody who's [struggling]-- other than "Oh my gosh, that's terrible"…*
>
> *Certainly, there's an opening up of that vulnerability of "I'm going to share with somebody something terrible that happened to me, and how I responded to it … trying to delve into how it still affects me"* (Family Physician 02).

This physician also noted that some do not examine their own emotional response: *I wonder if sometimes it's a wall that's put up, this big emotional wall that gets put up* (Family Physician 02). One obstetrician described conversations with colleagues like this:

> *I think that there are probably people that don't share, and it really builds up inside, and hopefully some of us, we talk about it when it happens. And, often you encourage – there are people that are younger than me that come into my office and … you can't help it but be like, "Well, that's not even that bad" in a joking way ... "Well, if you think that's bad, imagine if it was this bad" you know? It's not trying to make light of the situation but just sometimes … basically saying, "I've been there too, and it was even worse, and I'm still here" or something. We're not that great maybe at acknowledging it … a physician – or any provider – doesn't always sit there to feel the injustice or hurtfulness of these things that happen. It's just the way people cope with things is to kind of put them behind them.* (Obstetrician 17)

One family physician remembered a maternal death nearly 20 years ago from an amniotic embolism, a rare condition when amniotic fluid enters the bloodstream. The death had occurred early in her career as an attending physician at a local hospital, even though she was not directly involved in the patient's care. She said that the maternal death, an event that happens less frequently than infant death, affected all those working in maternity care at the hospital at the time, but that hospital management did not realize the event's potential impact on all providers:

> *And, then at [the hospital] there was again a coming together a short time afterwards. But it only included the OBs that were kind of— the OBs and the OB residents that were involved in that [for an official debriefing]. There wasn't like a feeling out of everybody that had been there that day* (Family Physician 02).

In spring of 2019, while the interviews for this research were being completed with local maternity healthcare professionals, a Pittsburgh mother died at the same local maternity care hospital, also of an amniotic embolism. April Martinez, 35, died May 26, and her son Luca was born by emergency C-section.[149] The interview for one obstetrician participant in this study took place just one week after the death. The study participant had been working at the hospital the day of the death, although she was not involved in the patient's care. Her comment about opportunities for processing that traumatic event closely mirrors the family practitioner's comment about the maternal death nearly 20 years earlier:

> *… today I was talking to one of the MFM people because she was here when that patient died and was saying she wasn't sure if there were any sort of services to offer for us. Because there's a lot of things for everybody else, like for family. Even nurses have something, but she was like, "But, does anybody care about our feelings?" … for us, that's really hard too. But I think people just assume that we don't care, or we don't have a response, or it's not the same. There's definitely a debrief to talk about what happened, but I don't know that there's a debrief to talk about how everybody is feeling about that* (Obstetrician 27).

All nurse participants except the two charge nurses reported finding limited formal support at their hospital for coping with their own responses to the traumatic experiences they faced in their role as maternity care providers. Many, however, said they found supportive colleagues they could talk to informally. *My co-workers are amazing, for immediate debrief. And, some of my best friends are now my co-workers, so debriefing later* (Nurse 09). Another said:

> *Sometimes when we get together, we kind of talk about the birth trauma. Sometimes it's good just to get it off our chest. Sometimes, you know, you leave work and you just feel so heavy, just so much heaviness from the sad things that you saw. So just talking about it helps* (Nurse 21).

Two charge nurses (supervisors who provide support at deliveries but do not provide on-going bedside patient care) described completing formal management debriefings about

potentially traumatic births, although these debriefings usually did not include the bedside nurse who had cared for the patient.

> *We talk about it a lot. We actually do a debriefing. We do safety rounds six times a day, three times a shift. At nine, twelve, and four. Or, we pretty much will go through the entire board of patients, discuss everything that's going on, and then at the end we do a debriefing of anything that went on. And, we will sit, and we'll talk with colleagues and discuss like, "What could have gone better, or we could have done" And, I think it's your second family* (Nurse 19).

Nearly all nurses noted that patient volume at their hospital prevented them from discussing traumatic experiences immediately after they occurred. One nurse, describing her situation after her first traumatic experience said:

> *While you're at work you're busy so you're not going to have time to really debrief this … But I have to say … I was pretty shocked when I was basically given a magnet that said call this number if you feel like you need help* (Nurse 05).

Of all three provider groups nurses described the least autonomy in taking time for self-care during their work day. Several nurses described how the lack of resources for coping with traumatic experiences could contribute to burnout or compassion fatigue, described earlier, which could in turn affect patient experiences. For nurses, the lack of structure for coping with trauma was further complicated by understaffing, which is described in the next section.

4.2.3 Inadequate Staffing: *Running around like a chicken with your head cut off*

Nurses, midwives and physicians described staffing levels as inadequate for labor and delivery nurses at one hospital, and many connected the lack of nursing support to increased potential for patient experiences of emotional trauma birth, either in conjunction with poor physical outcomes or even after uncomplicated deliveries. Several nurses referred to American

Nursing Association staffing guidelines for maternity care nurse-to-patient ratios during their interviews:

> *So,* AWHONN *standard is one-to-one if they're complicated. And, two-to-one if they are uncomplicated until they reach active stage of labor, and then it should be one to one. Our facility does two-to-one for everybody* (Nurse 05).

Nurses described being so busy that they were unable to take breaks or use the restroom during their 12-hour shift.

> *We don't get lunches. I said this to someone the other day and they're like, "You know that's illegal, right?" I just laughed … We're supposed to [get breaks], but part of the thing about nursing is it's an essential service. So, I can't— but it's a culture thing, too. We have a culture of stress and anxiety. So, if I said to someone, even during a not-busy moment, if I was like, "Hey, fellow nurse. I'm going to go take my lunch right now" –that's not a thing that we do* (Nurse 14).

Asked what response she expected if she said she was going to lunch, this nurse continued:

> *Raised eyebrow and like, "I'm not doing your stuff while you're gone." Because we have to chart every half-hour on our tracings. So, I can go down to the cafeteria and get a salad—people will give me time to do that—but I eat the salad in the nurse's station, staring at my tracings* (Nurse 14).

Nurses described caring for multiple patients at a time and "clustering" care, which involved going to the patient room for brief periods of time to quickly accomplish multiple tasks. They described a general sense of feeling overwhelmed and pressured. As reported above, one nurse said: *You're bouncing like a ping pong ball between rooms* (Nurse 03). Two others described it as: *You're running around like a chicken with your head cut off"* (Nurse 04, Nurse 06). One summarized it like this:

> *I think sometimes nurses run into a room and sort of attack the patient to try to get things done quickly because we have five thousand other things to do, and one of the things that we put a premium on is* ***expediting*** *everything, making it fast. So, while you're in pain, "okay, let's get that epidural in, [speaking very quickly] here I'm going to shout out all of these yes-or-no questions, you're going to fill out your epidural questionnaire, hey, we've gotta get your pressures." Come on, [snapping fingers] let's go, let's go, let's go' …* and *then the patient [ends up] feeling like they've just been stepped over and treated as a vessel because you only have time*

> *for supporting the medical side of things and not the psychosocial or emotional side of things...*
>
> *…We put a premium on being speedy. Are you in or are you out? In or out? Come on, keep going [snapping fingers]. Some people have a bad reputation among the nurses for being too slow, and they get* ***all*** *these* ***positive*** *comments from patients* (Nurse 06).

She said that deviating from a "speedy" approach by spending more time with patients could lead to censure from fellow nurses for being "slow" even if patients gave positive reviews of the care: *But what about your peers? If you don't feel respected or valued by your peers,* ***that*** *leads to a sense of burnout* (Nurse 06). Several nurses said the higher patient-to-nurse ratios affect their ability to care for laboring patients, and some said they believed it contributes to nurses' experiences of burnout as well as patient experiences of birth trauma:

> *You're not going to be able to give them as good care. So, some of your care is dictated by your ratios and outside circumstance – not necessarily a patient…If you're torn between two patients that are vulnerable right now, that have need, you're divided. And, then you have someone else saying, "Get ready. I need you to scrub into the O.R.; someone else is going to take over." There's a lack of continuity of care … if you're not in there, how are you able to really advocate for your patient? If you're like – … I really haven't looked at her face in two hours because I've been doing A, B, C and D instead. So, with tighter ratios, the rapport between patient and nurse is going to be better* (Nurse 16).

Nurses said they might not have an opportunity to answer patient questions or explain hospital processes completely or might be unavailable to be with the patient when procedures take place, such as breaking the bag of waters, because they [nurses] are with their other patient.

> *So, that's a situation where you're putting too much responsibility on one person's shoulders to be able to do the things that they need to do, correctly. A lot of the nurses feel that way … and that sense of helplessness,* ***that's*** *traumatizing. That's the crux of trauma, I feel like … I am, by no means, an expert … that sense of loss of control* (Nurse 06).

Nurse participants contrasted their sense of overload during normal bedside care for uncomplicated deliveries with the immediate backup available at the hospital during emergencies.

> *We almost always have enough backup [when emergency "codes" are called] And, we have the ability to call people in on a dime, like call them into the room. If you're pushing and you have a shoulder dystocia, you just hit that staff assist button* (Nurse 09).

A midwife reiterated the contrast between emergency response and "normal" care:

> *…[the hospital] does high risk stuff really, really well…But, when it comes to just a normal birth – that can be done very poorly just because they've got so many other things that are happening that take priority over the person who is about to crown her baby in triage, and nobody's there because she's been in there for hours, and she's just a normal person* (Midwife 08).

Physicians and midwives also noted that nurse staffing levels affected the way that patients experience birth. *I know the nurses feel pulled and stressed,* said one obstetrician who works with high-risk patients *(Obstetrician 24).* A midwife said:

> *The nurses have too many patients to be able to address emotional needs. They're trying to get all the minimum done and get all their charting done so they don't get sued … And then, on top of it … it's not a part of [nursing] education, you know, to really talk about the integrated physical and emotional experience of having a baby* (Midwife 07).

Another midwife said nurses are key to minimizing trauma because they can answer questions and provide reassurance when patients are frightened:

> *I think that the nurses at [the hospital] do a great job. But they're really pressed for time and the number of patients that they have, so, I think if we have the ability for the nurses to be there and provide nursing care, that really helps* (Midwife 12).

An obstetrician noted that in a setting with an over-extended nursing staff, patients might not have an opportunity to ask questions, which has an impact on her own practice as well:

> *They're way understaffed … And, I think that's part of it too because when you have a nurse that's just like taking care of one or two people, when you have questions, [the nurse] can come in and address that or if something is going on that's crazy. It's like you develop a relationship with the nurse … it definitely does affect the way that I practice because I think you can't depend on the nurse to do as much stuff. Or expect that they've, like, explained anything … Where I was before, there were certain things that the nurse already would have gone through with the patient, and I knew that they talked about it before … here that's not the*

case. I feel that I have to do that for them. It's not like it's a huge deal for me. But it is just different (Obstetrician 27).

Although all nurse participants in this study worked at the same facility, other midwife participants who are based at other hospitals described the benefits at those hospitals of one-to-one nursing for their patients and for themselves as maternity providers.

> *They [nurses] certainly address her [the patient's] experience … by spending more time, kind of talking through everything that's happening and why it's happening …giving more information more explaining, a lot more emotional support whether It's physical comfort, verbal comfort. I think a lot of women get … a lot of explanation and being able to process the situation, through the nurse … usually in most cases with one-to-one nursing, a nurse can be a little bit more present to answer questions and kind of explain … what to expect … I think the one-to-one nursing care does make a huge difference just so there is one constant person that can be consistent with that patient* (Midwife 28).

4.2.4 Lack of Patient Preparation: *I only have fifteen minutes*

Physicians and nurses were nearly universal in noting that patients often arrive at the hospital unprepared for the birth process and that this lack of preparation can contribute to patients experiencing the birth as traumatic. Nurses commented that physicians should prepare patients during their office visits, while physicians commented that their prenatal visits do not allow enough time for childbirth preparation. One obstetrician said:

> *Number one – insurance companies and the healthcare system forces doctors to shorten their visits. So, you have to see people in five- or ten-minute-increment slots. And then, in that time you have to encompass all your prenatal education on top of all the problems that they have … I would say most doctors probably see it as addressing the patient's primary issues, if they come in with a list of twenty-five questions or concerns, they're going to be more upset that you didn't address the questions, versus starting to try and begin to talk about what's going to happen in labor … And so, a lot of the times that stuff will get brushed to the side* (*Obstetrician 24*).

Another obstetrician also described using her minimal time for physical care issues rather than childbirth prep:

> *I'm like, Okay, I only have fifteen minutes … we need to talk about vaginal bleeding, and preeclampsia, and yeah, that kind of stuff over [preparing the patient for the hospital birth experience] … I mean, that's something that they can get from their prenatal classes, right? But, if you can't afford to pay like a hundred fifty dollars to go to prenatal classes, then that's not going to happen* (Obstetrician 27).

She said her patients at a community clinic might go to a free hospital tour but rarely attend childbirth preparation classes.

Midwives noted that their lengthier appointments, usually at least 20 minutes, are a "luxury" and allow for more patient preparation, but that even that falls short. One midwife noted ongoing challenges of helping women prepare for birth:

> *Over like many years, I've thought isn't there any way to just prepare women better? And, when it comes down do it – when you try to discuss reality, they glaze* (Midwife 08).

Another noted that most patients get information on-line:

> *There isn't time for education. And, there are lots of resources like, you know, within the health network there's classes and things. But you have to pay for them … And, women who have other children and work and not being able to go to them, so. I have a lot of patients that are just looking into different resources online. Some good, some bad … And, women are always getting information from other women … We do have a good number of patients that are still taking classes, which is a real good resource. But … I'd say online is where most mothers are researching (*Midwife 28*).*

Several midwives pointed out that first-time mothers often do not know what to expect: *"Oftentimes when you're pregnant and having a baby, it's your first medical experience* (Midwife 15). Another connected this situation to increased potential for birth trauma:

> *I think on a systemic level – I think that's where we are creating this trauma because … we're throwing them into a scary situation where some women – that is the first time they've ever walked into a hospital. And, that is a terrifying experience, where you entirely go from being a completely healthy twenty-five-year-old person to being strapped to a bed with an IV, on monitors, being asked all these questions in the midst of labor* (Midwife 10).

Several nurses specifically mentioned inductions as something patients seem entirely unprepared for AND as something patients describe as traumatic. They said patients who are being induced rarely understand the process they are undergoing, which can easily last 36 hours, and can also lead to the patient describing the birth as "traumatic":

> *… I've had patients come in … for their induction perfectly happy, not contracting at all. And, thinking, **truly thinking**, that in six hours they're going to have a baby in their arms. And, to sit down and say – "So, this is what an induction is like" ... I don't think that many women have truly actually watched a real birth, like, to really understand. Because, when you tell them, they're like – "How long have I been pushing?" And you're like, "You've been pushing for twenty minutes, we could push for up to two hours." They're like, "**Two hours**?! And, I'm like – "Well, that's not abnormal for a first-time mom…" I don't think they had talked about induction in the office. And, I feel like I experienced that with a lot of women… I think there's like a miscommunication. Or, a communication gap between, like, I don't think the providers are talking to their patients about what inductions are really like* (Nurse 05).

Patient Expectations. In describing patients' general lack of childbirth preparation, participants also described certain patient expectations that they said contribute to birth trauma and in some cases the "types" of patients that they believed more likely to say they experienced birth trauma. For example, one obstetrician described patients' romanticized ideas of birth as contributing to patient perceptions of birth trauma:

> *People have this expectation that birth is supposed to be this like magical, wonderful thing and it is, obviously – you're having a baby. But I think the whole concept is like, this competition to have this like – "Oh, I had this magical, wonderful – I was in the woods with unicorns around me and by the river, and I didn't have an epidural." And, when they don't get that -- they feel like they're a failure of some sort* (Obstetrician 24).

Midwives also described highly defined patient expectations as closely connected to birth trauma:

> *The midwife role in particular can be difficult because someone who comes to midwifery care has a very specific vision of what they want in their birth. And … we also are providers and want to follow evidence-based care and prioritize maternal and fetal safety, and, I think sometimes we get stuck in the conflict where women feel like – "Well, I came to a midwife for this birth experience." So, when*

it doesn't go that way – it's almost like they feel a little betrayed in a sense (Midwife 28).

Nearly all participants said patient expectations are a strong contributor to feelings of trauma after the birth. Physicians and midwives described patients' sense of "failure," particularly in cases of unplanned c-sections, as a factor in patients' experiences of trauma. For example, the physician who described patients imagining unicorns above said:

> *So, in laying that out though, and then trying to help people … not minimizing it to "at the end of the day we want a healthy mom and a healthy baby," but, also being a little bit more realistic in like, it is a beautiful, wonderful experience. It's a very natural experience. We do not need to medicalize it as much as we do, and I'm a very big advocate of that. But, it's also not some like mysterious, magical, like competition against every other woman in the whole world. Like the woman who has to have a planned, scheduled C-section, who is not able to nurse her kid right away is just as much of an amazing mom as a woman who births in a birthing center, or she chooses to at home. And, I think that competition that sets women up to feel like failure*.
>
> *…The number of women who we've had to see in our office who have some unforeseen complication where they are going to have a scheduled C-section, and you can just see the depression set into them. They feel like a failure* (Obstetrician 24).

This physician said patients also often describe feeling "traumatized" when they have difficulties breastfeeding. Another obstetrician also named unplanned c-section and difficulties breastfeeding as two factors that patients report as "traumatic":

> *There's a lot of drama around whether people that can breastfeed or not because some people feel very strongly about breastfeeding, but yet it's not a possibility for everyone, and you don't know that until you try, and trying and failing can be very frustrating. So, there's kind of a variety of things around the delivery experience and the post-partum experience… They can all be traumatic…I would say that the for my patients the most quote unquote "traumatic things" tend to be around an alternative birth experience expected* (Obstetrician 17).

A midwife also commented on breastfeeding difficulties as a factor in birth trauma:

> *Unfortunately, we've become kind of like a society where you must breastfeed, and if you're not breastfeeding, you're failing as a mom. And so, and it's just a lot of*

> *patients really are very committed to breastfeeding, and for whatever reason aren't able to produce the milk. The most trauma I've seen, and the most upset I've ever seen someone is after a loss or not being able to breast feed. Because their body has failed them. Like even people who need a C-section, that usually is fine. Sometimes people have a really hard time, but it's not being able to breastfeed, struggling with breastfeeding, and loss like a miscarriage, or a loss. I can't do it what I'm meant to do as a woman* (Midwife 29).

A family physician who has focused on birth trauma in her practice said that it is the ***language*** of failure that is a factor in trauma, particularly in cases of unplanned c-sections:

> *And so that—years and years and years of listening—really taught us a lot about how people don't understand what's happening to them necessarily. They don't feel cared for. They are really upset by words like "failure to progress." And, you know, words like that, "failure to dilate." Those failure words. People really can internalize those, **and** their partners can* (Family Physician 22).

A midwife pointed out that women's sense of failure, while perhaps related to individual expectations, also is influenced by their health system interactions, which define unplanned c-sections as "failure" in the medical language:

> *I think also you're likely to create a setup for trauma when you talk about failure. And, I think there's a lot of talk about failure on a woman's part. Especially in the operating room where you do a timeout to talk about her failure -- it's really upsetting to me. So, there's timeout: "failure to progress," "failure to descend," "failure to dilate," yeah. It's upsetting because at that—a timeout happens when a woman is quote-unquote "strapped to the table." And, usually with her pubis showing. And, everybody stands around and talks about her failure. It's pretty terrible* (Midwife 15).

4.2.5 Losing Track of Patient-Centered Care: *Talk people into … standard care that you get in a hospital*

The example described earlier of common medical language that might inadvertently contribute to patients' sense of failure and psychological trauma leads into this section detailing participants' descriptions of how their health system might be losing track of patient-centered care. Some participants described the model of care within the maternity care system itself as a potential

contributor to birth trauma. They used words like "medicalization," "routinization" and depersonalization to describe what they saw as potentially traumatic health system interactions for patients. One family physician said,

> *…the whole system is medicalized, and done for the safety of doctors and nurses and hospitals, legally … They just have built up this whole world of – "This is how we have to do things to keep everybody safe." And, it's not true* (Family Physician 22).

One obstetrician described hospital policies that are not flexible for individual needs or preferences, such as patients who do not want a hep lock or IV at the start of their birth:

> *Our obstetric practice medicalizes birth to an extent, by making everything seemingly like you can control it, … that if you do all these things, everything will be okay … It's very deceiving. And so, sometimes we provide all this information, which is a lot of just noise, but people think if all this testing is good—then everything must be good. And … you know, the testing has almost nothing to do with a good outcome. A good outcome is just gonna happen … ninety-six percent of the time basically…*
>
> *Honestly over time, it's not worth fighting a lot of those smaller battles. I'll do it from time to time, but I try to kind of focus on the big picture … [telling patients] "We're trying to put you first, and we're going to put you first in kind of a* ***global*** *way. But … we're gonna have to do it within this system."*
>
> *The hospital … is not a place that's responsive to people's personal desires. Essentially, what you do is just try to talk people into, that the standard care that you get in a hospital is actually what you want. [chuckle] This is just, it's a system. It has to be that way. It's too complex and too expensive … to be another way (*Obstetrician 17*).*

Participants said the structure of care leads to a loss of "patient-centered care." A family physician said:

> *There's a depersonalization in birth. I think that we have these centers, several centers that just do large volume, and shift work for the nurses, and I think the burnout for this nursing staff is part of it* (Family Physician 02).

Participants said staffing inadequacies and high patient volume contribute to lack of patient-centered care and a view of the patient's "experience" as a luxury. One said:

> *Providers are very, very busy. And, if you are managing several women in labor at once, your priority is to think about just making sure you have healthy babies at the end* (Midwife 28).

Another described a similar situation:

> *The hospital environment. It's busy … privacy is sometimes a problem. The pace of things, you know, sometimes makes it difficult to spend the time that you'd like to with the patient* (Midwife 12).

A midwife described how high volume and lack of time can lead to "one-size fits all approach" that can lead to further miscommunication and potential patient trauma:

> *Some people may be higher needs than others … We have to try to figure out a way to meet in the middle for those folks because what they're pushing for… if you take the time to explain to a family... "So, here's why continuous fetal monitoring might be necessary. Here's why an IV might be necessary" …*
>
> *But what happens is … when you have not established trust with somebody and then they're feeling like – "Man, this is just not going in the direction I'm hoping. They're talking about things that I'm not comfortable with" – induction or epidural, or testing, or ultrasounds, or whatever. And, there's no level of discussion, right? It's just a completely one-sided conversation of like – me relaying information to you for you to understand and do what I'm saying to you.*
>
> *That's where … where woman push back, rightly, either from true evidence-based, on things that they're getting told that aren't necessarily true, which I think happens, or, a lack of understanding, because nobody's taking the time to explain to an individual* (Midwife 10).

In relation to the lack of patient-centered care, a nurse, when asked about birth trauma, said:

> *It's actually kind of funny that I never really thought about it from the patient perspective until my sister kind of went through a situation where she- everything that could go wrong went wrong* (Nurse 19).

4.2.6 Lack of Continuity: *There's a lot of turnover of care*

Expanding upon their descriptions of depersonalized care or the lack of patient-centered care, participants described maternity care as "fragmented," which some said exacerbated the depersonalization and lack of patient-centered care. Some mentioned fragmentation in relation to

prenatal care and some described fragmentation in delivery care at the hospital. Midwives and physicians described the efforts at their practice to ensure continuity of care. For example, one obstetrician who works with high-risk patients said:

> *There are a lot of providers [in our practice] and so we try and do as much, getting them to have a one-on-one provider to make them feel as comfortable as possible… we ask them if they would prefer that, and then in my experience they do tend to prefer having one provider* (*Obstetrician 24*).

She, and most other physicians and midwives, said their practice cannot guarantee a specific provider will attend the patient at delivery, but noted that patients often asked to have a consistent provider. Another obstetrician noted that it can be unsettling for patients when physicians on duty come and go during a long birth or when multiple residents become involved in care.

> *The in-and-out [of different providers in the patient room], sometimes, is a lot for people. And then, I think because it's such a high intensity learning environment, and … you really can't* ***not*** *have a resident, at least involved in your care here. Like it's almost really, not possible. And … there's a lot of turnover of care here, because we work in twelve-hour shifts. That's beneficial for us, but not necessarily bene-- I mean it is beneficial for the patient because you don't have somebody who is dead tired taking care of you* (Obstetrician 27).

Several nurses described lack of continuity, particularly among patients seen at the hospital's outpatient clinic, which is called the "continuity clinic." One described the moment when she realized, after years of practicing at the hospital, that the initials on patients' charts meant they were seen at the "continuity clinic:"

> *I was like, "is this supposed to be funny?" Because I guarantee you on any given night in triage when I ask people [from the continuity clinic], "What's the name of your provider?" They can't* ***ever*** *tell me. And, I'm flipping through her chart and I see she saw a different nurse practitioner, doctor, midwife for* ***every*** *appointment. So, how's she supposed to know who her provider is?* (Nurse 06).

Another nurse noted that since first births tend to take longer, the physicians and nurses caring for a typical primipara could change (go off duty) several times, resulting in no continuous provider for the patient over the course of her labor.

> *We're [nurses] … normally switching every twelve hours, but … if they are a clinic patient, the residents are swapping in and out because of c-sections, because of somebody needs to get X number of births … so even within twelve hours, you might have five different doctors. I'm not exaggerating. So, can you imagine within, say a birth takes thirty-six hours, you might have seen fifteen different doctors. That is possible. And maybe, in a twelve-hour shift and I get pulled off to three different units – that would be a really busy night but not unusual—so, you might also have, within twelve hours you might have five different doctors and three different nurses. How are you supposed to feel safe in your room? How are you supposed to feel like you could have any expectations?* (Nurse 03)

4.2.7 Poor Communication: *A voice and a choice*

Participants from all groups described using anticipatory guidance to forecast next steps during labor and potential interventions but said that time constraints and patient volume can sometimes interfere with communication. Nurses in particular described being pulled away from one patient for another patient's needs before they had a chance to explain something or answer questions. In some cases, participants said poor communication contributes to potentially traumatizing experiences. A nurse said that patients can feel excluded from the decision-making process about their care:

> *I think a lot of trauma in this aspect is based on a woman not feeling like she had a voice and a choice. Even though, she may ultimately go with provider recommendation – she doesn't feel like she was part of it. And, I think that's where a lot of the trauma stems from* (Nurse 16).

Another nurse tied poor communication to lack of continuity and high turnover of care: providers, particularly trainees, who do not know the patients can be perfunctory in their explanations and speak in medical jargon:

> *I feel like an interpreter, English-to-English a lot of times because a provider will come … and just rattle off all this stuff and be like, "Cool? Good. Nice to meet you." Already checking the pager and backing out of the room. And, she [the patient] nods along and says – "Yes, yes, yes" (*Nurse 03*).*

Some participants raised the issue of power dynamics in patient-provider communication, noting that providers can sometimes forget the weight and privilege of their position as medical "experts." Several described the challenges of building trust with patients, particularly those who might not easily trust providers, especially when they are meeting them for the first time. One nurse pulled together several of the previously described system factors related to birth trauma, noting how frightening labor could be for a patient who did not receive much preparation for birth, does not completely understand what is happening with her body, has a nurse who is rushed and perhaps impatient because she has other patients to attend to, and is examined by several physicians, and perhaps residents over the course of several hours. She said that even when patients do not understand what providers have told them many patients will not ask questions, especially when meeting new providers for the first time:

> *There's a statistic from the "Listening to Mothers III" survey that twenty-three percent of women – and …. double check me on this … twenty-three percent of them said that they avoided asking any questions for fear of being seen as difficult* (Nurse 06).

Other participants were impatient with patients who are not prepared for birth and who do not understand hospital procedures. One described patient from the hospital's Continuity of Care Clinic who were admitted for health problems during pregnancy but declined care and seemed to not understand the seriousness of their condition. She gave this example:

> *She would come in because of her blood sugars were really high, but she refused to let us do anything. I finally said to her, I'd go, "Then, why are you here?" It was like you honestly, you're coming here, you don't treat us very nicely. You don't want us to do anything to you, and you literally just come in here, and, then you*

> *leave, again, without us doing anything. "Well, the doctor told me to come in." But you're not letting us do anything* (Nurse19).

Some nurses acknowledged that their own exhaustion and burnout could interfere with patient communication. One nurse described tempering her impatience with a patient by considering the power differential:

> *When I'm feeling burnout, too, it helps me. If I'm like, "I just don't wanna be in this room," for whatever reason. Whatever my thing is, she's pushing that button. If I sit down and just remind myself how vulnerable she is, and how much more power I have in the situation, how much more physically comfortable I am, that helps. You know, no matter how tired I am, no matter what* (Nurse 06).

Family physicians and midwives both described the importance of anticipatory guidance: *I honestly think anticipatory guidance is key in communication to get patients, to avoid that trauma* (Family Physician 26). Midwives described shared decision making as fundamental to their practice.

> *It's such a tenet of midwifery care … even in the midst of a crisis how do you obtain informed consent and make sure people feel like they're knowledgeable about what's happening, when so much … is happening to them? While … they're in the middle of labor, right?* (Midwife 10).

However, even efforts to maintain open communication sometimes fall short. One midwife described a birth where she believed the couple had agreed to c-section but afterwards they said they had felt pushed:

> *It should be okay, I think, to lay out risks … and, if someone really feels like those are the risks they want to assume … But I don't know --the line between, "am I pressuring you" and-- because it really is what I think is best … But … there's a power differential … so even though I thought that they were agreeing – they didn't feel comfortable. I don't really know what else I could have done* (Midwife 13).

Consent for c-sections was a topic that came up with all obstetricians, who described having patients say they were forced to have the surgery or that they are traumatized by their c-section.

> *I think a lot of people feel like they've gotten kind of bullied into c-sections… because they feel like they were pressured into it or something like that. And, I think sometimes that's from lack of just communication about what's going on, because … I'll look it up in the chart and it'll be like "a non-reassuring fetal heart tracing, terminal bradycardia" and I'm like, "Well, yeah, you need a c-section for that"* (Obstetrician 27).

She attributed patients' sense of being bullied to poor communication, including lack of anticipatory guidance. Another obstetrician described situations in which the physician believes a c-section is indicated but the patient does not want surgery.

> *It's very hard to give a good informed consent because your risk seems so dire … You can use [the risk to the baby] as a coercive factor, which is how I think most obstetricians use them. They're just like, "Well, we don't want the baby to die." And, I try not to say that …*
>
> *But at some point, you have to be just like, "That is the outcome that I don't, that I can't tell you that I feel…" I mean how do you say it in a nicer way? "I can't guarantee the health of your baby right now to the extent I would like to." You try to say it in a positive way, but if you say it in a negative way it's like, "I'm worried about still birth" and they're sort of like, "Uh." You know what I mean? That's a hard decision … So, I would say that an informed consent in these circumstances is really hard and really what I would say is that I'm trying to get to a point where I feel like I'm not coercing the patient. I want them to agree and be like, "Yes, I do want a C-section" but … the key thing is that you just don't want to do something against someone's overt will. I wouldn't do that, but there are times when you're like, they clearly don't want a C-section, but they're like … "Yeah, save the baby"* (Obstetrician 17).

Additionally, participants in all provider groups described situations involving lack of informed consent for examinations or procedures, which are described further in **Section 4.3.3: Connecting Trauma to Mistreatment: *She kept telling him to stop and he didn't stop*.**

4.2.8 Culture of Chaos: *People are talking … but no one is addressing you*

A final system factor that participants described as contributing to birth trauma seemed to be the sum of all the previous factors: nurses caring for too many patients, patients unprepared for

childbirth, lack provider time for giving anticipatory guidance, patients who do not know their providers, and providers who are switching out over the course of care, all within a context of poor communication. One obstetrician said that patients can find themselves being taken in for C-section without fully understanding what is happening: *I think people try, but … everyone just kind of goes into autopilot, and things just start happening, but no one is really explaining [to the patient]* (Obstetrician 27). She described working in another hospital that had a designated person to explain to the patient in all emergency situations:

> *But, there's not really that type of organization here. Like it does happen sometimes. But I've been called to those [emergency codes], and there's forty people [in the patient room], and it's like you have to fight through people to even get to the patient … or you have the opposite, where it's like everybody is trying to explain what's going on, and it's not like making sense* (Obstetrician 27).

She and others commented that many patients describe the emergency code itself as traumatic, even without any poor physical outcomes, because so many people rush into the patient's room at once. She said the chaos from lack of coordinated communication with the patient as they go into the operating room can potentially overwhelm and traumatize the patient.

> *It's either everybody just gets so involved in doing stuff and people are talking, so I think you can hear what's going on, as a patient, but no one is addressing you, right? Or, you have the opposite where it's like the nurse is explaining and the anesthesia doctor is explaining, and the OB is explaining. It's like* ***everybody*** *is talking… and I find it overwhelming and I'm not the patient. I'm like, "What's happening in here?"* (Obstetrician 27).

4.3 Study Aim 3: Differences Across Provider Groups

The previous two sections presenting research findings about provider experiences of patient birth trauma and their descriptions of the contextual factors that they associate with birth trauma have noted and described similarities and differences across and within provider groups.

Convergent and divergent themes that address **Study Aim 3** have been described and named within the context of those sections addressing **Study Aim 1** and **Study Aim 2**. This section will focus on one of the biggest and most fundamental differences in participant responses: their definitions and connotations of birth trauma.

Interviews began with an opening question about "what comes to mind for you when you hear the words birth trauma," and participant responses varied widely, and not always along the lines of provider sub-groups. For example, some participants gave a solely physical description that included phrases like *episiotomies and tearing* (Nurse 11) or an *emergency situation* (Nurse 19) or *having a patient that loses a baby* (Nurse 23). Others began with physical trauma *an actual delivery-related injury like perineal trauma* (Obstetrician 17) but then also included the patient's emotional response: *being scared some is going wrong…exposure and vulnerability* (Nurse 03). Other participants described loss of autonomy: *feeling like they weren't respected or heard of they felt powerless* (Midwife 13). Others went beyond this to describe lack of consent: *Things happening to women without their consent or without their full understanding* (Midwife 28). Another said:

> *I think of women who feel harassed or feel that they had things done to them that they weren't prepared [for] or felt like consented to have done to them* (Obstetrician 24).

Lastly, some participants described a broad perception of birth trauma, calling it *an umbrella … it's a perspective* (Nurse 16). One said: *if the person identifies it as trauma, it's trauma* (Midwife 12). This last, broadest definition has a basis in the literature and the book-length exploration of birth trauma published in 2004 titled "Birth Trauma: in the eye of the beholder.[28]

During analysis, participant initial descriptions of "birth trauma" were placed along a continuum, ranging from the narrowest to broadest definitions, shown in Figure 2.

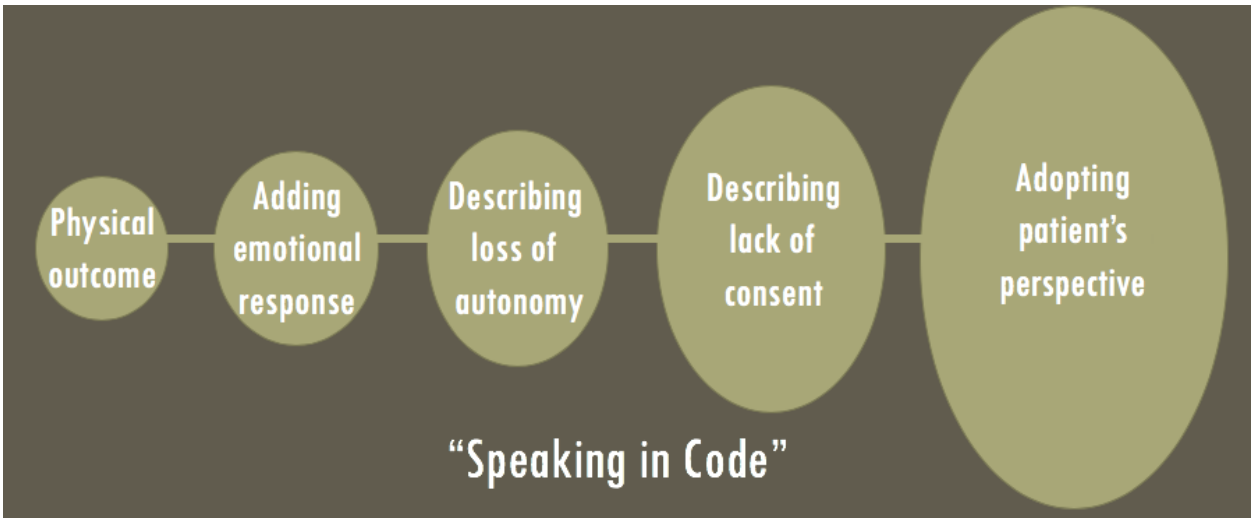

Figure 2 Continuum of Participant Perceptions of Birth Trauma

Because of this broad divergence, participant perceptions of birth trauma were distilled into the latent theme "Speaking in Code" to convey the stark differences in the was that different participants used the phrase "birth trauma" to signify widely different things. Within this theme, Speaking in Code, the following three themes are used to illustrate the differences in descriptions:

1) **Skepticism:** *A warranted reaction to a traumatic experience*

2) **Adopting the Patient's Perspective:** *If the person identifies it as trauma, it's trauma*

3) **Connecting Trauma to Mistreatment:** *She kept telling him to stop and he didn't stop*

4.3.1 Skepticism: *A warranted reaction to a traumatic experience*

Some participants described patient-reported birth trauma in the absence of medical emergencies or prior poor outcomes with skepticism. Sometimes they juxtaposed these patients'

emotional trauma with obstetric emergencies, which they perceived to be more serious. For example, this nurse described "a warranted" reaction during a patient's subsequent pregnancy after a loss [referred to as a "rainbow baby" when resulting in a live birth]:

> *I [had] a patient who lost her baby—a full-term baby, passed away inside and she delivered it—and, I just delivered her rainbow baby, which was lovely. But the entire time she was just anxious as can be. Panic attacks every couple hours. Her whole family was on edge. So, that is definitely a warranted reaction to a traumatic experience* (Nurse 09).

She contrasted that reaction with this situation:

> *… You start asking people about their previous birth experiences, and they'll tell you the whole story, and they'll act as if they're traumatized — which, if they say they are, they are. But, when you hear the story — she was in labor for eighteen hours, which to her is a terrible, horrible, long time. But to us, we're like, "Eighteen hours with your first baby? Great." And she's like, "And, they had to start my IV twice." And to her that's awful and to us it's like, "Twice." … perception is huge.*
>
> *… I would say that there's – yeah, there's definitely a line. I don't know what the line is. But I know that you could tell when a patient is* ***genuinely*** *afraid of what could happen next…. So, you can tell the difference. But I think a lot of people* ***would*** *say their birth was traumatic even if they didn't have something of that nature. "Traumatic" has kind of become slang for bad experiences* (Nurse 09).

One obstetrician began a description of birth trauma this way:

> *For my patients, the most quote unquote traumatic things tend to be around an alternative birth experience than what was expected … And, the classic example would be someone that's very well educated about kind of what they expect. And, they also are very, more empowered to talk to their provider about it.*
>
> *…A birth that was not the plan of the mother is a common trauma that we would deal with post-partum. So, "Oh, I was really planning a natural birth and I had to have a C-section. I was planning to breastfeed immediately, and I was asleep during delivery, so I didn't get to see that part. I thought it would be this way, but it was much more chaotic and scary, so I found that traumatic." … that's from a kind of a patient perspective, but it would be a common thing that would come up…* (Obstetrician 17).

One charge nurse described birth trauma as a patient satisfaction issue: *It's anything that's not what the patient's ideal experience is*. She said that her hospital is focusing on birth trauma

because the hospital is *real into giving the ideal hospital experience, the ideal birth experience* (Nurse 19).

4.3.2 Adopting the Patient's Perspective: *If the person identifies it as trauma, it's trauma*

At the other end of the continuum of birth trauma definitions from primarily physical definitions of trauma, some participants described accepting patient descriptions of birth trauma at face value. Midwives as a group tended to describe their perceptions of birth trauma in broad and generally uniform terms. One said, *I think that it's very individualized, that what a person, a provider or a patient, experiences as trauma is very individual* (Midwife 12). She continued:

> *We … were talking about someone that we've recently taken care of who has experienced a trauma and how my definition of trauma may not fit that … so, we need to be aware of it. And, we need to try to best meet their needs in terms of not re-traumatizing them* (Midwife 12).

This midwife emphasized the individual nature of trauma, the effects of prior sexual abuse, and the importance of obtaining consent from patients:

> *When we say – "Well … that shouldn't have been a traumatic birth" or whatever, we don't know what that person comes to us with. Like if someone's been sexually abused – a cervical exam, a vaginal exam, a breast exam can be very triggering and traumatizing for them … if you know that up front, then it's out there, and you can deal with it. And, I think also making it okay for women to say what works for them... Asking for permission when you touch somebody* (Midwife 12).

Midwives differentiated between birth trauma from unpredictable obstetric events and the trauma patients can experience from their interactions with the healthcare system, but they expressed acceptance of both. Many specifically mentioned loss of autonomy, another point along the continuum shown in Figure 2. Participants said loss of autonomy can be traumatizing for patients, depending on the circumstances. One midwife said:

> *The first thing that comes to mind is just the idea of somebody feeling like they weren't respected or heard, or they felt powerless. That's the first thing I think of. It's not always necessarily a dramatic medical event, but sometimes it's just the sharp words that someone said or that kind of thing* (Midwife 13).

Other midwives brought the patient's perception of the birth into their descriptions of birth trauma. One said:

> *I think of a person who experiences a really difficult birth, who feels that they've somehow lost control, and that their sense of empowerment's been taken away from them, that they've perceived harm or that they're scared for themselves or for their child … I think it's a fairly common event. I think any birth is susceptible to trauma … it really depends on the individual. Sometimes their past history and experiences of trauma and what they bring to the birth situation … it has to do … with the circumstances … and the support that they receive during the birth, and how they perceive that event* (Midwife 15).

Another said:

> *I think there's probably two kinds of trauma for women – like the physical trauma that comes from all types of birth … just by the mere fact of carrying a pregnancy and birthing a baby. And then…there's … emotional trauma that's become much more discussed in the last few years … there's a combination of both of those things that really impact families. And, I think it's real … trauma however it's defined for an individual, is really palpable among women in our country* (Midwife 10).

The nurse quoted earlier, who called trauma an umbrella, continued:

> *What could be considered traumatizing for one mother and her family – is completely appropriate to another… And, even if we don't necessarily agree, if we're like – "Why would you be traumatized by this? This is normal." We just try to think, "Well, how could it be traumatizing?" … and for providers to be sensitive to that fact … you don't have to understand. You just have to acknowledge that it's there* (Nurse 16).

A physician commented on the potential impact of a traumatic birth experience on future clinical care:

> *Well, there's the physical and the emotional right? So … we can make sure that the physical trauma that's occurred, that we keep addressing that, that we make sure that people are healing the way they need to heal, that people's bodies are repairing the way, the recovery is okay. And then, the emotional trauma. Just making sure that we're acknowledging to the patient that "I can understand why you feel this way. I understand that you do feel this way." And, maybe you* ***can't*** *understand*

> *why. But, acknowledging that they have those emotions, and … that sense of what happened, and then, coming back to that again when we're at moments that things might trigger it – like the postpartum visit or another pregnancy* (Family Physician 02).

Two nurse participants described attending a two-day in-service training at their hospital with nationally recognized birth trauma specialist Penny Simkin, where they learned the importance of support in preventing trauma. One nurse described how it had changed her thinking about birth trauma, particularly about her role as a clinician in affirming a patient's experience:

> *There's a difference between trauma and post-traumatic stress disorder. And, there's a line where, yes, you can experience a trauma and not make it a disorder. And, to do that you really need support. And, you need validation. You need that kind of, you know, you need your provider to say, "Yes, I know what you went through was really challenging, and I am so sorry that's what you went through. I validate your experience. I agree that that's what you experienced"* (Nurse 05).

Within this group of participants endorsing the broadest definition of birth trauma, some noted being unable to recognize if a patient is experiencing trauma without seeking feedback from the patient. One of the nurses said:

> *I don't always **know** how people feel. And, I've been so wrong …sometimes I'm **so** wrong. And, I've learned, [trauma trainer] taught me well to not say that **I** thought it was traumatic. And, sometimes I'll talk to people and be like, "So, how are you feeling about your birth?" Or, "What do you think?" And, they'll be like, "Oh, it was just fine." I'm like, [thinking to herself] "**I** was traumatized watching it." But they're like, "Cool." I'm like, "Okay"* (Nurse 03).

A midwife noted:

> *You'll talk to women who go through their labor and you think it's just fine and they were like, "That was worst thing that's ever happened to me." And, it's devastating … they felt physically alone … in this island of pain that even if we thought we were doing everything for them – they weren't there* (Midwife 10).

Two family physicians also described not always recognizing when a patient experienced birth trauma. One said:

> *So, yeah, I've had that disconnect [not seeing trauma when woman feels traumatized]. And, I try and take a step back and say, "What's happening that my*

> *priorities are not matching their priorities, their goals, my goals?" And, you know, try and get on the same page with them* (Family Physician 02).

4.3.3 Connecting Trauma to Mistreatment: *She kept telling him to stop and he didn't stop*

A final category of participant connotations of "birth trauma" that merits separate development includes participants' use of the phrase to describe situations where providers failed to obtain patient consent prior to initiating examinations or procedures. More than half of participants included descriptions of unconsented procedures or other forms of what is broadly described as "disrespectful maternity care" or "mistreatment" in their descriptions of birth trauma, although participants did not use the term mistreatment.

For example, one midwife said, in describing birth trauma:

> *I think about things happening to women sometimes without their consent or without their full understanding that leads to affects after the birth has happened* (Midwife 29).

Another midwife said:

> *I think doing things without a women's consent and, that comes to mind, and I just think not respecting someone's wishes, and the lack of acknowledgement, and a lack of a validation that what they want is important for the experience* (Midwife 28).

And an obstetrician said:

> *I think of women who feel harassed or feel that they had things done to them that they weren't prepared or felt like consented to have done to them (Obstetrician 24).*

Those descriptions, using the phrase birth trauma to describe such problematic patient-provider interactions, prompted an additional content analysis, as described in the **Methods** section, exploring the participants statements connecting birth trauma with mistreatment and

abuse. The following section presents the results of that analysis, which further explores participants descriptions connecting trauma to mistreatment.

4.4 Additional Analysis: Mapping Birth Trauma Descriptions onto the Typology of Mistreatment

For this content analysis, participant descriptions of birth trauma were mapped onto six of the seven categories in the "Typology of mistreatment of women during childbirth" developed by Bohren et al.[125] Overall 18 of the 28 participants described at least one example of patient treatment that could mapped onto six of the seven categories in the typology. These included 1) Failure to Meet Professional Standards of Care; 2) Stigma and Discrimination; 3) Poor Rapport Between Women and Providers; 4) Health System Conditions and Constraints: 5) Verbal Abuse, and 6) Physical Abuse. No participant statements were mapped onto the remaining category of Sexual Abuse. The categories and the participant descriptions are presented below.

It is important to note that participant descriptions were in response to questions about "birth trauma," and that interviews did not include questions about "mistreatment" or "abuse." In more than 30 hours of interviews, transcribed to more than 800 pages, the word mistreatment appears only one time, in a quotation below from Family Physician 26 describing mistreatment of patients who do not speak English. The word abuse appeared only when participants described patient histories of sexual abuse.

Failure to Meet Professional Standards of Care. This category on the Bohren et al. typology includes lack of consent, painful vaginal examinations, and refusal to provide pain relief, along with several other types of failure to meet professional care standards. Lack of consent was

the most frequently described patient experience that mapped on this category. Several of these examples were presented previously under the sections **Connecting Trauma to Mistreatment** and in the sub-section **Moral Distress** because participants described their own conflicted reactions to the experiences.

Participants described seeing other maternity care providers perform cervical exams, cut episiotomies, rupture membranes, and perform vacuum-assisted deliveries without obtaining consent, without explaining the procedure and sometimes without patients being aware of what had taken place. One nurse described this situation:

> *I got this patient one day; she was young, I think a late teen. She had a lot of family support though ... And we have this one resident … he was doing a cervical exam on this girl, and he was trying to put in a Foley bulb, which is* ***the*** *most uncomfortable thing … Getting a Foley bulb placed, I think, has the potential to be one of the most traumatizing things that we do … and it's a prolonged cervical exam and it involves both hands of a provider. It's very invasive. So, he was trying to place a Foley bulb in this girl. And, she kept telling him to stop and he didn't stop. And they* [the family] *refused to let him back in the room* (Nurse 14).

As described earlier, a midwife said:

> *So, watching some of my physician colleagues who I respect and who do a really great job – cut women's bodies without their consent – I have a hard time with that. And how, do I reconcile that with the great care that I think they give the other ninety-nine percent of the time? I just don't think that anything should be done to somebody's body that they don't know about that's happening. And, I think those are the kind of things that lead to trauma for women* (Midwife 10).

A nurse described this experience:

> *…But providers aren't always good about asking consent when they do things. Like a cervical exam when they check the dilation of the cervix. It is an invasive, you know, they're putting their hands inside someone's vagina, and it is painful, especially at the beginning of labor, and, sometimes they don't always explain what they're doing, or if they are going to break someone's water in order to help further their labor induction … get things moving, sometimes they don't always ask permission from the mom. They don't say like – "Oh, this is what I want to do. These are the risks. These are the benefits." They just say – "I'm going to break the water." And like, to the nurse they'll be like – "Get me an AmniHook®" which is a little hook that, you know, would go up inside the vagina to break the*

> *bag of water. And then, the doctors, they leave. And then, the patient's like "Wait, what the heck just happened? Why am I leaking fluid?" … They don't explain anything* (Nurse 21).

A physician described this situation:

> *Some people, though, rush through that, and they like, start wheeling the patient back to the operating room, and are like, "We're going to do a C-section right now" and they're assuming they're getting verbal consent from the patient. And, all of a sudden the patient is like, "What's going on?" and they're putting caps on her, and splashing betadine on her, and she's, they're pushing her husband into another room, and all of a sudden she's in the operating room, and then the anesthesiologist is shoving an IV in her, and you have to be like, "Everybody, we have not gotten any consent from anybody yet"* (Obstetrician 24).

This category of the typology also includes painful examinations, and a nurse described this situation:

> *And, I actually I've seen … patients getting exams, and they're screaming as the provider is trying to get an exam, and they can't, because it's so uncomfortable. At the time, like you don't think any better cause you're thinking, well, they came in because they think they're in labor. We need to check their cervix, and that's what we need to do … when they tell us, "Stop. Stop. Stop. It hurts. It hurts." And the provider keeps going just because they need to get that exam, and they're not thinking … they're doing anything wrong because they're doing what they have to...* (Nurse 19).

Refusing to provide pain relief also is included in this category of the typology, and this previously presented example from a midwife describes a patient who was not given pain medication for an episiotomy:

> *Physician came into the room … she verbalizes she didn't realize that the patient didn't have an epidural. But, decided to do a vacuum, and just cut an episiotomy without telling the patient what was happening, and not "realizing" that the patient was unmedicated. And,* ***that*** *was* ***pretty*** *traumatic for that patient. [voice is almost a whisper] And, a nurse I worked with* ***still*** *talks about that experience and how traumatic that was for* ***her*** *to see that happen to a woman. And then, certainly as a midwife, like a patient is trusting* ***me*** *when I'm calling in a physician, that they're going to--It's needed-- and they're going to take good care of them, and then when something like that happens you end up just feeling like you're participating in it* (Midwife 28)

A physician described a situation where her non-English-speaking patient did not receive her pain medication as prescribed:

> *We have patients who are Nepali. There are patients who are Mexicans. There are patients who are Arabic … and it's not so much that they were physically harmed … But it's just … a lot of that emotional trauma of the nurses, you know, were disrespectful and … it's that whole perception of [drops voice] "I don't want to deal with them" … as in like "We don't communicate with them the way we would normally do it with an English-speaking person." And, I know personally I've experienced this with a nurse in the room talking to the patient, and I'm there and I get on the [blue translator] phone and she's like … "do you mind asking her this?" and "do you mind asking her that?" Because I had brought up … she's been in pain and she hasn't been getting her medicine. And clearly she had some pain medicine ordered, but she wasn't getting them. So, it was almost like it took a physician to tell them – "You need to give the medicine." But I think it's because they're really not directly communicating with them … And, it's a lot of emotional trauma, in that sense, where some mistreatment, labeling of patients* (Family Physician 26).

Other participants described providers who did not introduce themselves or explain what they were going to do prior to initiating invasive examinations:

> *Sometimes they're talking to a med student, teaching while they're doing exams and stuff. And, the patient is like – "Wait. What?" and like – "Your hands are inside me. You didn't even say who you are." They don't introduce themselves* (Nurse 21).

Another nurse described this situation:

> *Once I had a dad … tell the doctor to get his hands out of his wife until he tells the wife what's going on. 'Cause he knows the doctor woke up-- it was in the middle of the night-- he just came in and was just checking all his patients before he goes back to sleep. So, literally that's what he was doing. Not having conversations, just going in the rooms, and checking patients and leaving again. And, we're all like – "That's disgusting"* (Nurse 19).

Stigma and Discrimination. This category and the participant descriptions that mapped onto it were the second most common type of mistreatment. One physician and one nurse described subtle differences in the way patients are talked about during transitions of care. The physician said:

> *When the patients have an attitude about something it comes off differently if they're one race versus another race. You know, it's like a Black patient who has an attitude is like, "Oh, God [strained voice] she's so horrible, don't go in that room" versus we have White patients all the time … we have someone here right now who wants us to deliver her at thirty-four weeks. And it was like, "I can't believe you're not delivering me" and she's thirty-four weeks, which is why we're not delivering her – she's only three centimeters, you know. But it's like, the descriptive word for her is "needy" you know, [laughs] versus like "attitude"* (Obstetrician 27).

The nurse who described how some staff avoided patient rooms of women of color or patients who do not speak English said:

> *The disparity, especially for Black women, women of color in general, immigrant women, if there's any kind of a language barrier, teenagers, any level of marginalization, and compound marginalizations, are gonna make* ***that*** *the norm [nurses avoiding patient room]. And, it makes me very, it's very frustrating. I think if there was a fly on the wall for report, even at the beginning of shifts, you can just kind of tell which patients the nurses care about more and which ones are just a "pain in the ass" or like, "not worth the time"* (Nurse 03).

This nurse continued:

> *With my limited time and energy, I try to do what I can … [for] those who have the least likely, have less support. If I see that I don't like the way their care providers are treating them … I'll say what I can, but there's the politics of that too. So instead, I'll just try to spend more time and [sighs]. I think the terrible irony of it is that the very patients who need a lot of TLC, for whatever reason, for some history of trauma that maybe she had, for lack of support, for lack of coping skills and inability to get through labor, she's gonna get labeled as "difficult." And, she's the one who needs the most care. And, so instead, people [nurses] avoid her. And so, I have walked into so many shifts and they're like … we'll assign [this nurse] to her." But I have my buttons, too, and I'm not proud of them. But my burnout right now is especially high, I think, with [patients with] addiction, and I'm not proud of it. It's really hard to handle …* (Nurse 03).

A physician also described the language used at care hand-off as prejudicial towards some patients:

> *It sounds weird, but it's just … like people's tone when they're talking about people … Versus it being this like, "Oh, she's like a G3P2" [speaks in official-sounding crisp voice] and it's like oh, [heavy sigh and harsher sounding voice] "this lady doesn't need to have any more kids…"* (Obstetrician 27).

Two midwives described two situations where providers underestimated the serious medical conditions of their patients of color when they sought emergency care. The first one said:

> *We had an example of an African-American woman who was readmitted for severe postpartum preeclampsia and had -- not on our labor unit, on a medical unit -- but had pretty terrible nursing care where her pain wasn't acknowledged. The concern she expressed wasn't acknowledged and she wasn't even getting the standard of care, in terms of checking her vital signs and monitoring … They hadn't seen that kind of thing come up in White patients' situations. Yeah, so I think there can be an element of not believing people* (Midwife 28).

And the second midwife said:

> *The two patients that we've had, that have had really bad, concerning postpartum depression who didn't receive adequate treatment were both Black … They were sent home from the ER with postpartum preeclampsia that they could've died from … Two of them! And, that's the number one cause of maternal mortality … cardiovascular type events* (Midwife 29).

Lastly, one participant described her own behavior towards an "outpatient clinic patient" which another participant said is "code for Black" (Nurse 03):

> *One of the biggest things that makes it difficult, are the patients that come in and automatically … they're very nasty and … it's really hard to take care of a person who's talking down to you or is like swearing at you. And, they automatically have this idea that you're going to do harm to them, and they're looking for you to do something wrong. So you're sort of like, "So, why did you come to us if you think that…?" But you can't say that to them … We get quite a few of them. And it's really hard to, those ones are really hard, because it's like no matter what, they're going to not have a good experience because they're already setting themselves up and us up for failure.*
>
> *I hate to classify it as one, but it's usually our outpatient clinic patients that come in. We had one recently who … was just not a nice person. And, the residents bend over backwards for these patients, and let them do anything they want as long as they, you know, we needed to look at her baby [on the fetal monitor]. And, I'm like, but we can't do it if she's refusing to let us take care of her … They're like parents that are looking for you to fail, or looking for, I don't want to say looking for that lawsuit, but, kind of in those terms and it makes it really hard to do your job. So, in those situations sometimes* ***less*** *is better* [less time spent going into the patient room]. *A lot of those ones we try to keep them with the same nurse through multiple shifts if they find one that they're able to bond with. A lot of times it's sending their provider in* [to the patient's room] *to do it* (Nurse 19).

Asked about birth trauma in different patient racial or ethnic groups, this participant continued:

> *I would think that the White population … seems to be the ones that tend to be a little more sensitive and have, because they come in with the birth plans and this whole setup, ideal expectation, "this is what my delivery is going to be" … There's your African-American population, they have more of a hard, not all of them, but, like, most of them have more of a like a hard shell, whereas they get more angry at the social aspect that you're not going to let my sister, my cousin, and my mom, and my boyfriend in the room for delivery. More so, than the fact that, "Oh, my baby is having decels," there's this more of "family that is already here" as opposed to the family that's inside. It's kind of like a, in that situation, I feel like they have less trauma* (Nurse 19).

Poor Rapport Between Women and Providers. This category includes ineffective communication, lack of supportive care and lack of autonomy. One obstetrician described completing a cesarean section on a patient whose epidural pain medication catheter had come out, but the anesthesiologist refused to believe the pain when she said she was feeling pain.

> *We don't listen to our patients …So, in the middle of her C-section she started having terrible pain and anesthesia [resident] was giving her more meds and stuff and … I was like "call your attending," you know, "… she's in excruciating pain. She's moving her legs." … So he called the attending and the attending came in and then he [the resident] was like "Oh, she's just having some like, pain with motion." And, I was like, "No, that's not what's happening. Literally when I touch her, she's in excruciating pain and she's moving her legs, and she had a spinal, and she shouldn't be moving her legs" …. But in any case, she was crying, and I just finished as fast as I could because I was like, "Do you want to put her to sleep? Do whatever you need to do to make her comfortable." And, they're just like, "She's fine, she's fine." And it turned out that her epidural catheter had actually fallen out of her back. And so she actually had essentially an un-anaesthetized [pause] C-section. Like some of the medicine was working at first because it was still in there, but then once it wore off, like no more was going into her back. And then, I saw her the next day and she was just like, "I told everyone that something wrong" and I was like, "I know, I feel so terrible" 'cause she's from Jamaica and she had terrible experiences in Jamaica. So, then when she came here, she was kind of like, "Well, maybe things will be better." And, she was like, "It was horrible. It was the worst thing I've ever experienced." Nobody would listen to her saying "Ow, ow, ow, ow, it hurts"* (Obstetrician 27).

This category includes language or translation issues, and an obstetrician pointed out ongoing issues with care for patients who do not speak English:

> *We have a large patient population who, English is not their primary language ... Think how scary that is for them that we don't have – for probably ninety-nine percent of our deliveries – we don't have in-the-room interpreters. They're having IVs, everything, done to them, and we don't – I don't agree with this –not using the phone interpreter for most of what we're doing to them. The nurse is coming in the room, putting an IV in them, and they'll do an initial phone interpreter and get permission, but then they just keep doing things, and that person is sitting there, like helpless. There has to be some level of, like, I would be traumatized if I was in another country, and I just got like one or two phone interpretations, and then they were like doing stuff* (Obstetrician 24).

A nurse said that using the translation phone with non-English speaking patients was seen as a "time-suck," leading many nurses to avoid interacting with non-English-speaking patients. Her description reinforces the physician's description, mapped onto the previous category, in which a patient did not receive her pain medications until the physician intervened:

> *Those [patients] require more work. And it's not that it's difficult work. But when your staffing ratios are terrible, it's harder…it's a time-suck. And you have other patients … they're not as interested in taking care of those patients* (Nurse 16).

Asked what contributes to difficult relations between nurses and patients a nurse said patients' lack of childbirth preparation and nurse burnout can both be factors:

> *Probably a lot of things. Probably a lot of burnout, individual personalities, individual days. Everybody has terrible days. And even I, who pride myself on treating every patient well, as best I can, get irritated with individual patients and don't want to be all "nice" you know. And, I think I find that that's a spiraling issue. Because the patients that are mean to the providers, then get treated coldly back, and then they're the ones who are more vocal about hating the providers. And, then it's just this big old terrible spiral that gets passed along for three days. And, then they sign out AMA and scream at you on the way out…If they don't treat us with respect and/or respect our expertise. If they want to question our expertise, that's fine. We can have a conversation about it. But I get really frustrated with the patients who just likely don't know* ***anything*** **(**Nurse 09).

Verbal Abuse. This theme includes harsh language, judgmental or accusatory comments, threats of withholding treatment, threats of poor outcomes, and blaming patients for poor outcomes. One physician described this situation with one of her patients:

> *The anesthesiologist yelled at her cause she couldn't sit still and told her if she couldn't stop moving, she wouldn't get an epidural and walked out of the room* (Obstetrician 27).

Midwives described seeing their patients blamed for poor outcomes. For example, one said:

> *Women get thrown that all the time [endangering the baby] when it's not really- the baby is not in danger. But everybody wants to like, and, even I watch it happen, well-intentioned nurses and providers that are like – "Oh, that mother is, she's just being so selfish"* (Midwife 8).

Another described the challenges when midwifery patients need transfer to physician care, and patients are judged for their choices:

> *Some of the things our patients may want … for example, going postdates. And we do that in an evidence-based way. We do that reviewing all the potential risks with the woman and allowing her to make the decision to do that. And then, if a woman chooses to do that, something goes wrong, a physician has to get involved in intervening, I see sometimes they tend to respond do it like it's her fault for choosing to do this. She shouldn't have gone past the due date. That it's not safe. And overall you can't say that that's the case. … that's a risk in* ***some*** *situations and it happened to occur in her situation. So, sometimes I see the mentality like if the woman had just followed what we said, these untoward things wouldn't have happened … "It's her fault for just not following what we said she should have done"* (Midwife 28).

One nurse described her own behavior threatening a patient with a poor infant outcome:

> *I mean, sometimes you've got to be a little rough. I don't like to do that. We're not really supposed to, but sometimes that's what you got to tell them. I mean, I've told patients, like, "If you do this, if you leave against our medical advice, your baby's going to die"* (Nurse 19).

Health System Conditions and Constraints. This category includes the facility culture as well as limitations such as policies or staffing constraints. Participants described how some providers mocked patients who had birth plans or whose birth preferences were outside what some

nurses considered to be mainstream. For example, one heard co-workers say: *Yeah, she has a birth plan so we're taking bets on how soon it's going to be before she's sectioned* (Nurse 06).

Participants said hospital policies had differential effects on groups of patients:

> *The visitor policy – I don't think is always culturally acceptable to especially our Black families that tend to want lots more of their family members there … some of that is distrust of the medical system and wanting to make sure things are safer. So, I think there could be situations where people are being asked to leave just because they're over the number of people that are allowed. That can be tricky, but … that person wants those family members involved in hearing the [medical care] conversation and being part of it* (Midwife 13).

One obstetrician said her patients of color often feel singled out by the hospital drug screening policy, which mandates screening if they miss a certain number of prenatal appointments, which her patients often do.

> *… But, some of it also … has to do with people's socioeconomic status too, because, for example, here they will do a urine drug screen on anyone who has had less than five [prenatal] visits. Now, I have several [non-white] patients who've had less than five visits just because like, they just can't get to their visits. They'll have visits scheduled; they won't come. And I don't think they need drug screens. They just need transportation* (Obstetrician 27).

She described how a teenage patient was drug-tested despite having no other risk factors besides missing prenatal appointments:

> *So there are things that are kind of like, I think inherently set up in a way that **feels** biased … because that's actually a rule. Like I actually told them once, one of my patients didn't need it. And they were like, "It's a rule, if we don't do it on the patient, we have to do it on the baby" … I had a patient who was Hispanic they wanted to do drug screen on. She never even had an alcoholic beverage in her life. I was like, "guys?" But it's a policy, and anything that's a policy has to be done … I talked to the patient and they were just like, "Why do you think I do drugs?"* (Obstetrician 27).

Physical Abuse. This category includes use of force, and just one participant description mapped onto this category:

One of the nurses that was a charge nurse who's worked there for maybe twenty-five years pushed me out of the way and grabbed the woman's leg, and was in her face and screaming, "You're not pushing, you're not pushing, you need to listen to us." And, she was pushing ***really*** *well. She was doing* ***everything*** *she could, and I couldn't help but think, "what is this woman [the charge nurse] thinking that suddenly we weren't doing right by her, but if a charge nurse came in, and grabbed her, and was* ***meaner*** *to her then maybe she could've done it right?" I don't know* (Nurse 04).

5.0 Discussion

The qualitative research findings reported in this dissertation contribute to the existing literature on birth trauma and maternity care outcomes by examining the experiences and perceptions of maternity healthcare professionals related to patient birth trauma. Using a grounded theory approach framed within the Social Ecological Model, this research expanded the scope of birth trauma research to include provider experiences, as well as their descriptions of contextual factors and health system drivers that potentially contribute to trauma symptoms among their patients, following cases of obstetric emergency as well as uncomplicated deliveries. This research demonstrated the widely varied connotations and definitions of the phrase "birth trauma" among providers, noting that maternity care providers use this phrase to mean different things, and those differences are not always consistent across provider groups. Also, this study found that maternity care providers' descriptions of trauma-associated factors at birth closely mirror patient descriptions. Further, the research findings describe potential psychological health impacts to maternity care providers themselves related to regular exposure to patient birth trauma, and it is worth noting that some contextual factors that participants associated with increased risk of **patient** birth trauma are the same factors that interfered with **provider** ability to manage their own responses to birth trauma. Lastly, this study includes an additional content analysis that mapped participants' descriptions of birth trauma onto an accepted typology of patient mistreatment and found that many provider descriptions of patient birth trauma experiences can be categorized into six of the seven types of mistreatment. This is the first study to undertake this type of analysis using statements by maternity healthcare professionals, and the first in which maternity care

providers themselves connect birth trauma to mistreatment, mirroring recent research with patients that also describes connections between birth trauma and mistreatment.

This chapter discusses four key findings from this dissertation research: 1) the potential negative psychological outcomes for maternity care providers; 2) the contextual factors and system drivers that participants associated with patient experiences of birth trauma and with provider experiences of negative emotional outcomes; 3) the widely varied connotations and definitions of the phrase "birth trauma" described by participants, and 4) participant descriptions connecting birth trauma to disrespect, mistreatment and racism. This section also addresses the limitations of the study and the implications for future research and practice.

5.1 Potential Negative Effects on Providers

Study participants' descriptions of their experiences of patient birth trauma included elements of potential secondary trauma, compassion fatigue, burnout and moral distress. This is one of only a few studies to explore providers' descriptions of their own response to patient birth trauma experiences, although participant assessment for these conditions was not included in the study design for this research.

5.1.1 Secondary Trauma

Findings in this research included descriptions of potential secondary trauma across all three groups of maternity care providers: nurses, midwives and physicians; and these findings are consistent with recently emerging research into secondary trauma among maternity care providers.

For example, a 2012 study of 464 labor and delivery nurses reported that 35% had symptoms of secondary trauma,[42] and a 2015 study of 473 certified midwives found that 29% had symptoms of secondary trauma while 35% met diagnostic criteria for posttraumatic stress disorder (PTSD).[103] A 2017 on-line survey among Swedish obstetricians (n=706) and midwives (n=1459) reported that 15% of participants in both groups experienced posttraumatic symptoms, while 7% of obstetricians and 5% of midwives met diagnostic criteria for PTSD.[150]

Participants in this research described having patient traumatic birth experiences seared into their memory and affecting the way they provide patient care, a finding that is consistent with previous qualitative research.[42,80,103,136,151–153] For example, a 2017 meta-ethnography of 11 studies explored common themes distilled from nurses' and midwives' descriptions of exposure to patient birth trauma, including 1) "feeling the chaos;" 2) powerless, responsible and a failure;" 3) "it adds another scar to my soul," and 4) "find a way to deal with it."[80(p4184)] and these themes resonate with participant descriptions in this research, which included experiencing chaos, feeling powerless and struggling to cope with their own response to birth trauma.

Although building trusting relationships with patients is considered to be necessary and positive element of medical practice, the meta-ethnography highlighted findings from previous qualitative research showing that higher levels of provider empathy for patients can put providers at higher risk for secondary trauma.[80,154–156] For example, a 2010 literature review concluded that the "high degree of empathic identification" in the midwifery care model puts midwives at risk of secondary traumatic stress when birth becomes traumatic.[156] Findings from this dissertation research reinforce that idea, as some participants in this research described experiencing potential secondary traumatic symptoms in situations where they empathized with a particular patient. Midwives sometimes described the long-term impact of birth trauma on their patients, whom they

sometimes cared for during subsequent pregnancies. It is worth noting that midwives and some family physicians frequently commented on their own awareness and acceptance of the emotional impact of childbirth on their patients' lives. Some described understanding this emotional dimension as within the scope of their practice as midwives or family physicians. However, some described this awareness as outside the norms of maternity care, particularly in the hospital setting.

As empathy is an important element in high-quality health care, it is critical build support mechanisms into the maternity care environment and larger health system in which providers practice.[80] The meta-ethnography described "workplace culture" as an important factor in how providers respond to and cope with traumatic events,[80] which is salient to these research findings, since nurses in particular described a work environment of high anxiety that lacked structured opportunities for self-care after traumatic events and where nursing turnover was high. Participants from all groups also commented on the lack of opportunity to process their own responses to physically traumatic births, although most said they had worked out informal networks that they could call upon when necessary. Although research in to coping with birth trauma is minimal, research has reported that midwives and nurses use reflection, journaling, debriefing and avoidance.[80,157] One physician, for example, described specifically changing care provision because of an early negative experience with forceps delivery.

5.1.2 Compassion Fatigue and Burnout

As described earlier in **Section 1.2.5 Negative Consequences for Healthcare Professionals,** compassion fatigue and "burnout" are both terms for emotional exhaustion that are sometimes used interchangeably. Compassion fatigue, however, is defined as "the diminished capacity of a health professional when experiencing distress at knowing about or witnessing the

suffering of their patients and clients,"[99(p6)] while burnout is conceptualized as "more related to the cumulative effects of stressors of a job, particularly when one believes that there are not enough resources to meet the needs of the job.[98(p560)] Both concepts are relevant to the findings of this dissertation research, particularly for nurses, who described experiencing both compassion fatigue and burnout.

Very little research has investigated burnout or compassion fatigue among maternity care nurses, although research with nurses in other specializations such as intensive care and oncology on these topics has continued to grow in the recent years.[99,158–160] In the current research, nurses said that lack of preparation and coping skills for their own emotional responses to birth trauma and lack of structured support in their work environment, especially when they first started working at their hospital, contribute to burnout and potential compassion fatigue. Similar findings have been reported in the oncology nursing research, including two recent studies published in 2019. One that found oncology nurses were particularly vulnerable to compassion fatigue early in their careers and that they found few resources to assist them in coping with their bereavement after patient loss.[159] The second study found that ongoing organizational support and intervention when nurses experiences poor patient outcomes could reduce compassion fatigue among pediatric oncology nurses.[160]

It is well recognized that burnout is not healthy for healthcare professionals and can contribute to a number of negative outcomes, including neglect of family commitments, dysfunctional relationships, mental health disorders and self-harm behaviors.[98,99,161] Burnout and compassion fatigue also can compromise care quality by hindering a provider's ability to provide compassionate care for suffering patients[162] and can contribute to failure to recognize patient distress.[163] This is particularly relevant to birth trauma because prior research describing patient

experiences has consistently included patient reports of feeling ignored by their providers as contributing to their trauma[28,43,54,164] or their feelings of being mistreated.[127]

Nurses in this study cited patient volume, patient acuity and inadequate staffing levels as contributing to their feelings of burnout. Several said their hospital rarely met guidelines set by the Association for Women's Health, Obstetric and Neonatal Nurses (AWHONN) for nursing staffing levels and that this negatively affected their ability to provide care and contributed to burnout. AWHONN guidelines state "nurses in labor and delivery units should have only one patient to care for if the woman is having her labor induced or chooses a low-tech birth without pain medication."[165] Participant assertions that patient volume contributes to burnout is somewhat supported in the literature, although no research has examined patient volume in maternity care. A 2016 literature review of 25 studies exploring burnout among intensive care unit professionals found that workload and time pressures are commonly identified factors contributing to burnout, along with working environment, organizational factors and relations with colleagues[166] Also, among nurses working with surgical patients, one study found that each additional patient assigned to a nurse was associated with increases in nurse burnout and job dissatisfaction.[163] The research study also found that each additional patient assigned to a nurse was associated with increased risk of poor patient outcomes as well as, a finding which also is relevant to birth trauma.[163]

Labor and delivery nurses are the front-line in maternity care, tending to women at the bedside, and often serving as the single constant caregiver throughout the delivery. Nurses' descriptions of "running around like a chicken with your head cut off" and of feeling resentful towards laboring women who want their time and attention are clearly problematic, given their role in providing continuous bed-side care for laboring women. A health system that aims to provide high-quality maternity care needs the full and enthusiastic participation of its bedside

nurses in providing compassionate and responsive care at birth. However, burnout among hospital nursing staff is a common concern. For example, a five-site study of adult acute-care hospital that included Pennsylvania, along with two sites in Canada and sites in England and Scotland found that dissatisfaction, burnout and concerns with care quality were common.[167] Key factors associated with nursing burnout were organizational and managerial support, suggesting that lower quality of care and high levels of burnout both could be related to underlying working conditions.[167]

Physicians and midwives were less likely to associate birth trauma with burnout, but they acknowledged the emotional toll maternity care takes on providers, both professionally and personally.

Very little research has explored how to mitigate burnout in maternity care nursing, but a range of interventions have been implemented with nurses in other subspecialties, and results tend to be promising. For example, one study found that nurses providing end-of-life nursing care benefited from small-group discussions and opportunities to debrief their nursing experiences away from the nursing unit.[168] Another study used self-care wellness plans that included educational programming offered twice a month and art activities using poetry and painting to help new nurses working in a cancer care center to process the emotions of their work.[169] A 2019 literature review of 30 studies exploring ways to prevent or decrease burnout among nurses working in hospital environments reported a range of interventions that included resiliency training, meditation training, yoga practice, listening to audio-recorded mental exercises for 10 minutes a day, reiki and therapeutic massage, training in communication skills, and 12 hours of weekly exercise.[170] That study noted that most interventions had some measure of success but noted that burnout prevalence and research into it have increased steadily in the last 10 years.

5.1.3 Moral Distress

Participants also described situations of potential moral distress, when they felt they or other providers failed to provide high-quality maternity care to patients because of systemic constraints or when the behavior of other providers compromised their relationship to the patient or involved unconsented procedures. Some raised objections and voiced their concerns, and some described their attempts to change the behavior of other providers by asking the patient questions in front of the provider and attempting to verify consent prior to procedures.

Although moral distress has been researched specifically in maternity care, these findings are consistent with descriptions of moral distress in other care disciplines. Research into moral distress has gained attention in a wide range of healthcare settings, including chronic care, intensive care units, emergency departments, pharmacy settings, and behavioral health care settings.[171,172] Factors contributing to moral distress can be related to individual characteristics, site-specific systems and work environments, and other broader influences. Healthcare providers who experience moral distress often have to choose between withdrawing, challenging the situation or leaving their positions,[172] and some participants in this study described those responses as well. However, research in other health care specialties shows that addressing causes of moral distress can rarely be accomplished on an individual basis but instead requires systemic changes to address the institutional constraints.[101,102,171,172] Systemic constraints to care provision may be particularly applicable to healthcare professionals working in high-volume maternity care settings. Interventions that have been successful in other settings in addressing moral distress include education in ethical understanding, skills and communication, providing morally sensitive mechanisms of support, engaging individuals in critical self-reflection, using storytelling, providing mentorship, and establishing a supportive organizational culture.[172]

When maternity healthcare professionals experience burnout, compassion fatigue, burnout or moral distress, they may experience other negative health effects, and they may be unable to provide high-quality maternity care. Additionally, these negative outcomes may cause maternity providers to leave their positions: nurses may transfer to other subspecialties or other work sites; midwives and physicians may cease providing obstetric care and work only with gynecology. Nurses and midwives in this research connected patient birth trauma experiences with the risk of leaving maternity care. This is supported in the literature as well, as multiple studies cite burnout as a factor in nursing staff turnover.[42,80,98,99,173] The 2017 meta-ethnography reported that in some cases maternity care providers were unable to recover from their experiences of patient birth trauma and subsequently left practice,[80,93,96] and a 2017 study of 601 Australian midwives found that regular exposure to traumatic births was associated with feelings of guilt and intentions to leave practice.[174]

This is concerning in the current context of declining numbers of maternity care providers, particularly in rural areas. A 2018 March of Dimes report notes that more than five million U.S. women live in "maternity care deserts" where there is no hospital offering obstetric care.[175] Additionally, because the hospitals included in this research are training hospitals, resident trainees, in both obstetrics and family medicine, and nursing trainees might experience burnout, compassion fatigue, or moral distress, which could affect their decision to include obstetric care in future practice. Given the ongoing shortages of nurses and obstetric providers, ensuring that healthcare professionals can cope with the emotional strain of their work is key to maintaining high quality maternity care services. Developing maternity care systems that support providers and help them avoid negative health outcomes because of their regular exposure to birth trauma is also key to provider retention and satisfaction.

5.2 Contextual Factors and System Drivers

Discussion of the potential negative impact on maternity healthcare providers leads naturally to discussion of the contextual factors and system drivers that participants described as contributing to patient experiences of birth trauma. The results described in **Section 4.2 System Drivers Related to Birth Trauma** provide valuable insight into the contextual factors that maternity healthcare professionals see as affecting their patients' maternity health outcomes as well as their own health in relation to providing maternity care. Similarly to patient reports described in the literature,[11,112,118] participants in this study noted that patients can experience trauma in the absence of obstetric emergencies. The contextual factors that participants described as contributing to birth trauma included lack of provider training in responding to patient emotional needs, lack of structure or time for providers to process their own emotional response to trauma, and inadequate nursing staff levels. Other contextual factors that participants associated with patient birth trauma included lack of patient preparation prior to delivery, lack of continuity of care, lack of patient-centered care, lack of anticipatory guidance, lack of informed consent and poor communication with providers. Many of these factors have been elaborated in the literature from the patient perspective as factors that contribute to patient birth trauma, although not exactly with the same terminology.[22,28,38,43,45,54,122,164]

For example, research with patients often finds that patients describe not understanding why they have to have certain procedure understanding or not understanding what is happening to them,[45] which the participants in this research also described, citing lack of birth preparation or the lack opportunity for providers to give patients anticipatory guidance. In the literature patients describe having a physician they have not previously met take over their care at a critical point, (described by maternity provider participants in this study as lack of continuity of care) or feeling

like no one had time to explain things to them (which providers described as lack of patient-centered care). The research focusing on patients also includes descriptions of patients saying that they did not fully consent to procedures, that their relationship with their providers was poor or that communication with providers was poor, all of which were also described by participants in this research. Thus, participants' descriptions in this research corroborate patient accounts that some elements of "normal" maternity care can be potentially traumatizing for patients.[45,54,120,122] Additionally, these findings should be considered within the context of the hierarchy of power in health systems that privileges clinicians as "experts" and often discounts patients' lived experiences. Some participants described an awareness of power dynamics and how those power dynamics can influence patient-provider interactions, while others did not. These findings add to the research literature on birth trauma, furnishing readers with a provider perspective that overlaps with patient perspectives on the ways that healthcare interactions can contribute to birth trauma.

Nurses, midwives and physicians all described nursing staffing levels as inadequate, pointing out that hospital practice does not adhere to guidelines from the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) for one-to-one nursing for laboring patients. Many commented on the potential role the lack of one-on-one nursing could play in patients feeling more fear, receiving fewer or less clear explanations in the course of care, receiving less anticipatory guidance or preparation while in labor, and receiving less continuous general support from their nurse. Although nurses regularly commented that they receive plenty of support in emergency situations, they said they often lacked time to provide high-quality care for patients experiencing low-risk, uncomplicated deliveries. In the literature, patients also say that lack of support from medical staff was a factor in their experience of trauma.[45] Additionally, nurses connected the inadequate staffing levels to nurse burnout and high rates of turnover, both of which

are concerns for individual nurses, for the health system and for their potential contribution to poor patient experiences which in turn compromise high-quality care and can contribute to birth trauma, as described above.

Further, it is noteworthy that in this research, some of the contextual factors that participants associated with increased risk of **patient** birth trauma are the same factors that interfered with **provider** ability to manage their own responses to birth trauma. Participants pointed to lack of provider training in responding to patient emotional needs, lack of structure or time for providers to process their own emotional response to trauma, and inadequate nursing staff as contributing to poor outcomes for both patients AND providers. The fact that the same contextual factors were identified as contributing to poor patient outcomes and to negative effects on providers, only further reinforces the importance of addressing those factors. They are contextual factors related to the care environment in which birth takes place, and they are potentially system-wide. They therefore will need to be addressed at the systems level.

5.3 Wide Variation in Definitions and Connotations of "Birth Trauma"

This study is the first to ask maternity healthcare professionals to describe their conceptualizations of "birth trauma," and the descriptions they gave varied widely. Participant descriptions, presented in Section 4.3, range from ideas that birth trauma is "slang for bad experience" and thus more closely associated with patient satisfaction issues, to conceptions of birth trauma as related to unconsented procedures and patient mistreatment. Separate from these definitions is the use of "birth trauma" to connote mistreatment and abuse. These findings of such

wide variation in participant connotations of birth trauma demonstrate clearly that different providers use this phrase to mean different things.

Although research into the differences in connotations of the phrase "birth trauma" has not specifically explored these different connotations, the birth trauma research includes an ongoing evolution of both the definition of "birth trauma" and the phrasing used for it. As described in the literature presented earlier in this dissertation the phrase birth trauma originally connoted only physical injury to mother or infant.[107] Early research into traumatic response to birth events often included an underlying assumption that physical trauma was required to produce a traumatic response to birth until as recently as 2002, when a Swedish study found that patients experiencing "normal vaginal delivery" accounted for the highest number experiencing traumatic symptoms after birth.[118] After this, the evolution of the phrase "birth trauma" continued with Beck's book-length "Birth Trauma: In the Eye of Beholder," which advocated adopting the patient's perspective in conceptualizing birth trauma.[28] However, it is clear from the responses of participants in this research that a wide range of conceptualizations of birth trauma remain active among maternity healthcare professionals.

Some of the more narrow conceptualizations of birth trauma endorsed by participants in this research do not align with the conceptualizations of birth trauma emerging in the research literature describing patients' experiences.[45,88,122] This misalignment of provider and patient conceptualizations of birth trauma is important, because healthcare providers' understanding of their patients' healthcare values and preferences is an important element of patient-centered care. For example, the Institute of Medicine defines "patient-centered care" as "providing care that is respectful of, and responsive to, individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions."[176(p40)]

While these research findings of such wide variation in healthcare providers' connotations and definitions of birth trauma might seem an obvious or semantic point, it helps to explain why conversations about addressing birth trauma in health systems can be difficult; people often are talking about very different things. For example, if one group, comprised of patient advocates, people who give birth, and some nurses, midwives and physicians, uses the phrase "birth trauma" to discuss unconsented procedures and patient mistreatment, while another group, comprised of other nurses, midwives, physicians and perhaps hospital administrators, believes the conversation about "birth trauma" is about "any bad experience," the conversation will break down because of their lack of shared meaning for the phrase "birth trauma." For the first group "birth trauma" is a euphemism to describe unacceptable situations that go against ethical care guidelines, while for the second group "birth trauma" is an overly dramatic or even melodramatic term used to exaggerate minor patient dissatisfaction. With such a lack of common meaning, conversations about how to prevent birth trauma, how to address birth trauma, and how to treat birth trauma, can be charged and unproductive. Dialogue cannot and will not develop, and trauma will not be addressed adequately for patients or for providers.

5.4 Connecting Birth Trauma to Disrespect and Mistreatment

The description in the previous section about the wide variation in participants' connotations of birth trauma leads to a discussion about the final key finding of this research study: participants connected patient birth trauma to disrespect and mistreatment, including discrimination and racism. In this study, some participant descriptions of birth trauma closely mirror patient descriptions in the early literature of hostile or uncaring treatment by healthcare

personnel,[67,110,111] and lack of consent,[110] as well as descriptions in the recently published research literature of disrespect, mistreatment, discrimination and racism.[122,127,132] The additional analysis mapping participant descriptions onto the Bohren et al. Typology of Mistreatment of Women During Childbirth[125] points to overlap between experiences of birth trauma and mistreatment. This analysis was patterned after Beck's 2016 secondary analysis mapping patient narratives onto the Bohren et al. typology of mistreatment,[126] and is the first study to complete this kind of analysis using maternity healthcare professionals' descriptions of birth trauma. The findings of overlap between birth trauma descriptions and mistreatment are consistent with the Beck analysis[126] and with a 2017 study titled "Women's descriptions of childbirth trauma relating to provider actions and interactions."[122] That 2017 research, based on patient descriptions, reported that 66% of respondents described care provider actions or interactions as the traumatic element in their experience.

More recently a study published in early 2019 explored inequity and mistreatment during pregnancy and childbirth in the United States, asking specifically about mistreatment rather than birth trauma, and reporting that one in six women (17%) reported experiencing some type of mistreatment, including loss of autonomy, being shouted at, scolded or threatened or being ignored.[127] Another recent study has explored measures of mistreatment at birth.[177]

This dissertation research is not the first to find overlap between participant descriptions of birth trauma and mistreatment; however, it is the first study in which the overlap between birth trauma and mistreatment is described by maternity healthcare professionals. This is useful because patient descriptions of their experiences during labor and delivery are sometimes discounted because of a sense that women in labor might not accurately remember the interactions, despite research showing that women's memories of birth are remarkably stable over time.[90,91] Other

previously published literature on birth trauma has included patient descriptions of interactions with maternity care personnel that raised questions about lack of individualized or patient-centered care, and potential disrespect or mistreatment,[28,29,31,40,43,45,52,75,120,178] although not all studies used the words "disrespect" or "mistreatment." Similarly, participants in this study were not asked about mistreatment; they were asked about "birth trauma." In their responses, participants did not use the terms "disrespect" and "mistreatment," but their descriptions of patient experiences resonate with patient descriptions of mistreatment in previous research. As noted earlier, for some participants "birth trauma" is a euphemism used to connote unacceptable situations that perhaps cannot be directly.

Emerging information about patient mistreatment is not unique to maternity care.[179] Research has explored potentially compromised care in a variety of care settings,[158,180–182] and the relationship between burnout, compassion fatigue and quality of care remains a source of ongoing research exploration.[183–185] Participant descriptions of mistreatment as an element contributing to birth trauma, although they provide insight into the problem, are alarming and require attention. Recent research has developed focused tools for measuring respectful maternity care, including the Mothers Autonomy in Decision Making scale (MADM),[186] the Mothers on Respect Index (MOR)[187] and the Mistreatment by Care Providers in Childbirth Indicators.[127]

The discrimination described and, in one case, displayed, by study participants also is alarming and require attention through both research and intervention. Participants described situations in which patients were treated differently because of race, ethnicity or lack of English language skills. These results are similar to previous reports in the literature about women of color's experiences of discriminatory maternity care.[132,133] This study adds to a growing body of research about this important health disparity, and it is the first to include maternity healthcare

professionals' descriptions of discriminatory behavior. Additional research is warranted into discriminatory behavior in maternity care settings, particularly given the stark racial differences in maternal health outcomes, both nationally and locally where this research was completed. Discrimination in maternity care systems has been shown clearly in the literature to contribute to poor outcomes.

As touched upon earlier in this discussion, it is important to consider these findings within the context of the hierarchy and power structure of the healthcare system. Within that system different power structures inform and contain the interactions of individuals who occupy different roles and different levels of privilege or oppression within that system. The maternity healthcare professionals who participated in this study interact with each other and with patients within a medical hierarchy, as physicians, obstetricians, family physicians, midwives, and nurses. They also all interact with the healthcare system itself, again within the context of varying levels of privilege and power, and in many cases powerlessness. Several participants described feeling powerless in their interactions with their peers, with other types of providers, with system policies or with the larger hospital culture. Additionally, patients themselves bring different lived experiences of privilege and oppression that inform their interactions with care providers and with the healthcare system as a whole. Patient-provider interactions take place within the larger context of hospital policies and insurance coverage which can shape care and patient-provider interactions in more implicit ways, such as by dictating the amount of time available for prenatal visits and patient education. Further analysis is warranted into the power dynamics described by these research findings.

5.5 Strengths and Limitations

Several limitations are relevant to the findings of this research study. The study sample included only six physicians and would have benefited from additional physician participants to study achieve content saturation for physicians. Additional interviews with physicians may have elucidated different themes and produced different conclusions. However, in some cases physician descriptions and perceptions closely aligned with those of either midwives or nurses, suggesting that the convergence in perceptions and experiences among providers may be greater than the divergence.

A strength of the study is that it achieved thematic saturation among the midwives and the labor and delivery nurses. The midwives' responses were more homogenous, perhaps because of the unifying philosophy for midwife practice and the homogenous training. The nurses, although a much more heterogenous group in their responses, all worked at one large maternity hospital and so shared a common practice experience. However, a limitation of the research is that because the nurses all worked in the same hospital, the system conditions that they describe cannot be generalized to other maternity settings in other regions.

The maternity healthcare professionals included in this study represent a purposive sample and therefore the sample has selection bias in the sense that most participants had a stated interest in birth trauma and its management in their patients. Some participants had a stated interest in secondary trauma among maternity providers. Providers with these specific interests may differ from the general population of maternity healthcare providers in their awareness of birth trauma experiences among patients as well as their awareness of the potential impact on providers. However, this purposive sample was suitable for the exploratory study aims of this research. Additionally, several participants who were referred to the study by community recruiting partners

did not have a stated interest in birth trauma or secondary trauma. Their responses contribute breadth to the research findings and may give some insight into the experiences and perceptions of maternity care providers who do not have a particular interest in birth trauma.

This study does not include information from patient medical records or patient reports of their birth experiences that pair with participant descriptions of birth trauma. However, the study aims of exploring the experiences and perceptions of participants were achieved successfully through the participant-reported descriptions of their experiences. Obtaining the patient's description of the birth experience would not change the participants' reported perceptions and experiences.

As noted previously, maternity healthcare professional participants were not assessed for secondary trauma, burnout, compassion fatigue or depersonalization. It would be useful to complete quantitative studies in the future to assess these conditions in a representative sample of the hospital population, particularly nurses. Also, this study does not include triage staff and anesthesiology staff, two groups whose importance in setting the tenor of maternity care surfaced in many interviews. Future research into the experiences and perceptions of maternity healthcare professionals should include participants from these two key areas.

6.0 Conclusions

Maternity healthcare professionals are exposed to patient birth trauma on a regular basis in their practice, particularly in high-volume, high acuity hospital settings, and many are unaccustomed to approaching birth as a psychosocial event. They face challenges not just to providing high-quality care but to their own wellbeing as well, including secondary trauma, compassion fatigue, burnout and moral distress. Although many clinicians develop individual coping strategies, hospital systems and practice sites should plan ways to better prepare clinicians for the emotional challenges of maternity and develop structures within healthcare systems to better support providers.

The current structure and organization of some hospital systems and practice sites can interfere with the provision of high-quality maternity care and can inhibit clinicians' own self-care because of contextual factors, including high patient volume, inadequate staffing, lack of time for patient education, lack of continuity of care, and poor communication. Other implicit systemic issues such as racism, normalized mistreatment, and an institutional culture of medicalized birth also can and do insert themselves into the patient-provider interaction.

The phrase birth trauma has a wide range of meanings that have evolved over time. Many providers use the phrase as euphemism for mistreatment. Provider connotations of birth trauma overlap with patient mistreatment, and this dissertation research points to mistreatment as a potential contributor to patient experiences of birth trauma as well as to provider experiences of moral distress.

This study, focused on maternity healthcare professionals, does not lose sight of the critical role that modern obstetrics practice plays every day in saving the lives of both infants and mothers. Rather, choosing to interview maternity healthcare professions for this research was a deliberate attempt to explore their insights and to raise their voices about this health issue. Addressing the needs of maternity health professionals can improve their well-being and potentially provide additional insight into means for preventing some birth trauma.

The existing literature includes a broad sample of patient descriptions of birth trauma but has fewer offerings that explore the constraints and limitations placed on providers by the modern maternity care system. The findings from this research add to existing research about patient-provider communication and puts into a different perspective the "patient-provider" interaction as one that is mediated and moderated by contextual factors and power structures of the health system that are often out of the provider's control. It is important to note that some of the contextual factors that participants associated with increased risk of **patient** birth trauma are the same factors that interfered with **provider** ability to manage their own responses to birth trauma. By including and exploring these contextual factors, this study moves away from pathologizing women who experience birth trauma to exploring instead what it is about giving birth in a high-volume, high acuity maternity care facility that can contribute to the development of traumatic symptoms.

The results of this study are in many ways consistent with the current literature on birth trauma—participant descriptions align with patients' descriptions of what they find to be traumatizing about "normal" care and participant descriptions align with recently emerging research about the connections between birth trauma and mistreatment in many situations. This research, however, builds on that literature, by adding the voices of maternity healthcare professionals.

6.1 Public Health Implications

Findings from this research have implications for public health practice and highlight the need to improve the maternity care setting for the benefit of both patients and providers. Despite increased patient reports of birth trauma and its overlap with mistreatment, as well as recently emerging literature documenting the negative effects experienced by maternity care providers from regular exposure to patient birth trauma, few previous studies have explored the perspectives and experiences of maternity healthcare professionals about this important health issue. Additionally, very few studies have explored the contextual factors in hospital systems that can contribute to both poor patient outcomes and negative provider experiences. Although previous research has explored this health issue from a psychology perspective or within the fields of nursing and midwifery, this research contributes to a broader public health understanding of birth trauma in the United States, providing insight to healthcare providers' perspectives and experiences as well as the contextual factors and system drivers, including mistreatment and racism, that contribute to birth trauma.

Birth trauma is a serious public health issue that may not be well understood by many practitioners and patients. Additionally, current research has provided little useful guidance in developing prevention interventions. The research described in this dissertation begins to address the knowledge gaps around factors that contribute to birth trauma and what maternity healthcare professionals and maternity care *systems* can do to decrease the chances that their patients will experience trauma. This research generated information about maternity healthcare professionals' lived experiences and their perceptions of patient experiences of birth trauma. Participants described the limitations and challenges they face when providing maternity care that can leave their patients vulnerable to trauma. Participants also provided valuable information about

contextual factors that contribute to birth trauma, factors that will require a systems approach and patient-centered focus to improve.

The Institute of Medicine defines "patient-centered care" as "providing care that is respectful of, and responsive to, individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions."[176(p40)] This definition closely mirrors the WHO Recommendation on Respectful Maternity Care:

> *Care organized for and provided to all women in a manner that maintains their dignity, privacy and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support during labour and childbirth…*[124(p1)]

The findings from this research contribute to our understanding of important systems factors that can interfere with goals of achieving "patient-centered care" and "respectful maternity care." The participants in this study are experienced maternity healthcare providers and their descriptions of their own experiences in the maternity care system provide valuable insight into those factors.

As described in the Introduction to this dissertation nearly four million births take place each year in the United States. Recent research estimates that about 18% experience post-traumatic symptoms,[12] which translates to more than 680,000 women experiencing post-traumatic stress symptoms following childbirth. Although research often focuses specifically on PTSD, it is important to recognize that coping with any level of post-traumatic stress symptoms after giving birth can present problems for new mothers and their families. This research sheds light on some of the factors potentially contributing to these cases of trauma and offers clear opportunities for research and intervention development to prevent or minimize traumatic symptoms associated with birth.

6.1.1 Research Dissemination

Dissemination of the findings from this research is an important step in addressing the health effects of birth trauma for both patients and providers, particularly given the findings about birth trauma effects on maternity care providers' health and the overlap between birth trauma and mistreatment. Research findings can be a powerful tool for focusing attention on this critical public health problem, and the weight of these findings implies a responsibility to share them with maternity patients, providers, advocates, health care administrators and public health professionals.

The dissemination plan will include an initial program of reviewing and discussing research result with maternity care providers in the Pittsburgh area where the research was completed, through presentations at maternity hospitals, maternity practice sites and the birth center. Early presentations and informal talks will be developed to further the analysis of the research findings through triangulation with participants and other maternity healthcare researchers. These meetings will provide a valuable opportunity to work with maternity care professionals to further process the implications of the research findings.

The findings also can be used to increase awareness among both providers and patients about this health issue. The research findings also can contribute to advocacy efforts with healthcare facility administrators and payors about the need to better train and support maternity healthcare professionals in the psychosocial impact of birth on patients, so that they can provide more informed care that safeguards both patients and providers. Research findings can also be used in advocacy efforts demanding that maternity care systems meaningfully address mistreatment and racism. Minimizing patient trauma at birth can improve the downstream health effects of poor maternal outcomes.

Additionally, research results will be presented at professional and educational meetings of providers, including nurses, midwives and physicians, as well as other healthcare professionals and administrators who are part of maternity healthcare systems. Another important means to disseminate the findings from this research is publication in appropriate peer-reviewed journals. Scholarly articles developed from this research will be submitted to appropriate peer-reviewed journals.

6.2 Future Research and Practice

The findings from this dissertation research add to the growing exploration into the factors related to birth trauma as well as the impact of birth trauma experiences on maternity health care professionals. The findings also contribute to emerging research connecting birth trauma with disrespect, mistreatment and racism, and they contribute information about the contextual factors and health system drivers that influence both patient and provider experiences in the maternity care system. These qualitative findings raise important questions and opportunities for both research and intervention including:

1) How common are secondary trauma, compassion fatigue, burnout and moral distress among maternity care providers?
2) How can these conditions be prevented in maternity care settings and what can be done to support providers when they experience these negative outcomes?
3) How might secondary trauma, compassion fatigue and burnout contribute to patient experiences of maternity care as depersonalized and potentially traumatic?

6.2.1 Next Steps

The findings in this dissertation represent an initial analysis of the data gathered from 28 semi-structured interviews with maternity health professionals. These findings merit additional analysis, including an exploration of power dynamics and the larger context of privilege and oppression. Additionally, the research findings point to several other key research and intervention areas that are important for addressing the public health issues of birth trauma and mistreatment in a high volume, high acuity maternity settings including:

1) Safe-guarding maternity provider mental health;
2) Developing and providing training on healthy emotional response to birth complications;
3) Establishing structured opportunities to process experiences in high-stress, high volume maternity care settings;
4) Recognizing and eliminating patient mistreatment and disrespect, including unconsented procedures ;
5) Recognizing and eliminating discriminatory treatment based on race, ethnicity and lack of English language skills, and
6) Strengthening health system commitments to a patient-centered care model that includes continuity of care and minimize chaos at birth.

Additional research into the contextual factors and system drivers identified in this research, including lack of time at prenatal visits for meaningful patient education, lack of continuity of care, particularly for public insurance patients, poor patient-provider communication, lack of patient-centered care, and the general chaos perceived to be the norm during delivery care, is another important next step. These are systemic factors that will require a multidisciplinary

approach that includes providers, administrators and payers in order to develop studies and interventions that can be implemented within the health system to address these factors.

Another area for future research is implementing and assessing trauma-informed care for maternity healthcare professionals as an important first step in provider education, as this has been demonstrated to mitigate trauma response and is becoming common practice for first responders and emergency department personnel. As training is incorporated into different maternity care settings, researchers and evaluators can assess the effectiveness of training and monitor both patient outcomes and provider health outcomes, with the goal of providing adequate skills for compassionate patient response and for provider self-care. For nursing care, additional research into burnout specifically in maternity care, including horizontal violence from peers, is also a research priority.

To build off this qualitative research, future work exploring experiences and perceptions of birth trauma among maternity healthcare professionals could construct a large-scale quantitative survey to explore maternity care providers knowledge attitudes and practice related to patient birth trauma AND the potential negative consequences for providers. Ideally a survey would capture a random and representative sample of U.S. maternity care providers.

The findings from this research connecting birth trauma to disrespect, mistreatment and racism demand particular attention in both research and intervention. Certainly, training for maternity care providers in cultural competency and cultural humility is a first step, given the findings of discriminatory practices based on race, ethnicity and lack of English language skills. But research and intervention must go further than training existing staff within the existing system and instead must explore innovative ways to address mistreatment and racism in maternity care.

All childbearing people deserve access to respectful, high-quality maternity care that meets their needs and respects their birth preferences. All healthcare professionals deserve to practice in a setting that recognizes their needs and protects their health as well, by supporting them in meeting their own psychosocial needs to maintain their practice at the highest and most compassionate level. The findings reported in this dissertation offer useful and meaningful starting points for meeting these goals of respectful, high-quality maternity care delivered by healthy, compassionate providers within the context of a support and responsive system.

Appendix Semi-Structured Interview Guide

Maternity Care Providers' Perspectives and Experiences of Birth Trauma

Semi-Structured Interview Field Guide

Section 1: Broad perceptions and conceptualization of Birth Trauma (Aims 1 & 3)

1) **When you hear the word trauma in relation to birth, what do you think of?** [Prompts:]
   a. How would you describe this situation or how would other [physicians, midwives, nurses] in your field describe these kinds of situations?
   b. Is this something that you and your colleagues talk about it?

Section 2: Participants' Experiences or Experiences of Colleagues (Aims 1 & 3)

2) **Tell me a little bit about your own experiences as a [physician, midwife, nurse, resident] with birth trauma.** [Prompts:]
   a. How do you think the patient responded to that situation? Tell me about your own response?
      i. What in your training prepared you for this kind of situation?
   b. An experience with traumatic birth might stay with a [physician, nurse, midwife, resident] after the immediate situation. Can you talk a little about that?
      i. What do you think might impact the provider's response (positive and negative)? (or magnify the chances of it staying with you?)
      ii. What about traumatic birth and burnout?
      iii. What role do you think lack of support resources might play in burnout after traumatic birth? What about time pressures to get back to work after traumatic births?
   c. What are some of the challenges in talking to others about these situations?
   d. Can a traumatic birth experience cause a [physician, nurse, midwife, resident] to consider leaving maternity care?
   e. What about feeling the need to maintain a professional role in traumatic situations—how does that impact a provider's reaction?
      i. How might fear of litigation come into play?
   f. What about a patient who perceived her birth as traumatic, but in which the event appears to have been a normal birth with no poor outcomes, yet the mother reports trauma? Have you experienced anything like this?
      i. Can you share your thoughts about those situations?

Section 3: Response to Scenario (Aims 1, 2 & 3)

3) **Please take a moment to read these passages from women describing their birth.**[28] **[provide printed scenario]**

******

"The labor care has hurt deep in my soul and I have no words to describe the hurt. I was treated like a nothing, just someone to get data from. The nurse took my pulse, temperature, blood pressure, and weight without talking to me as a person. She then asked about teeth, colds and smoking without acknowledging me as a person. She left me, tears rolling down my face.[28]

"I felt like just a vessel into which you poured hormones hoping for the quick release of another baby.[28]

(after successful delivery of the baby)

[I] was congratulated for how "quickly and easily" the baby came out and that he scored a perfect 10! The worst thing was that nobody acknowledged that I had a bad time. Everyone was so pleased it had gone so well! I felt as if I had been raped!

I would have done anything to have this baby and did everything, even stuff I didn't want to. All I get told when dealing with the residual emotional effects is, "You should be happy with the outcome."[28]

******

What comes to your mind when you read this? [Prompts:]

a. What do you think contributes to this kind of situation, where the patient experiences birth this way?
b. Can you help me understand these differences?
c. Have you seen anything like this or heard about it from colleagues or patients?
d. What about patient expectations? And what about provider expectations?
e. Sometimes the patient's desires or expectations for birth and the baby's safety are presented as opposing factors, what are your thoughts about that?
f. What about the expression: "A healthy baby is all that matters."
g. What about patients who might experience something similar to what was described in the passage, but who do NOT end up with symptoms of trauma? What do you think contributes to their resilience during birth?

Section 4: Influence of practice setting, care environment, health system, society (Aim 2)

4) **Let's talk a little bit about the delivery room and the practice setting at your hospital [birth center]. What kinds of things do you think might impact whether or not the patient perceives the birth as traumatic? What kinds of things might impact whether the provider finds the birth traumatic?** Prompts:
   a. What do you find about your practice setting that helps you to do your job? What gets in the way?
   b. Let's talk a little bit about the practice setting, beyond the delivery room. What other practice setting factors impact the patient's response to birth? For example, I am wondering about staffing levels and hospital policies and time pressures, high census—those sorts of things. What do you think?
   c. Are there any things that you wish were handled differently or that you think could be reworked to support you and your patients better?

d. How do you think the patient's interactions with others during the birth might impact her perceptions of the birth as traumatic?
e. What role do you think the partner's support plays in whether the patient perceives her birth as traumatic?
f. Let's talk a little bit about communication. How does that come into play in a traumatic birth situation?
g. What factors impact communication with the mother?
h. What about differences of race or ethnicity? What impact can those have? How are differences handled? Do you see any relation to trauma?
i. What about the term "obstetric violence?" Can you describe how you conceptualize it? Talk a little bit about that.

Section 5: Moving forward, how can we address this issue for patients & providers?

5) **Thinking back on our discussion about birth trauma, the experiences that you and other colleagues have had over the course of your career and the potential for burn-out, as well as the potential for patients to experience trauma even when it seems nothing goes wrong during birth, what do you think needs to be done?** Prompts:
   a. What do you think is the most urgent part of this issue to address first? Why do you say that?
   b. What sorts of resources do you think you and your peers need? What about any specialized training? Is any of that available? Tell me more about that.
   c. And what sorts of resources do you think patients need? What resources are available for your patients? How do you let patients and providers know about these resources?
   d. What parts of this situation do you think providers can address? How?
   e. Who else needs to be involved to address this issue?

Section 6: Closing

6) **My final question: what else do you think it would be helpful for me to know about this topic that I haven't asked about yet?** [Prompt:]
   a. Is there anything else you would like to add?

Thank you for your willingness to talk with me today and for sharing your insights about the research topic. We have covered a lot of information and I am grateful that you have shared your experiences with me.

Thank you

Bibliography

1. Centers for Disease Control and Prevention (CDC). National Vital Statistics System. National Center for Health Statistics. Centers for Disease Control and. Published 2019. Accessed October 24, 2019.

2. MacDorman MF, Matthews TJ, Declercq E. Trends in out-of-hospital births in the United States, 1990-2012. *NCHS Data Brief*. 2014;(144):1-8. http://www.ncbi.nlm.nih.gov/pubmed/24594003.

3. Martin J, Hamilton B, Osterman M, Driscoll A, Drake P. *Births: Final Data for 2017*.; 2018.

4. Centers for Disease Coontrol and Prevention (CDC). Pregnancy Mortality Surveillance System. Reproductive Health. https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-mortality-surveillance-system.htm#ratio. Accessed June 29, 2019.

5. World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), World Bank Group, the United Nations Population Division. *Trends in Maternal Mortality: 1990 to 2015 Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division*. Geneva; 2015.

6. Chiu A. Beyoncé, Serena Williams open up about potentially fatal childbirths, a problem especially for black mothers. *The Washington Post*. August 7, 2017.

7. Buitendijk S. Gender Issues in Determining the Service and Research Agenda for Pregnancy and Birth Care: The Case of Home Birth in the Netherlands. *Interdiscip Sci Rev*. 2011;36(No. 2).

8. Bizer J. Teaching psychosomaatic obstetrics and gynecology. In: Cockburn J, Pawson ME, eds. *Psychological Challenges in Obstetrics and Gynecology*. London: Springer Publishing Company; 2007:3-13.

9. Lozoff B, Jordan B, Malone S. Childbirth in Cross-Cultural Perspectives. Palkovitz R, Sussman M, eds. *Marriage Fam Rev*. 1988;12.

10. Ayers S, Bond R, Bertullies S, Wijma K. The aetiology of post-traumatic stress following childbirth: a meta-analysis and theoretical framework. *Psychol Med*. 2016;46(6):1121-1134. doi:10.1017/S0033291715002706

11. Ayers S, Joseph S, McKenzie-McHarg K, Slade P, Wijma K. Post-traumatic stress disorder following childbirth: current issues and recommendations for future research. *J Psychosom Obstet Gynecol*. 2008;29(4):240-250. doi:10.1080/01674820802034631

12. Beck CT, Gable RK, Sakala C, Declercq ER. Posttraumatic Stress Disorder in New Mothers: Results from a Two-Stage U.S. National Survey. *Birth*. 2011;38(3):216-227. doi:10.1111/j.1523-536X.2011.00475.x

13. Lapp LK, Agbokou C, Peretti C-S, Ferreri F. Management of post traumatic stress disorder after childbirth: a review. *J Psychosom Obstet Gynecol*. 2010;31(3):113-122. doi:10.3109/0167482X.2010.503330

14. Beck CT, Driscoll J, Watson S. *Traumatic Childbirth*. Abingdon: Routledge; 2013.

15. Poleshuck EL, Woods J. Psychologists partnering with obstetricians and gynecologists: Meeting the need for patient-centered models of women's health care delivery. *Am Psychol*. 2014;69(4):344-354. doi:10.1037/a0036044

16. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Washington D.C.; 2013.

17. Pil T. Babel: The Voices of a Medical Trauma. *Pulse Voices from Hear Med*. 2010:1-3.

18. Dictionary.com. https://www.dictionary.com/browse/trauma. Accessed September 4, 2019.

19. Ley DJ. "Abusing the term trauma." Psychology Today.

20. Haslam N. Concept Creep: Psychology's Expanding Concepts of Harm and Pathology. *Psychol Inq*. 2016;27:1-17. doi:10.1080/1047840X.2016.1082418

21. Barbash E. Misuse of the word "trauma" to describe an experience. Tampatherapy.com. https://tampatherapy.com/2019/03/21/misuse-of-the-word-trauma-to-describe-an-experience/. Published 2019. Accessed September 4, 2019.

22. Soet JE, Brack GA, DiIorio C. Prevalence and predictors of women's experience of psychological trauma during childbirth. *Birth*. 2003;30(1):36-46. http://www.ncbi.nlm.nih.gov/pubmed/12581038.

23. Ayers S, Pickering AD. Do Women Get Posttraumatic Stress Disorder as a Result of Childbirth? A Prospective Study of Incidence. *Birth*. 2001;28(2):111-118. doi:10.1046/j.1523-536X.2001.00111.x

24. Ayers S. Delivery as a traumatic event: prevalence, risk factors, and treatment for postnatal posttraumatic stress disorder. *Clin Obstet Gynecol*. 2004;47(3):552-567. http://www.ncbi.nlm.nih.gov/pubmed/15326418.

25. Turton P, Hughes P, Evans CD, Fainman D. Incidence, correlates and predictors of post-traumatic stress disorder in the pregnancy after stillbirth. *Br J Psychiatry*. 2001;178:556-560. http://www.ncbi.nlm.nih.gov/pubmed/11388974.

26. Grekin R, O'Hara MW. Prevalence and risk factors of postpartum posttraumatic stress disorder: A meta-analysis. *Clin Psychol Rev*. 2014;34(5):389-401. doi:10.1016/j.cpr.2014.05.003

27. U.S. Department of Veteran Affairs. PTSD: National Center for PTSD. https://www.ptsd.va.gov/professional/treat/essentials/epidemiology.asp. Published 2019. Accessed July 1, 2019.

28. Beck CT. Birth trauma: in the eye of the beholder. *Nurs Res*. 2004;53(1):28-35. http://www.ncbi.nlm.nih.gov/pubmed/14726774.

29. Beck CT, Watson S. Impact of Birth Trauma on Breast-feeding. *Nurs Res*. 2008;57(4):228-236. doi:10.1097/01.NNR.0000313494.87282.90

30. Turkstra E, Creedy DK, Fenwick J, Buist A, Scuffham PA, Gamble J. Health services utilization of women following a traumatic birth. *Arch Womens Ment Health*. 2015;18(6):829-832. doi:10.1007/s00737-014-0495-7

31. Ayers S, Eagle A, Waring H. The effects of childbirth-related post-traumatic stress disorder on women and their relationships: A qualitative study. *Psychol Health Med*. 2006;11(4):389-398. doi:10.1080/13548500600708409

32. Forssén ASK. Lifelong Significance of Disempowering Experiences in Prenatal and Maternity Care. *Qual Health Res*. 2012;22(11):1535-1546. doi:10.1177/1049732312449212

33. Alcorn KL, O'Donovan A, Patrick JC, Creedy D, Devilly GJ. A prospective longitudinal study of the prevalence of post-traumatic stress disorder resulting from childbirth events. *Psychol Med*. 2010;40(11):1849-1859. doi:10.1017/S0033291709992224

34. van Son M, Verkerk G, van der Hart O, Komproe I, Pop V. Prenatal depression, mode of delivery and perinatal dissociation as predictors of postpartum posttraumatic stress: an empirical study. *Clin Psychol Psychother*. 2005;12(4):297-312. doi:10.1002/cpp.446

35. Zaers S, Waschke M, Ehlert U. Depressive symptoms and symptoms of post-traumatic stress disorder in women after childbirth. *J Psychosom Obstet Gynecol*. 2008;29(1):61-71. doi:10.1080/01674820701804324

36. Söderquist J, Wijma B, Wijma K. The longitudinal course of post-traumatic stress after childbirth. *J Psychosom Obstet Gynecol*. 2006;27(2):113-119. doi:10.1080/01674820600712172

37. Creedy DK, Shochet IM, Horsfall J. Childbirth and the Development of Acute Trauma Symptoms: Incidence and Contributing Factors. *Birth*. 2000;27(2):104-111. doi:10.1046/j.1523-536x.2000.00104.x

38. Czarnocka J, Slade P. Prevalence and predictors of post-traumatic stress symptoms following childbirth. *Br J Clin Psychol*. 2000;39 (Pt 1):35-51. http://www.ncbi.nlm.nih.gov/pubmed/10789027.

39. Slade P. Towards a conceptual framework for understanding post-traumatic stress symptoms following childbirth and implications for further research. *J Psychosom Obstet Gynaecol*. 2006;27(2):99-105. http://www.ncbi.nlm.nih.gov/pubmed/16808084.

40. Beck CT. Post-traumatic stress disorder due to childbirth: the aftermath. *Nurs Res*. 2004;53(4):216-224. http://www.ncbi.nlm.nih.gov/pubmed/15266160.

41. Mozingo JN, Davis MW, Thomas SP, Droppleman PG. "I felt violated": women's experience of childbirth-associated anger. *MCN Am J Matern Child Nurs*. 27(6):342-348. http://www.ncbi.nlm.nih.gov/pubmed/12439136.

42. Beck CT, Gable RK. A Mixed Methods Study of Secondary Traumatic Stress in Labor and Delivery Nurses. *J Obstet Gynecol Neonatal Nurs*. 2012;41(6):747-760. doi:10.1111/j.1552-6909.2012.01386.x

43. Allen S. A qualitative analysis of the process, mediating variables and impact of traumatic childbirth. *J Reprod Infant Psychol*. 1998;16(2-3):107-131. doi:10.1080/02646839808404563

44. Beck CT, Watson S. Subsequent Childbirth After a Previous Traumatic Birth. *Nurs Res*. 2010;59(4):241-249. doi:10.1097/NNR.0b013e3181e501fd

45. Elmir R, Schmied V, Wilkes L, Jackson D. Women's perceptions and experiences of a traumatic birth: a meta-ethnography. *J Adv Nurs*. 2010;66(10):2142-2153. doi:10.1111/j.1365-2648.2010.05391.x

46. Gottvall K, Waldenström U. Does a traumatic birth experience have an impact on future reproduction? *BJOG*. 2002;109(3):254-260. http://www.ncbi.nlm.nih.gov/pubmed/11950179.

47. DeMier RL, Hynan MT, Hatfield RF, Varner MW, Harris HB, Manniello RL. A measurement model of perinatal stressors: Identifying risk for postnatal emotional distress in mothers of high-risk infants. *J Clin Psychol*. 2000;56(1):89-100. doi:10.1002/(SICI)1097-4679(200001)56:1<89::AID-JCLP8>3.0.CO;2-6

48. Greenfield M, Jomeen J, Glover L. "It Can't Be Like Last Time" – Choices Made in Early Pregnancy by Women Who Have Previously Experienced a Traumatic Birth. *Front Psychol*. 2019;10. doi:10.3389/fpsyg.2019.00056

49. Greenfield M, Jomeen J, Glover L. "It can't be like last time" - Choices made in early pregnancy by women who have previously experienced a traumatic birth. *Front Psychol*. 2019;10(JAN):1-13. doi:10.3389/fpsyg.2019.00056

50. Sorenson DS. Healing traumatizing provider interactions among women through short-term group therapy. *Arch Psychiatr Nurs*. 2003;17(6):259-269. http://www.ncbi.nlm.nih.gov/pubmed/14685950.

51. Swahnberg K, Thapar-Björkert S, Berterö C. Nullified: Women's perceptions of being abused in health care. *J Psychosom Obstet Gynecol*. 2007;28(3):161-167. doi:10.1080/01674820601143211

52. Moyzakitis W. *Exploring Women's Descriptions of Distress and/or Trauma in Childbirth from a Feminist Perspective*. Vol 2.; 2004.

53. Brady KT, Killeen TK, Brewerton T, Lucerini S. Comorbidity of psychiatric disorders and posttraumatic stress disorder. *J Clin Psychiatry*. 2000;61 Suppl 7:22-32. http://www.ncbi.nlm.nih.gov/pubmed/10795606.

54. Harris R, Ayers S. What makes labour and birth traumatic? A survey of intrapartum 'hotspots.' *Psychol Health*. 2012;27(10):1166-1177. doi:10.1080/08870446.2011.649755

55. Sorenson DS, Tschetter L. Prevalence of Negative Birth Perception, Disaffirmation, Perinatal Trauma Symptoms, and Depression Among Postpartum Women. *Perspect Psychiatr Care*. 2010;46(1):14-25. doi:10.1111/j.1744-6163.2009.00234.x

56. Bastos MH, Furuta M, Small R, McKenzie-McHarg K, Bick D. Debriefing interventions for the prevention of psychological trauma in women following childbirth. *Cochrane Database Syst Rev*. April 2015. doi:10.1002/14651858.CD007194.pub2

57. Gamble J, Creedy D, Moyle W, Webster J, McAllister M, Dickson P. Effectiveness of a Counseling Intervention after a Traumatic Childbirth: A Randomized Controlled Trial. *Birth*. 2005;32(1):11-19. doi:10.1111/j.0730-7659.2005.00340.x

58. Priest SR, Henderson J, Evans SF, Hagan R. Stress debriefing after childbirth: a randomised controlled trial. *Med J Aust*. 2003;178(11):542-545. http://www.ncbi.nlm.nih.gov/pubmed/12765500.

59. Rose SC, Bisson J, Churchill R, Wessely S. Psychological debriefing for preventing post traumatic stress disorder (PTSD). *Cochrane Database Syst Rev*. April 2002. doi:10.1002/14651858.CD000560

60. Small R. Randomised controlled trial of midwife led debriefing to reduce maternal depression after operative childbirth. *BMJ*. 2000;321(7268):1043-1047. doi:10.1136/bmj.321.7268.1043

61. Borg Cunen N, McNeill J, Murray K. A systematic review of midwife-led interventions to address post partum post-traumatic stress. *Midwifery*. 2014;30(2):170-184. doi:10.1016/j.midw.2013.09.003

62. Ayers S, McKenzie-McHarg K, Eagle A. Cognitive behaviour therapy for postnatal post-traumatic stress disorder: case studies. *J Psychosom Obstet Gynecol*. 2007;28(3):177-184. doi:10.1080/01674820601142957

63. Sandström M, Wiberg B, Wikman M, Willman A-K, Högberg U. A pilot study of eye movement desensitisation and reprocessing treatment (EMDR) for post-traumatic stress after childbirth. *Midwifery*. 2008;24(1):62-73. doi:10.1016/j.midw.2006.07.008

64. Di Blasio P, Camisasca E, Caravita SCS, Ionio C, Milani L, Valtolina GG. The Effects of Expressive Writing on Postpartum Depression and Posttraumatic Stress Symptoms. *Psychol Rep*. 2015;117(3):856-882. doi:10.2466/02.13.PR0.117c29z3

65. Garthus-Niegel S, Ayers S, von Soest T, Torgersen L, Eberhard-Gran M. Maintaining factors of posttraumatic stress symptoms following childbirth: A population-based, two-year follow-up study. *J Affect Disord*. 2015;172:146-152. doi:10.1016/j.jad.2014.10.003

66. Solace for Mothers: healing after traumatic childbirth. Wordpress. http://www.solaceformothers.org. Accessed June 21, 2019.

67. Ballard CG, Stanley AK, Brockington IF. Post-Traumatic Stress Disorder (PTSD) after Childbirth. *Br J Psychiatry*. 1995;166(4):525-528. doi:10.1192/bjp.166.4.525

68. Ayers S, Wright DB, Wells N. Symptoms of post-traumatic stress disorder in couples after birth: association with the couple's relationship and parent–baby bond. *J Reprod Infant Psychol*. 2007;25(1):40-50. doi:10.1080/02646830601117175

69. Murray L, Cooper P, Hipwell A. Mental health of parents caring for infants. *Arch Womens Ment Health*. 2003;6:s71-s77. doi:10.1007/s00737-003-0007-7

70. Bascom EM, Napolitano MA. Breastfeeding Duration and Primary Reasons for Breastfeeding Cessation among Women with Postpartum Depressive Symptoms. *J Hum Lact*. 2016;32(2):282-291. doi:10.1177/0890334415619908

71. Slomian J, Honvo G, Emonts P, Reginster J-Y, Bruyère O. Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. *Women's Heal*. 2019;15:174550651984404. doi:10.1177/1745506519844044

72. Karam F, Sheehy O, Huneau M-C, et al. Impact of maternal prenatal and parental postnatal stress on 1-year-old child development: results from the OTIS antidepressants in pregnancy study. *Arch Womens Ment Health*. 2016;19(5):835-843. doi:10.1007/s00737-016-0624-6

73. Pearson RM, Campbell A, Howard LM, et al. Impact of dysfunctional maternal personality traits on risk of offspring depression, anxiety and self-harm at age 18 years: a population-based longitudinal study. *Psychol Med*. 2018;48(1):50-60. doi:10.1017/S0033291717001246

74. Apter-Levy Y, Feldman M, Vakart A, Ebstein RP, Feldman R. Impact of Maternal Depression Across the First 6 Years of Life on the Child's Mental Health, Social

Engagement, and Empathy: The Moderating Role of Oxytocin. *Am J Psychiatry*. 2013;170(10):1161-1168. doi:10.1176/appi.ajp.2013.12121597

75. Nicholls K, Ayers S. Childbirth-related post-traumatic stress disorder in couples: A qualitative study. *Br J Health Psychol*. 2007;12(4):491-509. doi:10.1348/135910706X120627

76. Etheridge J, Slade P. "Nothing's actually happened to me.": the experiences of fathers who found childbirth traumatic. *BMC Pregnancy Childbirth*. 2017;17(1):80. doi:10.1186/s12884-017-1259-y

77. Beck CT. Middle Range Theory of Traumatic Childbirth. *Glob Qual Nurs Res*. 2015;2:233339361557531. doi:10.1177/2333393615575313

78. Bradley R, Slade P, Leviston A. Low rates of PTSD in men attending childbirth: A preliminary study. *Br J Clin Psychol*. 2008;47(3):295-302. doi:10.1348/014466508X279495

79. Moleman N, van der Hart O, van der Kolk BA. The partus stress reaction: a neglected etiological factor in postpartum psychiatric disorders. *J Nerv Ment Dis*. 1992;180(4):271-272.

80. Elmir R, Pangas J, Dahlen H, Schmied V. A meta-ethnographic synthesis of midwives' and nurses' experiences of adverse labour and birth events. *J Clin Nurs*. 2017;26(23-24):4184-4200. doi:10.1111/jocn.13965

81. Hodnett ED, Gates S, Hofmeyr GJ, Sakala C. Continuous support for women during childbirth. In: Hodnett ED, ed. *Cochrane Database of Systematic Reviews*. Chichester, UK: John Wiley & Sons, Ltd; 2013. doi:10.1002/14651858.CD003766.pub5

82. Fisher C, Hauck Y, Fenwick J. How social context impacts on women's fears of childbirth: A Western Australian example. *Soc Sci Med*. 2006;63(1):64-75. doi:10.1016/j.socscimed.2005.11.065

83. Simkin PP, O'hara M. Nonpharmacologic relief of pain during labor: systematic reviews of five methods. *Am J Obstet Gynecol*. 2002;186(5 Suppl Nature):S131-59. doi:10.1067/mob.2002.122382

84. Simpson M, Catling C. Understanding psychological traumatic birth experiences: A literature review. *Women and Birth*. 2016;29(3):203-207. doi:10.1016/j.wombi.2015.10.009

85. Alder J, Stadlmayr W, Tschudin S, Bitzer J. Post-traumatic symptoms after childbirth: What should we offer? *J Psychosom Obstet Gynecol*. 2006;27(2):107-112. doi:10.1080/01674820600714632

86. Paul TA. Prevalence of Posttraumatic Stress Symptoms After Childbirth: Does Ethnicity Have an Impact? *J Perinat Educ*. 2008;17(3):17-26. doi:10.1624/105812408X324534

87. Hotelling B, Amis D, Green J, Sakala C. #3: continuous labor support. *J Perinat Educ*. 2004;13(2):16-22. doi:10.1624/105812404X109492

88. Hollander MH, van Hastenberg E, van Dillen J, van Pampus MG, de Miranda E, Stramrood CAI. Preventing traumatic childbirth experiences: 2192 women's perceptions and views. *Arch Womens Ment Health*. 2017;20(4):515-523. doi:10.1007/s00737-017-0729-6

89. Simkin P. Just another day in a woman's life? Women's long-term perceptions of their first birth experience. Part I. *Birth*. 1991;18(4):203-210.

90. Simkin P. Just another day in a woman's life? Part II: Nature and consistency of women's long-term memories of their first birth experiences. *Birth*. 1992;19(2):64-81.

91. Simkin P. *A Day You'll Never Forget: The Importance of Birth Memories*.; 2015.

92. Beck CT, Casavant S. Synthesis of Mixed Research on Posttraumatic Stress Related to Traumatic Birth. *J Obstet Gynecol Neonatal Nurs*. 2019;48(4):385-397. doi:10.1016/j.jogn.2019.02.004

93. Nimmon A, Huggard P. A systematic review of the measurement of compassion fatigue, vicarious trauma, and secondary traumatic stress in physicians. *Australas J Disaster Trauma Stud*. 2013;2013:37-44.

94. Simkin P. Pain, suffering, and trauma in labor and prevention of subsequent posttraumatic stress disorder. *J Perinat Educ*. 2011;20(3):166-176. doi:10.1891/1058-1243.20.3.166

95. Figley C. Compassion fatigue: Toward a new understanding of the costs of caring. January 1995.

96. Scott SD, Hirschinger LE, Cox KR, et al. Caring for our own: deploying a systemwide second victim rapid response team. *Jt Comm J Qual patient Saf*. 2010;36(5):233-240. http://www.ncbi.nlm.nih.gov/pubmed/20480757.

97. Schrøder K, Larsen PV, Jørgensen JS, Hjelmborg J v. B, Lamont RF, Hvidt NC. Psychosocial health and well-being among obstetricians and midwives involved in traumatic childbirth. *Midwifery*. 2016;41:45-53. doi:10.1016/j.midw.2016.07.013

98. Sorenson C, Bolick B, Wright K, Hamilton R. An Evolutionary Concept Analysis of Compassion Fatigue. *J Nurs Scholarsh*. 2017;49(5):557-563. doi:10.1111/jnu.12312

99. Sorenson C, Bolick B, Wright K, Hamilton R. Understanding Compassion Fatigue in Healthcare Providers: A Review of Current Literature. *J Nurs Scholarsh*. 2016;48(5):456-465. doi:10.1111/jnu.12229

100. Baer TE, Feraco AM, Tuysuzoglu Sagalowsky S, Williams D, Litman HJ, Vinci RJ. Pediatric Resident Burnout and Attitudes Toward Patients. *Pediatrics*. 2017;139(3):e20162163. doi:10.1542/peds.2016-2163

101. Jameton A. *Nursing Practice: The Ethical Issues*. Englewood Cliffs, NJ: Prentice Hall; 1984.

102. Pauly BM, Varcoe C, Storch J. Framing the issues: moral distress in health care. *HEC Forum*. 2012;24(1):1-11. doi:10.1007/s10730-012-9176-y

103. Beck CT, LoGiudice J, Gable RK. A mixed-methods study of secondary traumatic stress in certified nurse-midwives: shaken belief in the birth process. *J Midwifery Womens Health*. 2015;60(1):16-23. doi:10.1111/jmwh.12221

104. Chan ST, Khong PCB, Wang W. Psychological responses, coping and supporting needs of healthcare professionals as second victims. *Int Nurs Rev*. 2017;64(2):242-262. doi:10.1111/inr.12317

105. Sinclair S, Raffin-Bouchal S, Venturato L, Mijovic-Kondejewski J, Smith-MacDonald L. Compassion fatigue: A meta-narrative review of the healthcare literature. *Int J Nurs Stud*. 2017;69:9-24. doi:10.1016/j.ijnurstu.2017.01.003

106. Sinclair S, Norris JM, McConnell SJ, et al. Compassion: A scoping review of the healthcare literature Knowledge, education and training. *BMC Palliat Care*. 2016;15(1):1-16. doi:10.1186/s12904-016-0080-0

107. Caudwell-Hall J, Kamisan Atan I, Guzman Rojas R, Langer S, Shek KL, Dietz HP. Atraumatic normal vaginal delivery: how many women get what they want? *Am J Obstet Gynecol*. 2018;219(4):379.e1-379.e8. doi:10.1016/j.ajog.2018.07.022

108. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 3rd ed. Washington D.C.; 1980.

109. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. Washington D.C.; 1994.

110. Menage J. Post-traumatic stress disorder in women who have undergone obstetric and/or gynaecological procedures: A consecutive series of 30 cases of PTSD. *J Reprod Infant Psychol*. 1993;11(4):221-228. doi:10.1080/02646839308403222

111. Wijma K, Söderquist J, Wijma B. Posttraumatic stress disorder after childbirth: a cross sectional study. *J Anxiety Disord*. 1997;11(6):587-597. http://www.ncbi.nlm.nih.gov/pubmed/9455721.

112. Olde E, Vanderhart O, Kleber R, Vanson M. Posttraumatic stress following childbirth: A review. *Clin Psychol Rev*. 2006;26(1):1-16. doi:10.1016/j.cpr.2005.07.002

113. Lyons S. A prospective study of post traumatic stress symptoms 1 month following childbirth in a group of 42 first-time mothers. *J Reprod Infant Psychol*. 1998;16(2-3):91-105. doi:10.1080/02646839808404562

114. Ford E, Ayers S. Support during birth interacts with prior trauma and birth intervention to predict postnatal post-traumatic stress symptoms. *Psychol Health*. 2011;26(12):1553-1570. doi:10.1080/08870446.2010.533770

115. Ryding EL, Wijma B, Wijma K. Posttraumatic stress reactions after emergency cesarean section. *Acta Obstet Gynecol Scand*. 1997;76(9):856-861. http://www.ncbi.nlm.nih.gov/pubmed/9351412.

116. Holditch-Davis D, Bartlett TR, Blickman AL, Miles MS. Posttraumatic stress symptoms in mothers of premature infants. *J Obstet Gynecol neonatal Nurs JOGNN*. 2003;32(2):161-171. http://www.ncbi.nlm.nih.gov/pubmed/12685667.

117. Simkin P, Klaus P. *When Survivors Give Birth*. Seattle, WA: Classic Day Publishing; 2004.

118. Soderquist J, Wijma K, Wijma B. Traumatic Stress after Childbirth: The Role of Obstetric Variables. *J Psychosom Obstet Gynecol*. 2002;23(1):31-39. doi:10.3109/01674820209093413

119. Andersen Lb, Melvaer Lb, Videbech P, Lamont Rf, Joergensen JS. Risk factors for developing post-traumatic stress disorder following childbirth: a systematic review. *Acta Obstet Gynecol Scand*. 2012;91(11):1261-1272. doi:10.1111/j.1600-0412.2012.01476.x

120. Thomson G, Downe S. Widening the trauma discourse: the link between childbirth and experiences of abuse. *J Psychosom Obstet Gynecol*. 2008;29(4):268-273. doi:10.1080/01674820802545453

121. Holmes EA, Grey N, Young KAD. Intrusive images and "hotspots" of trauma memories in Posttraumatic Stress Disorder: an exploratory investigation of emotions and cognitive themes. *J Behav Ther Exp Psychiatry*. 2005;36(1):3-17. doi:10.1016/j.jbtep.2004.11.002

122. Reed R, Sharman R, Inglis C. Women's descriptions of childbirth trauma relating to care provider actions and interactions. *BMC Pregnancy Childbirth*. 2017;17(1):21. doi:10.1186/s12884-016-1197-0

123. Hodges S. Abuse in Hospital-Based Birth Settings? *J Perinat Educ*. 2009;18(4):8-11. doi:10.1624/105812409X474663

124. World Health Organization (WHO). *WHO Recommendation on Respectful Maternity Care during Labour and Childbirth*.; 2018. https://extranet.who.int/rhl/topics/preconception-pregnancy-childbirth-and-postpartum-care/care-during-childbirth/who-recommendation-respectful-maternity-care-during-labour-and-childbirth.

125. Bohren MA, Vogel JP, Hunter EC, et al. The Mistreatment of Women during Childbirth in Health Facilities Globally: A Mixed-Methods Systematic Review. Jewkes R, ed. *PLOS Med*. 2015;12(6):e1001847. doi:10.1371/journal.pmed.1001847

126. Beck CT. A Secondary Analysis of Mistreatment of Women During Childbirth in Health Care Facilities. *J Obstet Gynecol Neonatal Nurs*. 2018;47(1):94-104. doi:10.1016/j.jogn.2016.08.015

127. Vedam S, Stoll K, Taiwo TK, et al. The Giving Voice to Mothers study: inequity and mistreatment during pregnancy and childbirth in the United States. *Reprod Health*. 2019;16(1):77. doi:10.1186/s12978-019-0729-2

128. Gaffey AE, Aranda F, Burns JW, et al. Race, psychosocial vulnerability and social support differences in inner-city women's symptoms of posttraumatic stress disorder. *Anxiety, Stress Coping*. 2019;32(1):18-31. doi:10.1080/10615806.2018.1532078

129. Wasco SM. Conceptualizing the Harm done by Rape. *Trauma, Violence, Abus*. 2003;4(4):309-322. doi:10.1177/1524838003256560

130. Wylie L, Van Meyel R, Harder H, et al. Assessing trauma in a transcultural context: Challenges in mental health care with immigrants and refugees. *Public Health Rev*. 2018;39(1):1-19. doi:10.1186/s40985-018-0102-y

131. Salm Ward TC, Mazul M, Ngui EM, Bridgewater FD, Harley AE. "You Learn to Go Last": Perceptions of Prenatal Care Experiences among African-American Women with Limited Incomes. *Matern Child Health J*. 2013;17(10):1753-1759. doi:10.1007/s10995-012-1194-5

132. McLemore MR, Altman MR, Cooper N, Williams S, Rand L, Franck L. Health care experiences of pregnant, birthing and postnatal women of color at risk for preterm birth. *Soc Sci Med*. 2018;201:127-135. doi:10.1016/j.socscimed.2018.02.013

133. Altman MR, Oseguera T, McLemore MR, Kantrowitz-Gordon I, Franck LS, Lyndon A. Information and power: Women of color's experiences interacting with health care providers in pregnancy and birth. *Soc Sci Med*. 2019;238:112491. doi:10.1016/j.socscimed.2019.112491

134. Black LL, Johnson R, VanHoose L. The Relationship Between Perceived Racism/Discrimination and Health Among Black American Women: a Review of the Literature from 2003 to 2013. *J Racial Ethn Heal Disparities*. 2015;2(1):11-20. doi:10.1007/s40615-014-0043-1

135. Goer H. Cruelty in Maternity Wards: Fifty Years Later. *J Perinat Educ*. 2010;19(3):33-42. doi:10.1624/105812410X514413

136. Beck CT. Secondary Traumatic Stress in Nurses: A Systematic Review. *Arch Psychiatr Nurs*. 2011;25(1):1-10. doi:10.1016/j.apnu.2010.05.005

137. Patton M. *Qualitative Research & Evaluation Methods*. 4th ed. Thousand Oaks, CA: SAGE Publications Inc; 2015.

138. McLeroy KR, Bibeau D, Steckler A, Glanz K. An Ecological Perspective on Health Promotion Programs. *Health Educ Q*. 1988;15(4):351-377. doi:10.1177/109019818801500401

139. Shaw D, Guise J-M, Shah N, et al. Drivers of maternity care in high-income countries: can health systems support woman-centred care? *Lancet*. 2016;388(10057):2282-2295. doi:10.1016/S0140-6736(16)31527-6

140. Campbell R, Dworkin E, Cabral G. An Ecological Model of the Impact of Sexual Assault On Women's Mental Health. *Trauma, Violence, Abus*. 2009;10(3):225-246. doi:10.1177/1524838009334456

141. Neville HA, Heppner MJ. Contextualizing rape: Reviewing sequelae and proposing a culturally inclusive ecological model of sexual assault recovery. *Appl Prev Psychol*. 1999;8(1):41-62. doi:10.1016/S0962-1849(99)80010-9

142. Charmz K. Constructing Grounded Theory. In: Seaman J, ed. 2nd ed. Thousand Oaks, CA: SAGE Publications Ltd; 2014.

143. Berman H, Mason R, Hall J, et al. Laboring to Mother in the Context of Past Trauma. *Qual Health Res*. 2014;24(9):1253-1264. doi:10.1177/1049732314521902

144. Wahlberg Å, Högberg U, Emmelin M. The erratic pathway to regaining a professional self-image after an obstetric work-related trauma: A grounded theory study. *Int J Nurs Stud*. 2019;89:53-61. doi:10.1016/j.ijnurstu.2018.07.016

145. Charmaz K. Constructing Ground Theory. In: 2nd ed. Los Angeles: SAGE Publications Ltd; 2014:416.

146. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77-101. doi:10.1191/1478088706qp063oa

147. Krippendorff K. *Content Analysis: An Introduction to Its Methodology*. 2nd ed. Thousand Oaks, CA: SAGE Publications Inc; 2004.

148. Midwives Alliance North America. https://mana.org/about-midwives/state-by-state#Pennsylvania . Published 2019. Accessed September 3, 2019.

149. Balser E. Newborn brings hope after Pittsburgh mom dies during childbirth. *Pittsburgh Tribune*. May 30, 2019.

150. Wahlberg Å, Andreen Sachs M, Johannesson K, et al. Post-traumatic stress symptoms in Swedish obstetricians and midwives after severe obstetric events: a cross-sectional retrospective survey. *BJOG An Int J Obstet Gynaecol*. 2017;124(8):1264-1271. doi:10.1111/1471-0528.14259

151. McCool W, Guidera M, Stenson M, Dauphinee L. The Pain That Binds Us: Midwives' Experiences of Loss and Adverse Outcomes Around the World. *Health Care Women Int*. 2009;30(11):1003-1013. doi:10.1080/07399330903134455

152. Sheen K, Spiby H, Slade P. Exposure to traumatic perinatal experiences and posttraumatic stress symptoms in midwives: prevalence and association with burnout. *Int J Nurs Stud*. 2015;52(2):578-587. doi:10.1016/j.ijnurstu.2014.11.006

153. Goldbort J, Knepp A, Mueller C, Pyron M. Intrapartum nurses' lived experience in a traumatic birthing process. *MCN Am J Matern Child Nurs*. 2011;36(6):373-380. doi:10.1097/NMC.0b013e31822de535

154. Newell JM, MacNeil GA. Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A reviewof theoretical terms, risk factors and preventive methods for clinicians and researchers. *Best Pract Ment Health*. 2010;6(2):57-68.

155. Rice H, Warland J. Bearing witness: midwives experiences of witnessing traumatic birth. *Midwifery*. 2013;29(9):1056-1063. doi:10.1016/j.midw.2012.12.003

156. Leinweber J, Rowe HJ. The costs of 'being with the woman': secondary traumatic stress in midwifery. *Midwifery*. 2010;26(1):76-87. doi:10.1016/j.midw.2008.04.003

157. Sheen K, Spiby H, Slade P. What are the characteristics of perinatal events perceived to be traumatic by midwives? *Midwifery*. 2016;40:55-61. doi:10.1016/j.midw.2016.06.007

158. Zhang Y-Y, Han W-L, Qin W, et al. Extent of compassion satisfaction, compassion fatigue and burnout in nursing: A meta-analysis. *J Nurs Manag*. 2018;26(7):810-819. doi:10.1111/jonm.12589

159. Phillips CS, Volker DL. Riding the Roller Coaster: A Qualitative Study of Oncology Nurses' Emotional Experience in Caring for Patients and Their Families. *Cancer Nurs*. July 2019. doi:10.1097/NCC.0000000000000734

160. Sullivan CE, King A-R, Holdiness J, et al. Reducing Compassion Fatigue in Inpatient Pediatric Oncology Nurses. *Oncol Nurs Forum*. 2019;46(3):338-347. doi:10.1188/19.ONF.338-347

161. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med*. 2012;172(18):1377-1385. doi:10.1001/archinternmed.2012.3199

162. Figley CR. Compassion fatigue: Psychotherapists' chronic lack of self care. *J Clin Psychol*. 2002;58:1433-1441.

163. Aiken LH, Clarke SP, Sloane DM, Sochalski J, Silber JH. Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction. *JAMA*. 2002;288(16):1987-1993. doi:10.1001/jama.288.16.1987

164. Susan A, Harris R, Sawyer A, Parfitt Y, Ford E. Posttraumatic stress disorder after childbirth: Analysis of symptom presentation and sampling. *J Affect Disord*. 2009;119(1-3):200-204. doi:10.1016/j.jad.2009.02.029

165. Association of Women's Health (AWHONN), Obstetric and Neonatal Nurses. Nursing Guidelines. https://www.awhonn.org. Published 2019. Accessed September 24, 2019.

166. Chuang C-H, Tseng P-C, Lin C-Y, Lin K-H, Chen Y-Y. Burnout in the intensive care unit professionals: A systematic review. *Medicine (Baltimore)*. 2016;95(50):e5629-e5629. doi:10.1097/MD.0000000000005629

167. Aiken LH, Clarke SP, Sloane DM. Hospital staffing, organization, and quality of care: cross-national findings. *Int J Qual Heal care J Int Soc Qual Heal Care*. 2002;14(1):5-13. doi:10.1093/intqhc/14.1.5

168. Harrington KJ, Affronti M Lou, Schneider SM, Razzak AR, Smith TJ. Improving Attitudes and Perceptions About End-of-Life Nursing on a Hospital-Based Palliative Care Unit. *J Hosp Palliat Nurs*. 2019;21(4):272-279. doi:10.1097/NJH.0000000000000523

169. Kravits K, McAllister-Black R, Grant M, Kirk C. Self-care strategies for nurses: A psycho-educational intervention for stress reduction and the prevention of burnout. *Appl Nurs Res*. 2010;23(3):130-138. doi:10.1016/j.apnr.2008.08.002

170. de Oliveira SM, de Alcantara Sousa LV, Vieira Gadelha M do S, do Nascimento VB. Prevention Actions of Burnout Syndrome in Nurses: An Integrating Literature Review. *Clin Pract Epidemiol Ment Health*. 2019;15:64-73. doi:10.2174/1745017901915010064

171. Hamric AB, Davis WS, Childress MD. Moral distress in health care professionals. *Pharos Alpha Omega Alpha Honor Med Soc*. 2006;69(1):16-23.

172. Burston AS, Tuckett AG. Moral distress in nursing: contributing factors, outcomes and interventions. *Nurs Ethics*. 2013;20(3):312-324. doi:10.1177/0969733012462049

173. Leinweber J, Creedy DK, Rowe H, Gamble J. Responses to birth trauma and prevalence of posttraumatic stress among Australian midwives. *Women and Birth*. 2017;30(1):40-45. doi:10.1016/j.wombi.2016.06.006

174. Leinweber J, Creedy DK, Rowe H, Gamble J. A socioecological model of posttraumatic stress among Australian midwives. *Midwifery*. 2017;45:7-13. doi:10.1016/j.midw.2016.12.001

175. March of Dimes. *Nowhere to Go: Maternity Care Deserts across the U.S.*; 2018.

176. Institute Of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press; 2001.

177. Savage V, Castro A. Measuring mistreatment of women during childbirth: a review of terminology and methodological approaches. *Reprod Health*. 2017;14(1):138. doi:10.1186/s12978-017-0403-5

178. Ayers S. Thoughts and Emotions During Traumatic Birth: A Qualitative Study. *Birth*. 2007;34(3):253-263. doi:10.1111/j.1523-536X.2007.00178.x

179. Smythe E. The violence of the everyday in health care. In: Diekelmann N, ed. *First, Do No Harm. Power, Oppression and Violence in Health Care*. Wisconsin: University of Wisconsin Press; 2002:164-203.

180. Lee Y, Seomun G. Role of compassion competence among clinical nurses in professional quality of life. *Int Nurs Rev*. 2016;63(3):381-387. doi:10.1111/inr.12295

181. Sacco TL, Ciurzynski SM, Harvey ME, Ingersoll GL. Compassion Satisfaction and Compassion Fatigue Among Critical Care Nurses. *Crit Care Nurse*. 2015;35(4):32-44. doi:10.4037/ccn2015392

182. Yao LY, Xiang ML, Ye ZH, et al. [Intervention study of compassion fatigue of oncology nurses in Balint group activities]. *Zhonghua Lao Dong Wei Sheng Zhi Ye Bing Za Zhi*. 2017;35(12):910-913. doi:10.3760/cma.j.issn.1001-9391.2017.12.007

183. Rua C, Body G, Marret H, Ouldamer L. [Prevalence of burnout among obstetrics and gynecology residents]. *J Gynecol Obstet Biol Reprod (Paris)*. 2015;44(1):83-87. doi:10.1016/j.jgyn.2013.12.001

184. Dewa CS, Loong D, Bonato S, Trojanowski L, Rea M. The relationship between resident burnout and safety-related and acceptability-related quality of healthcare: A systematic literature review. *BMC Med Educ*. 2017;17(1). doi:10.1186/s12909-017-1040-y

185. Iorga M, Socolov V, Muraru D, et al. Factors Influencing Burnout Syndrome in Obstetrics and Gynecology Physicians. *Biomed Res Int*. 2017;2017:1-10. doi:10.1155/2017/9318534

186. Vedam S, Stoll K, Martin K, et al. The Mother's Autonomy in Decision Making (MADM) scale: Patient-led development and psychometric testing of a new instrument to evaluate experience of maternity care. *PLoS One*. 2017;12(2):e0171804. doi:10.1371/journal.pone.0171804

187. Vedam S, Stoll K, Rubashkin N, et al. The Mothers on Respect (MOR) index: measuring quality, safety, and human rights in childbirth. *SSM - Popul Heal*. 2017;3:201-210. doi:10.1016/j.ssmph.2017.01.005