AN INSTITUTIONAL ETHNOGRAPHIC EXPLORATION OF NURSES' WORK IN LABOUR AND DELIVERY

by ©Paula Kelly (Dissertation) submitted

to the School of Graduate Studies in partial fulfillment of the

requirements for the degree of

Doctor of Philosophy Faculty of Nursing

Memorial University of Newfoundland

January 2022

St. John's, Newfoundland and Labrador

Abstract

Background: Although intermittent auscultation during low-risk labour is recommended (Society of Obstetricians and Gynaecologists Canada, 2007, 2018, 2020), nurses often use continuous electronic monitoring to assess fetal heart rate during the intrapartum period irrespective of women's risk levels. Electronic fetal monitoring confines women to the birthing bed, thus preventing positions and movements that leverage gravity in the natural progress of labour. Its routine use also increases the risk of adverse effects of instrumental vaginal and surgical births. While some nurse researchers have examined barriers to the implementation of best practice guidelines during fetal health surveillance, research exploring the associated broader social forces to gain a deeper understanding of nurses' work in labour and delivery, has not yet been conducted.

Purpose: The purpose of this dissertation research was to gain insight into nurses' work by examining how nurses carry out fetal health surveillance, particularly how and why nurses choose to use continuous electronic fetal monitoring. The specific research questions were: *What are the everyday experiences of labour and delivery nurses related to fetal health surveillance? What social relations organize and influence how labour and delivery nurses conduct fetal health surveillance?* Answering these questions is the critical first step in promoting best practices in the nursing care of labouring women.

Methods: An institutional ethnographic study was conducted in a labour and delivery unit. Data sources included documents (e.g., national practice guidelines, unit policies, and patient chart forms), semi-structured interviews of inter-disciplinary practitioners,

and participant observation. Data analysis included indexing, mapping, and writing accounts.

Findings: Powerful textually-mediated ruling relations organize and influence nurses' work. Notably, biomedical and medical-legal discourses infiltrate the "boss text" (i.e., national practice guidelines) and establish an ideological space that influences fetal health surveillance policies and procedures (e.g., electronic fetal monitoring). Nurses' everyday work decisions are shaped by organizational texts (i.e., patient chart forms) that require considerable time devoted to documentation of biophysical data (e.g., fetal heart rate) and limit focus on holistic nursing care practices.

Conclusions: Labour and delivery nurses are choosing continuous electronic fetal monitoring over intermittent auscultation to fulfill mandated documentation requirements that are regulated by biomedical and medical-legal discourses. Documentation reflects the influence of these discursive ruling relations—primarily the valuing of biomedical, technological interventions over supportive nursing care measures and safeguarding the institution against risk of litigation.

Acknowledgements

There are many people who helped me make this dissertation journey a reality. I want to thank my PhD supervisory committee Dr. Caroline Porr, Dr. Nicole Snow, and Dr. Maggie Quance. Each of you contributed in unique and special ways. Dr. Caroline Porr, thank you for introducing me to institutional ethnography and the scholarly work of Dorothy Smith. Your attention to detail, continued support, and guidance, helped me maintain focus throughout my doctoral journey. I also wish to thank Drs. Nicole Snow and Maggie Quance for their expert knowledge and understanding of institutional ethnography, their commitment, guidance, and patience as I progressed through my data collection, analysis, and for their ongoing feedback as I wrote my dissertation.

Thank you to the funding agencies NL Support, the College of Registered Nurses Association and the Canadian Nurses Foundation. To all the participants who took part in this study, a very special thank you. Without your participation, my research would not have been possible.

To my husband Steve for all your support, encouragement, and positive thoughts as I worked through this doctoral journey. You were always there to listen. I am forever grateful for your assistance and knowledge of computer technology, especially, as I developed my maps and figures!

To my parents Lloyd and Catherine who taught me to never give up and that hard work will eventually pay off. To Ann and David, a big thank you for your constant encouragement and to Peter, who was always there in spirit.

To my colleagues, April, Kathleen, Jill, and Darlene, thanks for your continuous encouragement and the great chats over lunch and coffee.

To my very special friend Janet, thank you for your inspiration, kindness, and generosity.

Thank you to my competitive swimming coach who taught me at a very young age the importance of repetition, perseverance, and tenacity. Having these skills proved invaluable to me as I completed this dissertation.

And finally, to Flynn and John who inspire me every day to be my best and I hope that one day you will see the light. Much love to you both.

Table of Contents

List of Tables and Figures

Chapter One

Introduction

This introductory chapter 'sets the stage' by presenting the components of this manuscript style dissertation. Unlike the traditional style, the manuscript style thesis consists of five components—the introduction, followed by three articles that are prepared for publication (i.e., the second, third and fourth chapters), and a conclusion. I begin this introductory chapter with the background, detailing why and how I pursued nurses'[1] work as my dissertation research topic. Also provided are thorough descriptions of key terms (i.e., *nurses' work* and *fetal health surveillance*). I then present the research purpose before briefly outlining the aims and nature of each of the three articles within which I include the research questions, methodology, and key findings. In the final chapter, Chapter 5, I conclude with a synopsis of the dissertation research findings and the implications for nursing practice, education, and future research.

Background

This research at the doctoral level was borne out of my experiences as a registered nurse and as a nurse educator. As a labour and delivery nurse, I cared for many women as they laboured and gave birth to their children. I worked in birthing units of both tertiary care centers and community hospitals. I was accustomed to using hands-on approaches to assist women to cope with the pain of labour and when listening to and monitoring their babies, all with the aim to ensure safe and positive labour and birth experiences. A

[1] Although feminine pronouns "she" and "her" are used more frequently, nurses in this dissertation represent masculine or feminine gender norms and may include gender nonconforming.

pivotal point for me in deciding to pursue this research, stemmed from the time I returned to work following a maternity leave and began working as a nurse educator teaching an undergraduate maternity course. I became frustrated because as I educated undergraduate nurses about normal birth and the vital role of the nurse in supporting women through this exciting time, the students and I witnessed many women on the birthing unit in active labour and appearing to be lying comfortably, but almost immobile in the birthing bed. Labouring women were connected to tubes, wires, and machinery, and with intravenous lines infusing fluids and, or, medications. Students shared how their labour and birth practicum rotation entailed sitting in the birthing room and learning how to interpret graphic printouts of the electronic fetal monitor (EFM) that was continuously connected to labouring women. I noted, too, how the EFM machine appeared to be the major focus of attention of nurses as they cared for their labouring patients. I wondered why so many *healthy* women were connected to the continuous EFM (CEFM[2]) despite evidence (i.e., Cochrane reviews) not supporting this practice (Alfirevic et al., 2017; Devane et al., 2017); rather, evidence tells us routine use of CEFM is correlated with rising rates of instrumental vaginal and surgical births (Devane et al., 2017).

Further investigation revealed that the Society of Obstetricians and Gynaecologists Canada (SOGC) guidelines (Dore & Ehman, 2020; Liston et al., 2007, 2018) recommend the use of intermittent auscultation (IA) for all women in low-risk labour. IA involves listening periodically (i.e., every 15-30 minutes) and evaluating the

[2] Continuous electronic fetal monitoring will be represented as CEFM throughout this dissertation and refers to the continued use of the electronic fetal monitor machine.

fetal heart rate with a handheld device to assess fetal well-being and at the same time uterine contractions are palpated by hand. The use of IA during labour provides women freedom of movement, position change, and upright positioning, all known to assist with the stages of labour (Lawrence et al., 2013). IA also offers opportunity for support along with assessment of other biophysical considerations such as maternal skin tone, temperature, and direct fetal movements (Lewis & Downe, 2015).

Year after year, I taught students evidence-informed practice techniques for assessing fetal well-being during low-risk labour. However, I rarely witnessed the use of IA by labour and delivery nurses. I found myself more and more concerned with the actual role nurses were assuming—a role that is not consistent with published best practice guidelines. If today's reality consists of nurses being absent from the bedside and focused on technology, then what does this say about nurses' work? I wondered "what is really going on here?" I concluded that an investigation was warranted to uncover the external and underlying factors that influence labour and delivery nurses to carry out fetal health surveillance as they do. Shining the light on fetal health surveillance is a first step in elucidating multiple influences that may be motivating and directing how nurses do their labour and delivery work.

Nurses' Work

Since undertaking this doctoral research study to address my queries, I have come to understand that the nurse's role exemplifies nurses' work. The literature is replete with diverse descriptions of competing roles and responsibilities and depicted in the descriptions is the immense complexity. For example, nurses' work is conceptualized as

involving cognitive work (Potter et al., 2005), completing tasks (Allen, 2007; Bottoroff & Morse, 1994; Wolf et al., 2006), subjective and objective body work (Cameron, 2006; Fisher, 2009; Hartrick Doane & Varcoe, 2015, 2021; Liaschenko, 2002; Sakalys, 2006; Thorne et al., 1998), emotional work (Hochschild, 1979; Hunter & Smith, 2007), managing the work of others (Allen, 2007; Urban, 2013), organizing work (Allen, 2014), and finally, managing interruptions to their work (Sorensen & Hall, 2011; Sorensen & Brahe, 2013; Tucker & Spear, 2006; Westbrook et al., 2010). All the above, however, are presented in a discrete and distinct manner that portrays nurses' work as siloed, disconnected, and failing to capture how each element influences, operates, and perhaps drives nursing work decisions. And as such, one is left questioning: how does nurses' work 'happen' as it does? More specifically, how does nurses' work happen within the complex labour and delivery environment?

My ontological stance aligns with Bhaskar's (1989) critical realism. Critical realists view the world as *observable.* The world as we know and understand it is constructed from our perspectives and experiences, through what is observable. According to critical realists, unobservable structures cause observable events and the social world can be understood only if people understand the structures that generate these events. Critical realists believe that these underlying unobservable social structures and forces enable or constrain one's ability to act in certain ways. Constructivism is my epistemological approach which fits well with critical realism.

Based on my ontological and epistemological views, I wanted to conduct an exploration of nurses' work within labour and delivery units. While some nurse

researchers have examined barriers to the implementation of best practice guidelines during fetal health surveillance, research exploring the associated broader social forces coordinating nurses' work in labour and delivery has not yet been conducted. I knew I did not want to categorize, conceptualize, or theorize about nurses' work; rather, I wanted to understand nurses' work by staying close to the data gathered about everyday work experiences and by examining and presenting the facts. Thus, I chose to conduct an institutional ethnography (IE) which is a systematic, empirical method of exploration developed by Dorothy Smith, a Canadian feminist sociologist (Smith, 1987, 2005, 2006). IE reveals how things work—with major emphasis on how they are *actually* put together as opposed *to what* or *why* things happen (Smith, 1987). IE is a social exploration of how people's lives are coordinated or shaped by influences that are outside the purview of one's knowledge and everyday experience. The methodology involves learning from people about how activities are coordinated and 'regulated to occur' as they go about their daily lives. People, like nurses, are often not aware how social institutions, their organization, power structures, and practices, influence everyday work (Campbell & Gregor, 2008). Carrying out IE research enables researchers to learn, to see, to hear, and to understand what people are doing in their everyday lives. Researchers can then begin to assemble how separate everyday occurrences are coordinated by external forces.

Smith (2005) refers to work in a "generous sense to extend to anything done by people that takes time and effort, that they mean to do, that is done under definite conditions and with whatever means and tools, and that they may have to think about it" (Smith, 2005, p. 151). Work referred to in this way speaks to the complex, intricate, and

sophisticated nature of nurses' work. Incorporated in Smith's definition are the behaviours involved in accomplishing and completing nurses' work, including identifying step by step what they did, why they did what they did, how they knew what to do, and the time it took to complete the work (Campbell & Gregor, 2008, Corman, 2018). Also illustrated are the knowledge, skills, and experiences involved in performing and executing specific forms of work.

Fetal Health Surveillance

One of the prominent forms of nurses' work in labour and delivery is fetal health surveillance given the emphasis on a "safe" delivery for both the woman and the fetus (Dore & Ehman, 2020). Normally a healthy fetus has enough oxygen reserves within the uterus to tolerate the stress of labour contractions. However, fetal oxygen reserves can be reduced at any point during the pregnancy and birthing process, either suddenly or chronically, causing fetal acidosis. Hence, fetal health assessment and surveillance are recommended during the intrapartum period by the SOGC (Dore & Ehman, 2020;Liston et al., 2007, 2018). Fetal health surveillance can be performed by either nurses, physicians, or midwives; however, most often the responsibility remains with labour and delivery nurses (Association of Women's Health Obstetric, and Neonatal Nurses [AWHONN], 2015; Canadian Nurses Protective Society [CNPS], 2002) and is a critical aspect of their work.

Fetal health surveillance can be accomplished through two methods: IA and EFM. IA involves listening to and counting the fetal heartbeat at specified intervals to assess fetal well-being during labour, as well as assessment of uterine activity through palpation

(Dore & Ehman, 2020). IA is performed using a fetoscope, a Doppler, or a Pinard stethoscope (Rivard & Morin, 2017). Because there are no connecting cables, the IA method facilitates women's freedom of movement, position changes, and allows for showers and baths during stages of labour.

Electronic Fetal Monitoring

Monitoring fetal well-being during the intrapartum period has evolved significantly since its inception in the 19th century when Francois-Isaac Mayor placed his naked ear on the women's abdomen to hear fetal heart sounds (Chez et al., 2000; Schmidt & McCartney, 2000). This practice was replaced when De Kergaradec, a French physician, noted how the use of a basic stethoscope amplified the fetal heartbeat while excluding other sounds (Chez et al., 2000), and suggested that listening occasionally could be diagnostically useful (Schmidt & McCartney, 2000). In 1848, Killian developed the first fetal heart auscultation guidelines, stating the normal range of the heart rate was 100-180 beats/minute. Schwartz, a German scientist, began listening to fetal heart sounds during and after uterine contractions and determined changes in heart rate indicated reduced blood flow to the fetus (Schmidt & McCartney, 2000) and decreased fetal oxygenation (Goodlin, 1979). In 1917, the DeLee Hillis fetoscope (designed explicitly for auscultation of the fetal heart) improved clinician capacity to hear fetal heart sounds dramatically (Goodlin, 1979).

During the late 1950s and 1960s, technology advanced further with the invention of electronic monitoring devices (e.g., the EFM). Dr. Hon from Yale University first identified fetal distress by monitoring the fetal heart rate continuously using an

ultrasound transducer through the mother's abdomen that produced a graphic printout (Hon, 1960). This brought about the development of the EFM, the use of which claimed to provide clinicians with the knowledge to reduce perinatal morbidity and mortality (Sandleowski, 2000). It was marketed as a scientific breakthrough that could predict fetal distress and bring an end to cerebral palsy (Sartwelle & Johnston, 2016). The EFM was introduced into hospitals in the 1970s (Stout & Cahill, 2011) without evidence from clinical trials but with a strong marketing push from the monitoring industry (Obladen, 2018). For example, nurses were advised by hospital administrators and physicians to emphasize the value of using the EFM to women so as to make these monitors a secure investment for health care institutions (Rice, 1972). Sandelowski (1997) explained how labour and delivery nurses were key in marketing the technology. Nurses provided information for labouring women on the use and significance of EFM. Concurrently, though, Rice (1972), who was a nursing instructor of maternity nursing at the University of Illinois was cautioning labour and delivery nurses that physical comfort measures were more difficult to provide to labouring women due to EFM attachments.

The EFM involves a machine with two separate transducers. An ultrasound transducer (external) records the fetal heart rate and the toco-transducer records uterine activity trans-abdominally (Rivard & Morin, 2017). The EFM can also monitor both the fetal heart rate and uterine activity using components inserted into the woman's body, but they tend to be more invasive for the fetus (i.e., internal spiral electrode[3]) and the woman

[3] A spiral electrode is inserted through the vagina onto the fetal presenting part to monitor the fetal heartbeat.

(i.e., intrauterine pressure catheter[4]). The fetal heart rate and uterine activity are simultaneously recorded in the machine's hard drive and made available on a graphic printout which is interpreted and classified (usually by the nurse) at specified intervals during labour (Dore & Ehman, 2020).

Labour and delivery nurses can assess the fetal heartbeat by listening to fetal heart sounds that are projected through built-in speakers and by 'glancing' at the graphic printout. The EFM machine is especially helpful in locating and hearing fetal heart tones that are otherwise difficult to hear through auscultation (e.g., due to the position of the fetus or to significant obesity). Rapid detection of the fetal heart sounds decreases the time required for nurses to locate fetal heart tones but may also result in less time devoted to the labour support needs of women in their care. Moreover, connection to the EFM can prove detrimental for both mother and fetus.

Negative Effects. CEFM requires that women be restricted to the birthing bed and as such are prevented from using upright positions, movements (e.g., swaying back and forth, rocking, or bouncing on birthing ball) or other measures and supports (Alfirevic et al., 2017; Hollins-Martin & Martin, 2013) that are evidenced-based practices known to aid the progress of labour (Simkin, 2007).

CEFM is associated with high false positive rates of fetal distress and inconsistent interpretation of fetal heart patterns which prevent accurate prediction of fetal hypoxia (Graham et al., 2014; Tekin et al., 2008). This is likely a result of the EFM being

[4] The intrauterine pressure catheter is introduced into the uterine cavity through the vagina to measure intrauterine pressure changes.

introduced into clinical practice without evidence to support its use to detect fetal hypoxia/asphyxia (Balayla & Shrem, 2020). Consequently, routine practice of CEFM has been associated with women being subjected to unnecessary instrumental vaginal or surgical birth, primarily, cesarean delivery (Alfirevic et al., 2017; Devane et al., 2017; Paterno et al., 2016; Small et al., 2020).

Disturbingly, instrumental vaginal birth and cesarean delivery are linked to maternal and infant complications. Instrumental vaginal birth exposes women to vaginal trauma, postpartum hemorrhage, urinary tract injury, as well as damage to perineal muscles and the anal sphincter (O'Mahony et al., 2010). Infants born via instrumental vaginal birth are at increased risk for shoulder dystocia, subgaleal hemorrhage, facial palsy, corneal abrasion, retinal hemorrhage, skull fracture, intracranial hemorrhage, and cervical spine injury (O'Mahony et al., 2010). While cesarean delivery can be a lifesaving surgical procedure for mother, infant, or both, women are at an increased risk for ruptured uteri, unplanned hysterectomies, receipt of blood transfusions, admissions to intensive care units (Curtin et al., 2015; Sandall et al., 2018), post-operative infections (Karlström et al., 2013), and limited options for subsequent pregnancies and births due to the risk of uterine rupture (Jansen et al., 2013). Similarly, infants born via cesarean delivery are at imminent risk for developing respiratory distress, admission to the neonatal intensive care unit, and hypoglycemia. Later, there are concerns with delayed maternal bonding and breastfeeding complications that can lead to discontinuation of breastfeeding or choosing not to breastfeed (Jansen et al., 2013; Karlström et al., 2013).

There is also evidence indicating that non-vaginal birth can impact the development of the infant's immune system (Neu & Rushing, 2011).

CEFM is only recommended for women in high-risk labour or for women at high risk for adverse perinatal outcomes (Dore & Ehman, 2020; Rivard & Morin, 2017). Although IA is an evidenced-based recommendation for all women in low-risk labour (Dore & Ehman, 2020; SOGC, 2020), in practice, CEFM continues as the primary method of fetal health surveillance, despite risk level, in many high-income countries including Canada (AWOHNN, 2018; Chuey et al., 2020; Public Health Agency of Canada [PHAC], 2009; Snelgrove-Clarke et al., 2015; Ward et al., 2016). However, even the recommendation for the use of the CEFM in women who are at risk for poor perinatal outcomes is debatable in light of results of a recent systematic review that found no evidentiary support that the use of CEFM in intrapartum practice improves perinatal morbidity, mortality, and neonatal status (Small et al., 2020). Out of the nine randomized controlled trials and the 26 non-experimental studies included in the review, the reviewers found no statistically significant differences in perinatal mortality rates. Moreover, CEFM during preterm labour was associated with a higher incidence of cerebral palsy. The reviewers concluded that based on meta-analyses of the empirical evidence, CEFM during the intrapartum period does not improve perinatal outcomes among at-risk labouring women.

What is Known: Clues from the Literature

It is not clear as to why labour and delivery nurses persist on using CEFM as the primary method to assess fetal well-being during low-risk labour despite current evidence

and recommendations. The literature offers some clues as to what could be influencing their decisions to perform fetal health surveillance in the way that they do.

The lack of hospital policies endorsing the use of IA, inadequate physician support, and poorly functioning IA equipment, have been reported as significant factors strongly influencing nurses' decisions to use IA as a method of assessing fetal well-being (Chaillet et al., 2007; Patey et al., 2017; Smith, et al., 2012; Snelgrove-Clarke, etal., 2015). Clinical disagreements between physicians and nurses also negatively influence the use of IA (Simpson & Lyndon, 2009). Most labour and delivery nurses have knowledge of the best evidence and practice guidelines; however, some physicians believe CEFM is superior to IA and generally nurses are reluctant to challenge physicians' wishes.

Litigation concerns are also highlighted as factors in the decision to not use IA (Borg, 2003; Canadian Nurses Protective Society, 2002; Chaillet et al., 2007; Smith et al., 2012). Some obstetricians and labour and delivery nurses believe the graphic paper printout, or tracing, generated by CEFM, provides "hard evidence" or "proof" that the baby was not compromised while under their care and ultimately protects them against legal action. Resistance to change can also be attributed to the decision not to use IA (Snelgrove-Clarke et al., 2015). Longstanding, trusted, and entrenched practices require adequate time to change. Labour and delivery nurses will continue to employ those fetal health surveillance methods that they are most comfortable using. Conversely, senior and more educated labour and delivery nurses are likely to use IA more often than less experienced nurses (Chaillet et al., 2007). Moreover, the use of central monitoring allows

for nurses to care for several labouring women simultaneously (Chaillet et al., 2007; Smith, et al., 2012) and possibly easing the workload, especially in low staffing situations. Epidurals, when used as a means to reduce pain during labour and birth, also deter the use of IA among women in low-risk labour (Smith et al., 2012). Interestingly, according to the SOGC (Liston et al., 2018) *Fetal Health Surveillance Intrapartum Consensus* guideline, CEFM is not necessary, yet, often, anesthesiologists prefer the use of CEFM regardless of SOGC recommendations. Finally, the belief that women prefer CEFM because it decreases their anxiety and reassures them during labour, is also cited as a major factor perpetuating the use of CEFM over IA (Chaillet et al., 2007; Snelgrove-Clarke et al., 2015).

Research Purpose

The purpose of this doctoral research study was to gain insights related to *how* nurses' work in labour and delivery is organized to happen as it does. To achieve this understanding of the social organization of nurses' work, I focused on a fundamental component of the nursing role and responsibility during labour and birth—fetal health surveillance. Investigating fetal health surveillance was the means by which I gained understanding of the broad social forces organizing nurses' work in labour and delivery.

Fetal health surveillance exemplifies and reflects the practice behaviours that labour and delivery nurses perform on a regular, everyday basis. Choosing CEFM over IA as a method of fetal health surveillance is but one example of the plethora of complex decision-making processes in this clinical practice area. Hence, I was able to expand on what is currently known regarding fetal health surveillance by uncovering the complexity

and multiple influences which guide decisions and in so doing draw from this 'case exemplar' insights into the factors that essentially underpin nurses' work in labour and delivery.

IE methodology enabled extensive exploration of fetal health surveillance practices. The study was conducted within a tertiary care center that provides obstetrical care for high- and low-risk pregnant and labouring women in the province of Newfoundland and Labrador. Each year there are approximately 2,500 births in the province. The labour and delivery unit features a four-bed triage room, eight labour and birth rooms, two operative rooms for surgical births, and a neonatal intensive care unit. Medical and nursing staff comprise registered nurses, obstetricians, obstetrical residents, anesthetists, along with medical students and nursing students.

The study was conducted from the standpoint[5] of labour and delivery nurses and began with their everyday fetal health surveillance work involving women in low-risk labour. Given that the purpose of this study was to understand the social organization of nurses' work, key informants consisted of nurses and other health care providers at the local level as well as personnel from unit management teams, quality, risk, and patient safety personnel, the provincial perinatal educator, a representative from a national multidisciplinary professional organization, and a nurse representing a national perinatal organization. The sample characteristics are described, below, in Table 1.

[5] Further description of standpoint is provided in Chapter 2.

Table 1

Sample Characteristics

Professional Designation	**N=**
Labour and Delivery Nurses	5
Obstetricians	4
Obstetrical Residents	4
Family Medicine Physician	1
Women's Health Program Educational Personnel	3
Quality Risk and Patient Safety Personnel	2
Nursing Management Personnel	2
National Multidisciplinary and Perinatal Personnel	2

Rigour was maintained by ensuring methodological congruence between the theoretical underpinnings and the research design as outlined by Smith (2005). I adhered to several methodological principles, including, for example, maintaining nurses' standpoint and remaining grounded in the data through an iterative approach during data collection and analysis. I met regularly with my supervisory committee to verify my emerging findings and I also maintained a reflexive journal (see Chapter 5) as I collected and analyzed the data. This journal was especially important because as a labour and delivery nurse I approached the study as an insider with embodied knowledge of the practice area.

Dissertation Format

As previously mentioned, this manuscript style thesis comprises three articles that will be prepared for publication. Chapter 2 (article 1) is a methodological article within which I provide a detailed description of IE, including the origins, and key tenets and terms. I conclude the chapter by sharing how IE facilitated my ability to acquire valuable insights as I conducted exploration of nurses' work within the labour and delivery environment.

Chapter 3 (article 2) discusses IE methodology, the study design, and the research findings. The data of interest in article 2 were derived from the standpoint of nurses, namely their descriptions of the everyday realities (i.e., local level findings) of the actual work they perform in the labour and delivery unit. Data were obtained through interviews, participant observations, and field notes, and, by reviewing documents. Document analysis, mapping, indexing, and writing accounts were techniques I used to interpret the data. I discovered that everyday nursing tasks such as completing the partogram flowsheet (a commonly used form of patient documentation in labour and delivery), are prompted and regulated by external forces or what IE researchers describe as "ruling relations." By completing the partogram flowsheet, the nurse engages the biomedical and medical-legal discourses that are aimed at safeguarding the fetus, but which ultimately, shift the nursing focus off the holistic support needs of labouring women.

Chapter 4 (article 3) reports on the research findings that addressed the research question: *What social relations organize and influence how labour and delivery nurses*

conduct fetal health surveillance? Higher level findings are presented in this article that signify the extra-local, *bigger picture* ruling relations which are positioned outside the boundaries of the local unit level. Specifically, I explicate the broader social forces of biomedical and medical-legal discourses that are textually mediated (i.e., through the completion of the partogram flowsheet). An intertextual hierarchy that was uncovered during my IE exploration, is presented to explain how textual mediation serves to coordinate the actions (i.e., work) of labour and delivery nurses.

Finally, Chapter 5, the last chapter of this dissertation, is a discussion of my findings as presented in both articles (Chapters 3 and 4), as aforementioned. Several implications are brought to the reader's attention to inform recommendations for change in nursing practice and education and to stimulate further research.

Funding for this dissertation research was provided by a grant obtained from Newfoundland and Labrador's Support for People and Patient-Oriented Research and Trials Unit (NL SUPPORT), and, from research and scholarship awards from the College of Registered Nurses of Newfoundland and Labrador and the Canadian Nurses Foundation.

References

Alfirevic, Z., Devane, D., Gyte, G. M. L., & Cuthbert, A. (2017). Continuous cardiotocography (CTG) as a form of electronic fetal monitoring (EFM) for fetal assessment during labour. *Cochrane Database of Systematic Review, (2),* Article CD006066. https://doi.org/10.1002/14651858.CD006066.pub3

Allen, D. (2007). What do you do at work? Profession building and doing nursing. *International Nursing Review*, 54(1), 41–48. https://onlinelibrary.wiley.com/doi/10.1111/j.1466-7657.2007.00496.x

Allen, D. (2014). Re-conceptualising holism in the contemporary nursing mandate: From individual to organizational relationships. *Social Science and Medicine (119),* 131–138. http://dx.doi.org/10.1016/j.socscimed.2014.08.036

Association of Women's Health Obstetric and Neonatal Nurses (AWHONN) (2015). AWHONN position statement: Fetal heart monitoring. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 44(5),* 683–686. http://doi.org/10.1111/1552-6909.12743

Association of Women's Health Obstetric and Neonatal Nurses (AWHONN) (2018). Fetal heart monitoring. *Journal of Obstetrics Gynecological and Neonatal Nursing, 44*(5), 683–686.

Balayla, J., & Shrem, G. (2020). Solving the obstetrical paradox: The fetal technique-a step toward noninvasive evaluation of Fetal pH. *Journal of Pregnancy*, Article 7801039. https://doi.org/10.1155/2020/7801039

Bhaskar, R. (1989). The possibility of naturalism: A philosophical critique of the contemporary sciences. Routledge.

Borg E. (2003). Intermittent auscultation of the fetal heart rate. *The Canadian Nurse, 99*(8), 40–41. www.cnps.ca.

Bottorff, J. & Morse, J. (1994). Identifying types of attending: Patterns of nurses' work. *Journal of Nursing Scholarship, 26*(1), 53–60. https://doi.org/10.1111/j.1547-5069.1994.tb00294.x

Cameron, B. L. (2006). Towards understanding the unpresentable in nursing: Some nursing philosophical considerations. *Nursing Philosophy: An International Journal for Healthcare Professionals*, *7*, 23–35. https://doi.org/10.1111/j.1466-769X.2006.00246.x

Campbell, M. & Gregor, F. (2008). *Mapping social relations: A primer in doing institutional ethnography.* Higher Education University of Toronto Press.

Canadian Nurses Protective Society (CNPS) (2002). Obstetrical nursing. *InfoLAW 11*(1). https://cnps.ca/article/obstetrical-nursing/

Chaillet, N., Dube, E., Dugas, M., Francoeur, D., Dube, J., Gagnon, S.,…Dumont, A. (2007). Identifying barriers and facilitators towards implementing guidelines to reduce cesarean section rates in Quebec. *Bulletin of the World Health Organization,85*(10), 791-797. https://doi:10.2471/BLT.06039289

Chez, B., Harvey, M., & Harvey, C. (2000). Intrapartum fetal monitoring: Past, present, and future. *The Journal of Perinatal & Neonatal Nursing, 14*(3), 1–18. https://journals.lww.com/jpnnjournal/Fulltext/2000/12000/Intrapartum_Fetal_Monitoring_Past, Present, and.2.aspx

Chuey, M., De Vries, R., Dal Cin, S., & Low, L. K. (2020). Maternity providers' perspectives on barriers to utilization of intermittent fetal monitoring: A qualitative study. *Journal of Perinatal and Neonatal Nursing*, *34*(1), 46–55. https://doi.org/10.1097/JPN.0000000000000453

Corman, M. (2018). Driving to work: The front seat work of paramedics to and from the scene. *Symbolic Interactionism, 41*(3), 291–310. https://doi.org/10.1002/symb.335

Curtin, S. C., Gregory, K. D., Lorst, L. M., & Uddin, S. F. (2015). Maternal morbidity for vaginal and cesarean deliveries, according to previous cesarean history: New data from the birth certificates. *National Vital Statistics Report, 4*(4), 1–14. http://www.cdc.gov/nchs/data/nvsr/nvsr64_04.pdf.

Devane, D., Lalor, J. G., Daly, S., Mcguire, W., Cuthbert, A., & Smith, V. (2017). Cardiotocography versus intermittent auscultation of fetal heart on admission to labour ward for assessment of fetal wellbeing. *Cochrane Database of Systematic Reviews,(1)* Article CD005122. https://doi.org/10.1002/14651858.CD005122.pub5

Dore, S., & Ehman, W. (2020). No. 396. Fetal health surveillance: Intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada: JOGC 42*(3), 316–348.e9. https://doi.org/10.1016/j.jogc.2019.05.007

Fisher, M. (2009). 'Being a chameleon': Labour process of male nurses performing bodywork. *Journal of Advanced Nursing, 65*(12), 2668–2677. https://doi.org/10.1111/j.1365-2648.2009.05120.x

Goodlin, R. C. (1979). History of fetal monitoring. *American Journal of Obstetrics and Gynecology*, *133*(3), 323–352. https://doi.org/10.1016/0002-9378(79)90688-4

Graham, E. M., Adami, R. R., McKenney, S. L., Jennings, J. M., Burd, I., & Witter, F. R. (2014). Diagnostic accuracy of fetal heart rate monitoring in the identification of neonatal encephalopathy. *Obstetrics and Gynecology*, *124*(3), 507–513. https://doi.org/10.1097/AOG.0000000000000424

Hartrick Doane, G., & Varcoe, C. (2015). *How to nurse: Relational inquiry with individuals and families in changing health and health care contexts.* Wolters Kluwer.

Hartrick Doane, G., & Varcoe, C. (2021). *How to nurse: Relational inquiry in action* (2nd ed.). [electronic version]. Wolters Kluwer. https://thepoint.lww.com/Book/Show/944102

Hochschild, A. (1979). Emotion work, feeling rules, and social structure. *American Journal of Sociology, 85*(3), 551–575. http://www.jstor.org/stable/2778583

Hollins-Martin, C., & Martin, C. (2013). A narrative of maternal physical activity during labour and its effects upon length of first stage. *Complementary Therapies in Clinical practice,* 44–49. http://dx.doi.org/10.1016/j.ctcp.2012.09.001.

Hon, E. H. (1960). Apparatus for continuous monitoring of the fetal heart rate. *Yale Journal of Biology and Medicine, 32*(5), 397–399. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2604143/

Hunter, B., & Smith, P. (2007). Emotional labour-just another buzz word? *International Journal of Nursing Studies, 44*(6), 859–861. https://doi.org/10.1016/j.ijnurstu.2006.12.015

Jansen, L., Gibson, M., Carlson Bowles, B., & Leach, J. (2013). First do no harm: Interventions during childbirth. *The Journal of Perinatal Education, 22*(2), 83–92. http://dx.doi.org.10.1891/1058-1243.22.2.83.

Karlström, A., Lindgren, H., & Hildingsson, I. (2013). Maternal and infant outcome after caesarean section without recorded medical indication: Findings from a Swedish case-control study. *An International Journal of Obstetrics and Gynecology, 120*(4), 479–486. https://doi.org/10.1111/1471-0528.12129

Lawrence, A., Lewis, L., Hofmeyr, G. J., & Styles, C. (2013). Maternal positions and mobility during first stage labour. *The Cochrane Database of Systematic Reviews, (10),* Article CD003934. https://doi.org/10.1002/14651858.CD003934.pub4

Lewis, D. & Downe, S. (2015). FIGO consensus guidelines on intrapartum fetal monitoring: Intermittent auscultation. *International Journal of Gynecology and Obstetrics, 131*, 9–12. https://obgyn.onlinelibrary.wiley.com/doi/pdf/10.1016/j.ijgo.2015.06.019#:~:text=Advantages%20of%20intermittent%20auscultation&text=It%20facilitates%20the%20assessment%20of,fetal%20movements%2C%20and%20maternal%20contractions

Liaschenko, J. (2002). Thoughts on nursing work. *Journal of Nursing Administration, 32*(2), 69–70. http://www.mursingcenter.com

Liston, R., Sawchuck, D., & Young, R. (2007). SOGC Clinical practice guideline No. 197. Fetal health surveillance: Antepartum and intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada, 29*(9), S3–S56.

Liston, R., Sawchuck, D., & Young, R. (2018). Reaffirmed SOGC Clinical practice guideline No. 197b. Fetal health surveillance: Intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada 40*(4), e298–e322. https://doi.org/10.1016/j.jogc.2018.02.011

Neu, J., & Rushing, J. (2011). Cesarean versus vaginal delivery: Longterm infant outcomes and the hygiene hypothesis. *Clinics in Perinatology, 38*(2), 321–331. https://doi.org/10.1016/j.clp.2011.03.008

Obladen M. (2018). From "apparent death" to "birth asphyxia": A history of blame. *Pediatric Research, 83*(2), 403–411. https://doi.org/10.1038/pr.2017.238

O'Mahony, F., Hofmeyr, G. J., & Menon, V. (2010). Choice of instruments for assisted vaginal delivery. *The Cochrane database of systematic reviews*, *(11)*, Article CD005455. https://doi.org/10.1002/14651858.CD005455.pub2

Paterno, M. T., McElroy, K., & Regan, M. (2016). Electronic fetal monitoring and cesarean birth: A scoping review. *Birth*, *43*(4), 277–283. https://doi.org/10.1111/birt.12247

Patey, A.M., Curran, J., Sprague, A., Francis, J., Dreidger, M., Legare, F., …Grimshaw, J. (2017). Intermittent auscultation versus continuous fetal monitoring: Exploring factors that inlfuence birthing unit nurses' fetal surveillance practice using theoretical domains framework. BMC Pregnancy and Childbirth,17 (320), 1-18. https://doi:10.1186/s12884-017-1517-z.

Public Health Agency of Canada (PHAC) (2009). *What mothers say: The Canadian maternity experiences survey.* Cat.No. HP5-74/2-2009E-PDF.

Potter, P., Wolf, L., Boxerman, S., Grayson, D., Sledge, J., Dunagan, C., & Evanoff, B. (2005). Understanding the cognitive work of nursing in the acute care environment. *The Journal of Nursing Administration, 35*(7–8), 327–335.

Rice, G. T. (1972). Recognition and treatment of intrapartal fetal distress. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *1*(2), 15–22. https://doi.org/10.1111/j.1552-6909.1972.tb00538.x

Rivard, L. & Morin, F. (2017). Fetal health surveillance during labour. In S. Perry, M. Hockenberry, D. Lowdermilk, D. Wilson, L. Keenan-Lindsay, & C. Sams (Eds.), *Maternal child nursing care in Canada* (2nd ed., pp. 491–511). Elsevier Canada.

Sakalys, J. A. (2006). Bringing bodies back in: Embodiment and caring science. *International Journal of Human Caring, 10*(3), 17–21. https://web.b.ebscohost.com

Sandall, J., Tribe, R., Avery, L., Mola, G., Visser, G., Homer, C., Gibbons, D., Kelly, N., Kennedy, H., Kidanto, H., Taylor, P., & Temmerman, M. (2018). Short and longterm effects of cesarean section on the health of women and children. *The Lancet, 392*, Issue 10155, 1349–1357. https://doi.org/10.1016/S0140-6736(18)31930-5

Sandelowski, M. (2000). *Devices and desires: Gender technology, and American nursing.* The University of North Carolina Press.

Sandelowski, M. (1997). (Ir)reconcilable differences? The debate concerning nursing and technology. *The Journal of Nursing Scholarship, 29*(2), 169–174. https://doi.org/10.1111/j.1547-5069.1997.tb01552.x

Sartwelle, T., & Johnston, J. (2016). Cerebral palsy and electronic fetal monitoring: Rearranging the Titanic's deck chairs. *Journal of Childhood & Developmental Disorders*, *2*(13). https://doi.org/10.4172/2472-1786.100021

Schmidt, J. V., & McCartney, P. R. (2000). History and development of fetal heart assessment: A composite. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *29*(3), 295–305. https://doi.org/10.1111/j.1552-6909.2000.tb02051.x

Simkin, P. (2007). Comfort in labour: How you can help yourself to a normal satisfying childbirth. https://www.nationalpartnership.org/our-work/resources/health-care/maternity/comfort-in-labour-simkin.pdf

Simpson, K.R., & Lyndon A. (2009). A. Clinical disagreements during labor and birth: How does real life compare to best practice? *MCN,34* (1), 31-39. https://doi:10.1097/01.NMC.0000343863.72237.2

Small, K. A., Sidebotham, M., Fenwick, J., & Gamble, J. (2020). Intrapartum cardiotocograph monitoring and perinatal outcomes for women at risk: Literature review. *Women and Birth, 33*, 411–418. https://doi.org/10.1016/j.wombi.2019.10.002

Smith, D. E. (1987). *The everyday world as problematic.* Northeastern University Press.

Smith, D. E. (2005). *Institutional ethnography: A sociology for people*. Alta Mira Press.

Smith D. E. (2006) Incorporating texts into ethnographic practice. In D. E. Smith (Ed.). *Institutional ethnography as practice* (65–88). Rowman and Little Field Publishers.

Smith, V., Begley, C.M., Clarke, M., & Devane, D. (2012). Professionals' views of fetal monitoring during labour: A systematic review and thematic analysis. *BMC Pregnancy and Childbirth,12* (166), 1-9. www.biomedcentral.com/1471-2393/12/166

Snelgrove-Clarke, E., Davies, B., Flowerdew, G., & Young, D. (2015). Implementing a fetal surveillance guideline in clinical practice: A pragmatic randomized controlled trial of action learning. *Worldviews on Evidence-Based Nursing, 12*(5), 281–288. https://doi.org/10.1111/wvn.12117

Sorensen, E. & Brahe, L. (2013). Interruptions in clinical nursing practice. *Journal of Clinical Nursing, 23*(9–10),1274–1282. https://doi.org/10.1111/jocn.12329

Sorensen, E., & Hall, E. (2011). Seeing the big picture in nursing: A source of human and professional pride. *Journal of Advanced Nursing, 67*, 2284–2291. https://doi.org/10.1111/j.1365-2648.2011.05639.x

Society of Obstetricians Gynaecologists Canada (SOGC) (2020). Choosing Wisely Canada: In Collaboration with the Canadian Medical Association. *Obstetrics and gynaecology: Twelve things physicians and patients should question.* https://choosingwiselycanada.org/wp-content/uploads/2020/10/Obstetrics-and-gynaecology_EN_2020.pdf

Stout, M. J., & Cahill, A. G. (2011). Electronic fetal monitoring: Past, present, and future. *Clinics in Perinatology, 38*(1), 127–142. https://doi.org/10.1016/j.clp.2010.12.002

Tekin, A., Özkan, S., Çalişkan, E., Özeren, S., Çorakçi, A., & Yücesoy, I. (2008). Fetal pulse oximetry: Correlation with intrapartum fetal heart rate patterns and neonatal outcome. *Journal of Obstetrics and Gynaecology Research, 34*(5), 824–831. https://obgyn.onlinelibrary.wiley.com/doi/10.1111/j.1447-0756.2008.00850.x

Thorne, S., Canam, C., Dahinten, S., Hall, W., Henderson, A., & Reimer Kirkham, S. (1998). Nursing metaparadigm concepts: Disimpacting the debates. *Journal of Advanced Nursing, 27*(6), 1257–1268. https://doi.org/10.1046/j.1365-2648.1998.00623.x

Tucker, A., & Spear S. J. (2006). Operational failures and interruptions in hospital nursing. *Health Services Research, 41*(3p1), 643–662. https://pubmed.ncbi.nlm.nih.gov/16704505/

Urban, A.M. (2013). Taken for granted: Normalizing nurses' work in hospitals. *Nursing Inquiry*, *21*(1), 69–78. https://onlinelibrary.wiley.com/doi/abs/10.1111/nin.12033

Ward, S. L., Hisley, S. M., & Kennedy, A. M. (2016). *Maternal-child nursing care: Optimizing outcomes for mothers, children, and families*. F.A. Davis Company.

Westbrook, J. I., Woods, A., Rob, M. I., Dunsmuir, W. T. M., & Day, R. O. (2010). Association of interruptions with an increased risk and severity of medication administration errors. *Archives of Internal Medicine*, *170*(8), 683–690. https://doi.org/10.1001/archinternmed.2010.65

Wolf, L. D., Potter, P., Sledge, J. A., Boxerman, S. B., Grayson, D., & Evanoff, B. (2006). Describing nurses' work: Combining quantitative and qualitative analysis. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, *48*(1). https://doi.org/10.1518/001872006776412289

Chapter Two

Institutional Ethnography: An Essential Tool for Nursing Research

This chapter is the first article of the dissertation and focuses on the methodology of institutional ethnography (IE). The origins (i.e., how IE came to be) and tenets of IE are discussed along with key terms. The objectives of this article are to provide an in-depth description of IE and to highlight and demonstrate that IE methodology is an essential tool for nursing research. I begin by sharing my work experiences as a labour and delivery nurse and as a nurse educator, experiences that became the impetus for pursuing an IE doctoral research study.

Grappling with Current Practice

I launched my nursing career as a labour and delivery nurse and practiced in the clinical setting for 10 years. Throughout that time period I worked in a university affiliated teaching hospital and in smaller community hospitals in two Canadian provinces. I gained a tremendous amount of knowledge and skill related to nursing women during pregnancy, labour, and labour progress. I especially acquired the knowledge and skills associated with supportive "hands-on" labour techniques designed to enhance labour progress. Supportive care included a variety of techniques; for example, hydrotherapy using warm showers was a primary relaxation tool when women's labour began to intensify. Many women found the warm water to be soothing and helped them relax as they experienced contractions. Various positions, such as standing, rocking, and leaning were encouraged as well. Needless to say, the labour and delivery units were

active and alive with the sounds of labouring and birthing women. It was easy to tell women were in labour!

In 2005, after completing a Master of Nursing Science degree, I left clinical nursing and began a teaching position in an undergraduate nursing program. I vividly remember the first day I began clinical instruction in the labour and delivery suite. As I entered the unit I noted it to be quiet and I immediately started thinking of other teaching strategies and activities to occupy the students as I assumed there were few women in labour. To my surprise, as I turned the corner and observed the inpatient labour progress board, the unit was full of women in various stages of labour. However, the majority of women were attached to intravenous tubes, wires, monitors, and epidural pumps. Some were sleeping, while others were sitting up in their birthing beds conversing and chatting. I was surprised and shocked, and questioned what had happened to the care of women in labour? Why are so many women attached to monitors and reclining in bed? Even though this institution (as the provincial tertiary care center offering care to both high and low-risk women) is the center for the majority of births in the province (P. Murphy, personal communication, June 19, 2020), I questioned why so many women received technological interventions. Was it possible that the majority of these women were considered high-risk and therefore required this level of technical care? As I reviewed the inpatient labour progress board, it appeared some women were healthy with no risk factors. How did these women come to be attached to the continuous electronic fetal monitor (CEFM) and restricted in position and movement when there is no research evidence to support this practice (Alfirevic et al., 2017; Devane et al., 2017)? In fact,

there is research evidence (Alfirevic et al., 2017) indicating that CEFM is associated with instrumental vaginal birth and cesarean delivery that impose risks for the labouring woman (Keag et al., 2018) and her baby (Peters et al., 2018). Nurses were very involved with the EFM machinery and this technology seemed to be a major focus.

This created unease for me because what I witnessed is a disconnect or a *disjuncture* (Smith, 1990a). I grappled with the contradiction between what I *actually saw happening* in the clinical setting versus what the evidence states is best practice (i.e., *what is supposed to happen*) (Campbell & Gregor, 2008; Smith, 1990a). This disjuncture experience became significant because it ignited a spark and compelled me to start my doctoral journey. I sought to discover what was happening with labour and delivery nursing practice. How do labour and delivery nurses make this decision regarding how to monitor fetal well-being when women are in low-risk labour which seems at odds with evidence-informed nursing practice?

My query was analogous to a jigsaw puzzle. A jigsaw puzzle consists of many small, irregular, geometric-shaped pieces, all designed to fit together to form a larger picture. As with any jigsaw puzzle, it is not immediately clear how pieces fit together; it takes time and critical examination to determine how they join together to form the image of *what is happening*. The multilayered, complex components that influence the practice decisions of labour and delivery nurses, and in particular, fetal health surveillance, are not apparent. Exploring how the fetal health surveillance jigsaw puzzle pieces fit together demands an inquiry into what is known, a discovery of the unknowns, and a description of how each piece connects, interconnects, or disconnects to provide an explanation of

what actually happens in practice. After much discussion and consultation with my supervisor, I decided to design an IE study to further explore nurses' work (Smith, 1987, 2005, 2006).

How Institutional Ethnography Came to Be

Dorothy Smith, a Canadian feminist sociologist, developed IE as a research methodology with the first seeds planted during her involvement in the women's movement in the 1970s. She spoke and wrote about her participation and how she and others experienced considerable exclusion from intellectual, political, or cultural aspects of society. The women's movement provided a common ground where women could come together and learn from each other. However, Smith noted that women did not always have the language or terminology to describe what they were experiencing in their lives, including some sharing that they felt they did not have a place in society—they "were invisible." The women's movement enabled Smith and other women to learn how to speak about and voice their experiences from bodily existence in their everyday worlds. They were soon developing a public language and naming the political experiences of oppression, rape, domestic violence, and sexism (Smith, 2005).

Smith was employed, at the time, as a sociologist within a male dominated department of an educational institution. Smith (1974) lamented she was taking up a sociology which was "put together by men" (p. 7). As such, she encountered a disjuncture between two worlds that she was concomitantly inhabiting—being a mother and engaging in domestic work while also being a professor of women's studies. The knowledge and work experiences she possessed as a mother were entirely separate from

the knowledge and work experiences as an academic. The two worlds did not mesh, something she referred to as the *bifurcation of consciousness* (Smith, 1987). She realized traditional sociology was of little relevance to her experiences as a woman and a mother who was also working and teaching in a university setting. Smith soon rejected the traditional positivist sociology in which she was schooled. She believed positivism objectified people, often, arbitrarily, while fitting individuals into categories which she believed was a "glossed over" attempt to explain human behaviour. Smith contended traditional sociology perpetuated women's oppression and was merely producing *ideology,* not *knowledge* (Smith, 1990b). Instead, Smith pursued a *sociology for women* (that later evolved into a *sociology for people*) or *alternate sociology*, defined as "a sociology in which we do not transform people into objects but preserve their experience as subjects" (Smith, 1986, p. 6) to account for people's knowledge-based work that is otherwise subjugated. In other words, the process of categorizing and standardizing people and their experiences results in missing the context and nuances of what is happening in everyday realities. The details get lost in the greater whole that, in fact, might not represent people in all areas of society. Smith continued to pursue an understanding of how the *social world* is organized by learning from people and discovering how their everyday lives are 'put together' and coordinated to happen as they do. This alternate sociology evolved into the research methodology known today as IE.

Tenets and Terms

Conducting an IE inquiry requires that researchers have a strong understanding of foundational tenets and terms because theoretical underpinnings and the method are

intricately interwoven and cannot be separated (Walby, 2007). IE is significantly informed by the writings of Karl Marx (Marx & Engels, 2008). Smith draws heavily on Marx's materialist theory: the focus is on the concrete, physical aspects of people's everyday activities instead of theorizing or conceptualizing how people's lives are socially organized (DeVault, 2006; Smith, 2005). The researcher begins with the actual, tangible everyday activities as opposed to the abstract or inferred meanings of people's behaviours. This is achieved by recognizing that participants (known as *informants*) are experts in, and knowledgeable of, what it is they engage in—their *work*. Work (or *doings*) is described as anything that takes time, effort, and thought in people's everyday happenings (Smith, 2005). The institutional ethnographer seeks to identify work processes and how work processes are socially organized[6] by uncovering links between the local setting and higher-level discourse (Ng et al., 2017). Embracing an understanding of terms such as *ruling relations*, *texts*, *standpoint,* and *problematic,* is integral to accomplishing the goals of IE research.

Ruling Relations and Texts

IE is also an empirical sociology in recognition that one's everyday actions are discursively coordinated by social institutions of ruling (or ruling relations) in society and mediated through texts (Smith, 2005). Ruling relations are the

> extraordinary yet ordinary complex set of relations that are textually-mediated, that connect us across space and time and organize our everyday lives—the

[6] Social organization is a key term in IE and refers to "the assumption that people's lives are socially organized to happen as they do. The material and reflexive coordination of people's actions, as observable and reproduced across time and place, establishes the social organization of people's experience" (Bisaillon, 2012, p. 618).

> corporations, government bureaucracies, academic and professional discourses, mass media, and the complex set of relations that interconnect them. (Smith, 2005, p. 10)

The aim of IE is to discover/uncover the ruling relations that "regulate, lead, and direct" society and one's social world (Smith, 1990b, p. 2). Texts are visible material links that connect and influence people (Bisallion, 2012) and can be written (e.g., books and other documents), oral (e.g., stories), computer generated (e.g., webpages), and visual (e.g., artwork). Textual images or data can be easily replicated across time and geography, and simultaneously appear in many places. It is the infiltration of these texts into people's everyday lives that create similar experiences at different sites. For example, a policy created in a company's head office in Canada directs the activities of individuals at worksites in North America, Europe, and Asia through guidelines and company policies which are interpreted and adopted to inform local organizational documents. Despite their potential institutional importance, texts are primarily considered routine, are often taken for granted, and can eventually become insignificant. In their everyday work people activate these texts, thus perpetuating the textual influence in often ordinary or unknowing ways (Rankin, 2014).

Texts provide traces or clues for explicating the link between the local and the extra-local setting. Governing or *boss texts* (Smith & Turner, 2014) come into play here. Boss texts are formulated at extra-local or superior levels and have a governing effect on how lower-level texts are written and interpreted at local subordinate sites. Higher level or boss texts are described as "a text or set of texts that supplies the context for what we

can see, hear, and know" (Bisallion, 2012, p. 610). Boss texts are often buried and concealed from view and can include policy documents, professional guidelines, government regulations, and so forth. As part of their hierarchical and directing nature, boss texts direct the activation of lower-level texts that influence work activities (Bisallion, 2012). National guidelines from the Society of Obstetricians and Gynaecologists of Canada (SOGC) related to fetal health surveillance (Dore & Ehman, 2020; Liston et al., 2007, 2018), for example, are boss texts that health care institutions can activate through policy development to inform and standardize local institutional unit documentation procedures (e.g., obstetrical patient charts). These, in turn, are regularly activated by nurses (e.g., completion of partogram flowsheets) when assessing and monitoring labour progress.

Moreover, texts embody discourse ideology and belief systems. Discourse, as defined by Mykhalovskiy (2002), refers to "the systematic way of knowing something that is grounded in expert knowledge and that circulates widely in society through language, including most importantly language vested in texts" (p.39). Discourse is reflected in the text(s) that people use and activate in their everyday work. Unknowingly, people "participate in discourse" and their participation "reproduces" the discourse. Smith (2005) explains:

> Translocal relations [coordinate] the practices of definite individuals talking, writing, reading, watching, and so forth, in particular places at particular times. People participate in discourse and their participation reproduces it. Discourse

> constrains what they can say or write, and what they say or write reproduces and modifies discourse. (p. 224)

Institutional discourse generally circulates throughout specific organizational settings in the form of texts that are used and completed by people in order to accomplish specific tasks (Teghtsoonian, 2015).

Standpoint and Problematic

Smith adopted principles from Harding's (2004) standpoint theory that initially emerged out of the 1970s and 1980s as a feminist critical theory. The feminist lens of consciousness-raising to explicate the social construction and social organization of knowledge (McCoy, 2008; Ng, Bisaillon, & Webster, 2017) and the relationship between knowledge and power, resonate with IE methodology. Institutional ethnographers assume that one's knowledge and view of the world are shaped by one's context and social situation; that is, where one 'stands' in the world. Depending on the standpoint taken, some forms of knowledge are visible and acknowledged while other forms are not. For example, nurses' knowledge of patients for whom they care is often different from what is known about the same patients by the attending physician. While both physicians and nurses are concerned with safety during the intrapartum period (Miltner, 2002), it is nurses who are more apt to have embodied knowledge of women's labour experiences (Draper, 2014). Whereas physicians have a leading role and are responsible for the overall management, care, and well-being of women's pregnancy and childbirth (Royal College of Physicians and Surgeons, 2019), physicians tend to manage childbirth from a medical, scientific epistemological approach (Draper, 2014). This could be influenced by

variances in regulatory documents shaping the structure of nursing and medical practice, or, based on siloed, disciplinary approaches to knowledge and what is considered to be relevant evidence. A nurse's experiences of labouring women are different from what an obstetrician knows, observes, records, and enters in the patient record. Likewise, personal knowledge and experiences of labouring women, themselves, are very different from what the health care team knows and observes (Downe et al, 2018; Häggsgård et al, 2021; Teghtsoonian, 2016). Being aware of and embracing standpoint as the entry point equips institutional ethnographers to position themselves in the shoes of those with the everyday expert knowledge of routine daily activities (Rankin, et al., 2010). People's experiences and knowledge offer hints that enable researchers to trace what happens in the regime of ruling (Rankin, 2017). Observing people while performing their work and how they activate routine texts provides material evidence of people's experiences (Rankin, 2014) and enables researchers to trace the connections between everyday work and ruling relations. In other words, standpoint theory, as applied in IE, fosters heightened awareness of particular positions within the institution and acknowledgment that "often those who are being ruled" are necessary in the inquiry (Campbell & Gregor, 2008, p. 16).

As previously mentioned, encountering labouring women attached to CEFM was a moment of disjuncture for me as I began my work as a clinical instructor. Later, as an IE researcher, I sought the standpoint of labour and delivery nurses to explore this disjuncture and began to fit the pieces of the puzzle together at the local setting. I began addressing the *problematic*. The problematic is a contradiction that exists between

official versions of what *should happen* versus observations of what *actually happens* within people's work and experiences (Bisallion, 2012; Campbell & Gregor, 2008; Ng et al., 2017). It is not the research problem or research question (Campbell & Gregor, 2008). The identification of a problematic is "to direct attention to a possible set of questions that may not have been posed or a set of puzzles that do not yet exist in the form of puzzles but are latent in the actualities of the experienced world" (Smith, 1987, p. 91). People can experience different versions of reality (e.g., knowing something from a ruling perspective versus an experiential one) (Campbell & Gregor, 2008). The contradiction I experienced was knowing the official guideline of the SOGC (i.e., CEFM is not recommended during low-risk labour) and observing labouring women connected to EFM wires, confined to their bed (i.e., in current practice many labouring women are being connected to CEFM).

IE proved to be an essential nursing research tool as I explored this contradiction. As an IE researcher I was able to illuminate realities about nurses' work in labour and delivery, including, as described below, the subordination of nursing knowledge and the invisible work of nurses. IE also provided the basis from which I was able to formulate recommendations for practice change.

Discovering the Subordination of Nursing Knowledge

Within the health care system not all standpoints are of equal status (Rankin & Campbell, 2009). Those with advanced knowledge or certain types of knowledge occupy positions of privilege. Such knowledge is institutionally sanctioned by those who exercise power through creation of standards and policies. Standards and policies are examples of

texts often developed by people in positions far removed from direct patient care. Smith (2005) describes how this creates a situation in which the local (i.e., patient care situations) becomes transformed to more closely embody values and ideas of the institution (Campbell & Jackson, 1992; Rankin & Campbell, 2009). For example, nurses actively translate their nursing knowledge to accommodate hospital forms and other institutional texts in labour and delivery, and, in so doing, align with the managerial agenda as opposed to focusing and documenting non-pharmacological measures that can enhance the birthing experience, reduce the experience of pain and apprehension, and empower women as they give birth. The institutional texts with which nurses work daily, preclude describing and documenting what is really going on with the patients for whom they care because their nursing actualities are not represented in the institutionalized forms nurses are required to complete.

For example, as I observed how nurses conduct fetal health surveillance, I noted how nurses continuously handle and refer to institutionalized patient chart forms and flowsheets. The flowsheet on the unit is constructed in such a way that nurses must obtain and record specified biophysical measures that are primarily focused on fetal well-being assessment as opposed to holistic support needs of the labouring woman. Remarkably, much of nurses' knowledge of what they *know* about women and *how* they expertly assist women during labour is notably absent from this flowsheet. Specifically, there are 11 coded supportive measures that nurses must choose from to represent actions other than those pertaining to the fetal heart rate, biophysical data, or biomedical interventions. Examples of the coded measures from which nurses choose include giving ice

chips/fluids and providing heat to the back, assistance with positioning and walking to the washroom, a change of linen, mouth care, checking the intravenous site every hour, ongoing support, and coaching. These coded measures fall short in accurately representing all the actualities and possibilities of everyday nurses' work involved in caring for their labouring patients. For example, nurses perform "spinning babies" and Leopold's maneuvers. Spinning babies encompasses the nurse guiding the patient through a series of movements and position changes to assist with labour progress and to encourage optimal fetal positioning for birth. Before spinning babies is performed, the nurse must complete Leopold's maneuvers to assess fetal position and lie in relation to the maternal pelvis. Spinning babies takes approximately 30 minutes to execute and involves several hands-on techniques. Missing on the patient chart flowsheet is an identified area in which the nurse can document these expert nursing techniques vital to labour progress. Instead, nurses who use spinning babies as part of their practice must document the technique in narrative progress notes that are separate from the standardized patient chart flowsheet. Moreover, the detailed intricate maneuvers and the lengthy allocation of time are represented as merely short phrases "spinning babies performed" or "Leopold's maneuvers completed." Neither statement adequately reflects the specialized knowledge and advanced skill involved in the two competencies.

Moreover, one of the nurses I was observing commented that conducting spinning babies "puts you behind in charting and checking the room, but things that are designed to assist women's labour move along don't take priority over the required documentation" (Nurse Informant). In essence, the institutionalized patient chart

flowsheet, or text, requires nurses to make patients "fit" into what the text dictates them to record while at the same time not documenting (therefore "losing") embodied, experiential knowledge of the patient's condition. The nurse's knowledge of the woman's labouring care needs which she attended and the interventions she performed to assist in achieving positive labour outcomes and optimal patient care, receive no recognition in the official text. The comment, above, from the nurse informant, suggests that she may understand that her knowledge as an experienced labour and delivery nurse does not hold the same level of importance to the institution as do biophysical measures. I uncovered that there is no place to document this expert knowledge and because of this, I infer that the institution does not keep record of the supportive measures that nurses carry out and thus such knowledge and skills are subjugated and invisible. Nevertheless, because she understands the value of using certain techniques to help labour progress naturally, the nurse was able to implement the spinning babies technique while at the same time meet the requirements as sanctioned by the institution. How the nurse approached and arranged her care appears to be very similar to what Smith (1987) identifies as a bifurcation of consciousness, as described above. Nursing knowledge and interventions (i.e., facilitating natural birth and using non-pharmacological interventions in labour and delivery) are not considered as important as what is sanctioned by the institution (i.e., recording biophysical data).

Illuminating Nurses' Invisible Work

Previous IE studies expose how much of nurses' work is comprised of activities that go unnoticed, are taken for granted, considered mundane, yet are normal and

important nursing roles and patient care responsibilities (Folkmann & Rankin, 2010; Melon et al., 2013; Rankin & Campbell, 2006, 2009; Urban, 2014; Waters, 2015; Yassin et al., 2015). I question *who* considers these activities to be important and normal. I contend that the comfort measures and practice behaviours which assist with the progress of labour are not given a space in institutionalized forms and are not recognized as important. Many of these nursing practice behaviours are designed to: assist with *normal* labour progress; optimize fetal position into and out of the pelvis; reduce the length of labour; and ultimately, reduce the risks associated with having to resort to cesarean delivery. Recognizing that the dictate—"if it is not documented, it is not done"—exists within the health care system, how is nurses' work properly accounted for in the patient record? Case in point, spinning babies is largely invisible and as such unverifiable.

Similarly, fetal health surveillance does not involve a straightforward or linear process. The EFM machine is made up of an external ultrasound transducer that records the fetal heart rate and the toco transducer that records trans-abdominal uterine contractions (Rivard & Morin, 2017). The recordings are made available for interpretation on a graphic printout. The nurse, then, interprets and classifies the EFM graphic printout tracings (Dore & Ehman, 2020). The process involves an intricate, detailed analysis of both fetal heart rate and contraction patterns every 15 to 30 minutes. A systematic series of defining characteristics (i.e., baseline, variability, accelerations, and decelerations), including an interpretation of uterine activity, must be completed and entered in the flowsheet before a classification can be made. Despite the SOCG (Dore & Ehman, 2020; Liston et al., 2007; 2018) providing a three-tier system of fetal heartbeat

interpretation and classification, some of the data are not always obvious and can be difficult to characterize. On occasion the time it takes to classify an EFM tracing (continuous or intermittent[7]) is lengthy. I watched nurses spend enormous amounts of time attempting to: figure out the type of deceleration reflected on the graphic printout; compare definitions provided by the SOGC; consult with other nurses and physicians; exchange opinions and reach a conclusion; and then, begin the process all over again.

On one occasion, during participant observation of an experienced labour and delivery nurse, I observed the nurse's difficulty attempting to classify certain irregularities following morphine administration. The nurse had become concerned about "something" she saw on the printout but was unable to interpret according to the structured categories on the flowsheet. She requested another nurse view the tracing and an in-depth discussion followed. Both deliberated whether the changes noted were "true late decels" or "subtle late decels."[8] The nurse then consulted with the obstetrical resident and another detailed discussion ensued. The resident believed the variability to be minimal but had difficulty determining the baseline. The resident stated, "Keep an eye on it and I will drop back in 10 minutes to check the variability." The resident returned a few minutes later, viewed the tracing and stated, "My impression is baseline is 140 beats per minute with occasional variables."

[7] Intermittent electronic fetal monitoring refers to attaching the machine at regular time intervals during childbirth but not continuously.

[8] Late decelerations are considered potentially ominous and require close monitoring. Late decelerations are thought to be due to uteroplacental insufficiency and could be a sign of fetal acidemia (i.e., high levels of acid in fetal bloodstream due to extended periods of low fetal blood oxygen levels) (Dore & Ehman, 2020).

In her attempt to meet the flowsheet requirements the nurse found it difficult to classify exactly what the fetal heartbeat was demonstrating. Further, once the resident assessed the tracing and determined the decelerations had changed from what the nurse had interpreted to be "lates," to "variables," the resident then neglected to classify them as either "complicated" or "uncomplicated," which is a requirement. The nurse subsequently decided to classify the tracing as "atypical" but she also entered comments in the narrative progress notes that the obstetrical resident had been consulted. However, all that was required and recorded on the patient chart flowsheet were the characteristics and classification. Documentation did not reflect the lengthy, exhaustive deliberation involved.

Potential for Practice Change

It was a German scientist in the 19th century who first began listening to the fetal heartbeat at intervals between uterine contractions and linked fetal heart rate changes to decreases in blood circulation to the fetus (Schmidt & McCartney, 2000). The scientist claimed that the fetal heartbeat served as an indicator of fetal oxygenation (Goodlin, 1979). Many clinicians then began attributing poor birth outcomes to the stresses of childbirth and it was during this era that an orthopedic surgeon advised that cerebral palsy was the result of abnormal labour. It is thought his assertion is likely responsible for many of today's inaccurate beliefs regarding fetal compromise during childbirth (Schmidt & McCartney, 2000). Normally, during uterine contractions, the amount of oxygenated blood flow to the fetus is decreased during a contraction. However, if the uterine blood oxygen reserve is maintained the fetus is protected from low oxygen levels. Nevertheless,

the monitoring industry has flourished since invention of the EFM for surveillance. Monitoring of fetal well-being and EFMs are found in most of the hospital labour and birth units in high income countries (Sartwelle et al., 2017).

More recently, low fetal oxygen levels are thought to be accountable for some cases of cerebral palsy and some neonatal deaths (MacLennan & Thompson, 2015; Reinebrant et al., 2018). However, these claims are not without critique. For example, why has the increased use of the CEFM been associated with higher rates of instrumental births and cesarean deliveries, yet there has been no difference in the rates of cerebral palsy or infant mortality (Alfervic et al., 2017; Small et al., 2020)? Nevertheless, CEFM continues to be used routinely in an effort to detect early fetal distress, making it difficult for nurses to intervene with supportive measures and other best practices during care of labouring women. As a novice institutional ethnographer, I began to explore the practice decisions and behaviours of labour and delivery nurses, in particular, how fetal health surveillance happens. I wanted to determine how the fetal health surveillance jigsaw puzzle pieces fit together and address the problematic: the use of CEFM and not IA during low-risk labour despite evidence-based recommendations to the contrary.

IE enabled careful examination and description of nurses' daily activities and decision-making processes involved in fetal health surveillance. Sharing my research observations and new insights with nurses on the unit and beyond, may be a first step in achieving practice change. First, highlighting in discussion groups the subordination of specialized nursing knowledge and what I perceive is nurses' invisible work, may heighten recognition, awareness, and the valuing of nurses' intricate knowledge and expert skillset

(e.g., spinning babies). Second, providing nurses on the labour and delivery unit opportunity for debriefing how and why fetal health surveillance happens as it does, would facilitate their accurate understanding of the time devoted to CEFM tracings. Considering the time-consuming, complex practice of tracing interpretation and classification, nurses should question whether it is feasible to expect *one* nurse to both manage tracings and be responsible for providing supportive labour care. Third, despite the configuration of the patient chart flowsheet, the SOGC does not recommend CEFM for fetal health surveillance when patients are healthy women in low-risk labour. Encouraging nurses to lobby for change to the labour record flowsheets to incorporate IA as the *first* method to assess fetal well-being would reduce this exclusive focus on technical tasks and devote more nursing attention to supportive care measures. Nurses could then apply and make visible specialized techniques shown to benefit the natural process of childbirth.

Summary

As evidenced above, I have begun to assemble how separate, everyday occurrences in the complex work environment of the labour and delivery unit are coordinated to occur by carefully examining fetal health surveillance. By paying close attention to the standpoint of nurses' experiences, IE enabled me to identify an organizational text (i.e., the patient chart flowsheet) that significantly influences routine nursing practice behaviours. Disturbingly, this flowsheet that nurses are mandated to complete, lacks space for nurses to document their specialized clinical practice knowledge and skills (e.g., spinning babies maneuvers) related to the care of labouring

women, leading me to infer that there is a subordination of nursing knowledge. IE also enabled me to unveil the invisible work of nurses in labour and delivery (i.e., the time devoted to interpretation and classification of CEFM tracings) that is often taken-for-granted, ignored, and overlooked, but yet, a requisite nursing responsibility. Based on these insights, I put forward suggestions that could potentially change practice on the unit and contribute to greater recognition and appreciation of the nurses' expert knowledge and skills and bring out from the shadows the fundamental and essential role of nurses in labour and delivery.

References

Alfirevic, Z., Gyte, G. M. L., Cuthbert, A., & Devane, D. (2017). Continuous cardiotocography (CTG) as a form of electronic fetal monitoring (EFM) for fetal assessment during labour. *Cochrane Database of Systematic Reviews, (2),* Article CD006066. https://doi.org/10.1002/14651858.CD006066.pub3

Bisaillon, L. (2012). An analytic glossary to social inquiry using institutional and political activist ethnography. *International Journal of Qualitative Methods*, *11*(5), 607–627. https://doi.org/10.1177/160940691201100506

Campbell, M. & Gregor, F. (2008). *Mapping social relations: A primer in doing institutional ethnography.* Higher Education University of Toronto Press.

Campbell, M. L., & Jackson, N. S. (1992). Learning to nurse: Plans, accounts, and action. *Qualitative Health Research, 2*(4), 475–496. https://doi.org/10.1177/104973239200200407

Devane, D., Lalor, J. G., Daly, S., Mcguire, W., Cuthbert, A., & Smith, V. (2017). Cardiotocography versus intermittent auscultation of fetal heart on admission to labour ward for assessment of fetal wellbeing. *Cochrane Database of Systematic Reviews, (1),* Article CD005122. https://doi.org/10.1002/14651858.CD005122.pub5

Devault, M. L. (2006). Introduction: What is institutional ethnography? *Social Problems, 53*(3), 294–298. https://doi.org/10.1525/sp.2006.53.3.294

Dore, S., & Ehman, W. (2020). No. 396. Fetal health surveillance: Intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada: JOGC 42*(3), 316–348.e9. https://doi.org/10.1016/j.jogc.2019.05.007

Downe, S., Finlayson, K., Oladapo, O., Bonet, M., & Gülmezoglu, A. M. (2018). What matters to women during childbirth: a systematic qualitative review. *PloS One*, 13(4), e0194906. https://doi.org/10.1371/journal.pone.0194906

Draper, J. (2014). Embodied practice: Rediscovering the 'heart' of nursing. *Journal of Advanced Nursing 70*(10), 2235-2244. https://doi: 10.1111/jan.12406

Folkmann, L., & Rankin, J. (2010). Nurses' medication work: what do nurses know? *Journal of Clinical Nursing, 19*(21–22), 3218–3226. https://doi.org/10.1111/j.1365-2702.2010.03249.x

Goodlin, R. C. (1979). History of fetal monitoring. *American Journal of Obstetrics and Gynecology*, *133*(3), 323–352. https://doi.org/10.1016/0002-9378(79)90688-4

Häggsgård, C., Nilsson, C., Teleman, P., Rubertsson, C., & Edqvist, M. (2021). Women's experiences of the second stage of labour. *Women and Birth.* https://doi.org/10.1016/j.wombi.2021.11.005

Harding, S. (Ed.). (2004). *The feminist standpoint theory reader. Intellectual and political controversies*. Routledge.

Keag, O. E., Norman, J. E., & Stock, S. J. (2018). Long-term risks and benefits associated with cesarean delivery for mother, baby, and subsequent pregnancies: Systematic review and meta-analysis. *PLoS Medicine, 15*(1), e1002494. https://doi.org/10.1371/journal.pmed.1002494

Liston, R., Sawchuck, D., & Young, R. (2007). SOGC clinical practice guideline No. 197. Fetal health surveillance: Antepartum and intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada*, *29*(9), S3–S56.

Liston, R., Sawchuck, D., & Young, R. (2018). Reaffirmed SOGC clinical practice guideline No. 197b. Fetal health surveillance: Intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada 40*(4), e298–e322. https://doi.org/10.1016/j.jogc.2018.02.011

MacLennan, A. H., Thompson, S. C., & Gecz, J. (2015). Cerebral palsy: Causes, pathways, and the role of genetic variants. *American Journal of Obstetrics and Gynecology*, *213*(6), 779–788. https://doi.org/10.1016/j.ajog.2015.05.034

Marx, K., & Engels, F. (2008). *The communist manifesto* (D. McLellan, Ed.). Oxford University Press. (First published as a World's Classic paperback 1992).

McCoy, L. (2008). Institutional ethnography and constructionism. In J. A. Holstein and J. F. Gubrium (Eds.). *Handbook of constructionist research* (pp. 701–714). Guilford Press.

Melon, K. A., White, D., & Rankin, J. (2013). Beat the clock! Wait times and the production of 'quality' in emergency departments. *Nursing Philosophy*, *14*(3), 223–237. https://doi.org/10.1111/nup.12022

Miltner R. S. (2002). More than support: nursing interventions provided to women in labor. *Journal of Obstetric, Gynecologic, and Neonatal Nursing: JOGNN*, *31*(6), 753–761. https://doi.org/10.1177/0884217502239214

Mykhalovskiy, E. (2002). Understanding the social character of treatment decision making. In M. Bresalier, L. Gillis, C. McClure, L. McCoy, E. Mykhalovskiy, D. Taylor, & M. Webber (Working Group). *Making care visible: Antiretroviral therapy and the health work of people living with HIV/AIDS* (pp. 37-63). https://chodarr.org/sites/default/files/chodarr1501.pdf

Ng, S. L., Bisaillon, L., & Webster, F. (2017). Blurring the boundaries: Using institutional ethnography to inquire into health professions education and practice. *Medical Education, 51*(1), 51–60. https://doi.org/10.1111/medu.13050

Peters, L., Thorton, C., de Jonge, A., Khashan, A., Tracy, M., Downe, S., Feijen-de Jong, E., & Dahlen, H. (2018). The effect of medical and operative birth interventions on child health outcomes in the first 28 days and up to 5 years of age: A linked data population-based cohort study. *Birth, 45,* 347-357. https://doi.10.1111/birt.12348

Rankin, J. (2017). Conducting analysis in institutional ethnography: Guidance and cautions. *International Journal of Qualitative Method*, *16*(1), 1–11. https://doi.org/10.1177/1609406917734472

Rankin, J. M. (2014). The rhetoric of patient and family centred care: An institutional ethnography into what actually happens. *Journal of Advanced Nursing*, *71*(3), 526–534. https://doi.org/10.1111/jan.12575

Rankin, J. & Campbell, M. (2006). *Managing to nurse: Inside Canada's health care reform.* University of Toronto Press.

Rankin, J. M., & Campbell, M. (2009). Institutional ethnography (IE), nursing work and hospital reform: IE's cautionary analysis. *Forum: Qualitative Social Research, 10*(2), Article 8. https://doi.org/10.17169/fqs-10.2.1258

Rankin, J. M., Malinsky, L., Tate, B., & Elena, L. (2010). Contesting our taken-for-granted understanding of student evaluation: Insights from a team of institutional ethnographers. *The Journal of Nursing Education*, *49*(6), 333–339. https://doi.org/10.3928/01484834-20100331-01

Reinebrant, H.E., Leisher, S.H., Coory, M., Henry, S., Wojcieszek, A.M., Gardener, G., Lourie, R., Ellwood, D., Teoh, Z., Allanson, E., Blencowe, H., Draper, E.S., Erwich, J.J., Frøen, J.F., Gardosi, J., Gold, K., Gordijn, S., Gordon, A., Heazell, A.E.P.,...Flenady, V. (2018). Making stillbirths visible: A systematic review of globally reported causes of stillbirth. *BJOG: An International Journal of Obstetrics and Gynaecology*, *125*(2), 212–224. https://doi.org/10.1111/1471-0528.14971

Rivard, L. & Morin, F. (2017). Fetal health surveillance during labour. In S. Perry, M. Hockenberry, D. Lowdermilk, D. Wilson, L. Keenan-Lindsay, & C. Sams (Eds.). *Maternal child nursing care in Canada* (2nd ed., pp. 491–511). Elsevier Canada.

Royal College of Physicians and Surgeons (2019). Obstetrics and gynecology competencies. Version 1.0. https://www.royalcollege.ca/rcsite/home-e

Sartwelle, T. P., Johnston, J. C., & Arda, B. (2017). A half century of electronic fetal monitoring and bioethics: Silence speaks louder than words. *Maternal Health, Neonatology and Perinatology*, *3*, Article 21. https://doi.org/10.1186/s40748-017-0060-2

Schmidt, J. V., & McCartney, P. R. (2000). History and development of fetal heart assessment: A composite. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *29*(3), 295–305. https://doi.org/10.1111/j.1552-6909.2000.tb02051.x

Small, K. A., Sidebotham, M., Fenwick, J., & Gamble, J. (2020). Intrapartum cardiotocograph monitoring and perinatal outcomes for women at risk: Literature review. *Women and Birth*, *33*, 411–418. https://doi.org/10.1016/j.wombi.2019.10.002

Smith, D. E. (1974). Women's perspective as a radical critique of sociology. *Sociological Inquiry*,*44*(1), 7–13. https://doi.org/10.1111/j.1475-682X.1974.tb00718.x

Smith, D. E. (1986). Institutional ethnography: A feminist method. *Resources for Feminist Research, 15*(1), 6–13.

Smith, D. E. (1987). *The everyday world as problematic. A feminist sociology*. Northeastern University Press.

Smith, D.E. (1990a). *The conceptual practices of power: A feminist sociology of knowledge*. Northeastern University Press.

Smith, D. E. (1990b). *Texts, facts, and femininity: Exploring the relations of ruling*. Routledge.

Smith, D. E. (2005). *Institutional ethnography: A sociology for people*. AltaMira Press.

Smith, D. E. (2006). Incorporating texts into ethnographic practice. In D. E. Smith (Ed.). *Institutional ethnography as practice* (pp. 65–88). Rowman and Little Field Publishers, Inc.

Smith, D. E., & Turner, S. M. (2014). Introduction. In D. E. Smith & S. M. Turner (Eds.), *Incorporating texts into institutional ethnographies* (pp. 3–13). University of Toronto Press.

Teghtsoonian, K. (2015). Methods, discourse, activism: Comparing institutional ethnography and governmentality. *Critical Policy Studies, 10*(3), 330–347. https://doi.org/10.1080/19460171.2015.1050426

Urban, A. M. (2014). Taken for granted: Normalizing nurses' work in hospitals. *Nursing Inquiry*, *21*(1), 69-78. https://doi.org/10.1111/nin.12033

Walby, K. T. (2007). On the Social Relations of Research: A critical assessment of institutional ethnography. *Qualitative Inquiry, 13*(7), 1008–1030. https://doi.org/10.1177/1077800407305809

Waters, N. (2015). Towards an institutional counter-cartography of nurses' wound work. *The Journal of Sociology & Social Welfare, 42*(2). https://scholarworks.wmich.edu/jssw/vol42/iss2/8

Yassin, K., Rankin, J. & Al-Tawafsheh, A. (2015). The social organization of nurses' pain management work in Qatar. *Pain Management Nursing, 16* (5), 759-769. https://doi.org/10.1016/j.pmn.2015.06.005

Chapter Three

Explicating the Everyday Realities of Nurses' Work in Labour and Delivery

This chapter is the second article of the dissertation that will be prepared for publication. The chapter is a research article within which I present some of the findings from this institutional ethnographic (IE) exploration of nurses' work in labour and delivery, which was conducted by investigating how nurses conduct fetal health surveillance—a significant everyday work responsibility that served as a case exemplar of nurses' work.

Stemming from personal and professional realization that nurses are increasingly focused on technological interventions in the care of labouring women, in particular, using continuous electronic fetal monitoring (CEFM), I set out to uncover the external forces or *ruling relations* that influence how nurses "do" fetal health surveillance and coordinate the work of nurses in labour and delivery. As often occurs in IE research, this exploration started at the ground or *local* level studying the everyday activities of nurses at work in the labour and delivery unit. The research question addressed in this chapter was: *What are the everyday experiences of labour and delivery nurses related to fetal health surveillance?* Following a brief overview of IE, I describe the everyday experiences by way of an ethnographic account of a labour and delivery nurse (Barb) assigned to the care of a patient (Susan[9]) who is experiencing childbirth for the first time. The account includes both a description of Barb's actions taken as she carries out fetal

[9] Identifying details have been changed and pseudonyms used to protect confidentiality.

health surveillance as Susan's labour progresses and my critical interpretation of how ruling relations are activated through texts that directly influence Barb's practice decisions and behaviours.

Overview of Institutional Ethnography

IE methodology is the conception of Canadian sociologist Dorothy Smith (1987; 2005). IE is a theoretically informed method of inquiry that draws from Marx's theory (Marx & Engels, 2008), ethnomethodology, symbolic interactionism, and feminist standpoint theory. Smith (2005) first proposed IE as an *alternate sociology* that aims to explain how people's lives are structured by social interactions or social relations that "that pass through and shape" the work of people in local settings. Smith coined these more powerful social relations "ruling relations" (p. 10). She described ruling relations as an extraordinary, yet ordinary, set of complex relations that are textually-mediated and connect people across space and time. IE researchers uncover and explain how ruling relations regulate, organize, and coordinate people's behaviours; and often, concerted actions are beyond conscious awareness (Rankin, 2014). IE researchers delve deeply into peoples' knowledge and everyday work looking and listening for traces of these ruling relations to explain what is happening to people and why it happens as it does (Smith, 2005).

Ruling relations are not explicit; rather they are subtly produced through texts, especially when texts are linked to the social organization of power (Campbell & Gregor, 2008). Texts can be written, oral, or visual, and examples include film, newspapers, policies, reports, computer programs, social media, patient chart forms and other

institutional documents, to name a few. Researchers pay close attention to the discourse of dominant ideology that is often embedded in texts, such as in institutional documents, which play a major role in shaping institutional culture, values, and agendas (DeVault & McCoy, 2006). As well, texts are easily replicable and can be mass produced for wide distribution, for example, throughout a health care institution. This mass production allows for standardization and allows centralized ruling relations to coordinate multiple settings because the same texts are activated by various users in diverse local settings (DeVault & McCoy, 2006).

Data Collection Methods

I addressed the research question by exploring the standpoint knowledge and experiences of registered nurses[10] working in a labour and delivery unit in a tertiary care center in eastern Canada. Ethics approval for the study was obtained from both the provincial ethics board and the health authority's research proposal approval committee (Appendix A). Written consent was obtained from all informants including verbal consent from women in labour during participant observations.

Data in IE studies are generally collected in three ways: participant observations, semi-structured interviews with informants, and retrieval and review of forms and other relevant documents. In this chapter, the findings are largely based on an ethnographic account I constructed based on data obtained through participant observation of a nurse who agreed to be shadowed during her 12-hour day shift on the unit and my detailed field notes. I then reviewed documents (e.g., unit policies, procedures, and patient chart forms

[10] The registered nurse is the focus of this dissertation.

and flowsheets) that were referred to and used by the nurse during participant observation. Relevant documents that other nurse informants told me informed their fetal health surveillance work were also retrieved and reviewed. Face-to-face, semi-structured interviews (Appendix B) included the nurse I shadowed and other nurse informants (n=5) who were recruited to participate in the study. The other nurse informants enabled me to clearly understand the particular standpoint (i.e., views) of nurses' everyday experiences of how things (i.e., fetal health surveillance) 'happen' on the labour and delivery unit. All interviews were recorded, transcribed, and de-identified. All hard copy data, including interviews and field notes, were stored in a locked cupboard. Digital data files were encrypted and stored in a password protected network drive. Consent forms were kept separate from the data to maintain anonymity and protect confidentiality.

Data Analysis

Data collection and data analysis occur simultaneously during an IE study (Campbell & Gregor, 2008). Data analysis is an iterative process and entails reading and rereading data collected from interviews, field notes, and key documents. I immersed myself in the data and began with examination of my field notes obtained from participant observation of Barb caring for Susan. I read and re-read informants' comments within interview transcripts; analyzed relevant documents routinely used by nurses; and observed Barb's activities and interactions (e.g., with other nurses, physicians, and patients) while I shadowed her at work on the unit. There were times when I needed to revisit and speak further with informants to clarify and, or, follow-up on certain points that were made in original interviews or during participant observations.

Once I started to see patterns and connections begin to emerge in the analysis, I was able to start to link pieces of the data together by using analysis techniques unique to IE, including mapping, indexing, and writing accounts. These techniques assist IE researchers to "weave the analysis together to show how ruling relations work as generalizing practices and unfold in similar ways for variously located people across different sites and times and in different situations" (Rankin, 2017, p. 8).

Mapping

Smith (2005) refers to mapping as a metaphor in which researchers can *map out* or schematically represent connections between local settings and larger social forces, or ruling relations, in a visual way. The researcher maps out "how things work and are put together beyond the scope of our everyday knowledge" (p. 206) from a standpoint situated in the web of practices and ruling relations (Rankin, 2017). I visually mapped out the nurse informants' everyday fetal health surveillance decisions and actions taken. Through the analysis process, the researcher draws a map that schematically depicts the interweaving connections between the local, extra-local, and trans-local happenings as well as the connections that serve "as a guide through a complex ruling apparatus" (DeVault & McCoy, 2002, p. 754). I developed many maps as I moved through my analysis. As the maps evolved, I had a clearer representation of what was *actually* happening related to fetal health surveillance. I was able to trace the complex trans-local work processes (see Appendix C) associated with fetal health surveillance and identify traces of textually-mediated ruling relations responsible for the coordination of nurses' work in labour and delivery.

Indexing

Indexing is a technique for assembling large amounts of data in IE studies. Smith (2005) refers to indexing as similar to the index of a book. It is a helpful tool because institutional ethnographers can remain immersed in the materiality of the data and avoid making the leap to coding, categorizing, or thematic analysis which results in particularities of the data being left behind or missed (Rankin, 2017). I used indexing as a way to manage data from the informant interviews by colour coding patterns and connections as they emerged during the analysis process. I paid close attention to similar topics that emerged in the interviews and began to see links between what informants spoke about, what I witnessed nurses perform (work processes) during participant observations, and the documents to which they referred to and used. It enabled me to start to uncover patterns and connections between informants at the local unit and higher-level informants within the social hierarchy, and, between documents involved in their doings (work processes). For example, I began indexing informants' interviews by colour coding all the practices and procedures (work processes) and documents involved with interpreting and classifying fetal heart rate graphic tracings. I reviewed the documents that appeared to be linked to interpretation and classification of the tracings to learn when and by whom these documents were activated.[11]

[11] Texts remain inert until people "activate" them when they handle, read, use, replicate, and complete them as they go about doing their everyday work in particular settings (Smith, 1999).

Writing Accounts

Writing accounts or "analytic chunks" (Rankin, 2017, p. 6) involved putting in writing data obtained from participant observation, informant interviews, and document analysis, in a way that helped me to understand how each datum source was connected. I described my observations of how fetal health surveillance was performed, paying special attention to how the nurse regularly recorded details of the fetal heart rate and uterine contractions, biophysical measures, and medical interventions on the patient chart flowsheet. The flowsheet, I discovered, was linked to higher level texts (e.g., policy documents) of which nurse informants spoke in their interviews. From writing about my observations of what, when, and how nurses recorded their fetal health surveillance assessment findings, I was able to make explicit how the patient chart flowsheet drives routine practice behaviours at the local unit level. I asked several questions of the data during analysis, such as: What do the unit texts (patient chart flowsheets, unit policies and procedures) make visible? What do they hide? What is missing? How is fetal health surveillance informed by texts that are routinely used on the unit?

An Ethnographic Account of Fetal Health Surveillance

The following is the ethnographic account of my participant observation in a labour and delivery unit observing Barb, an experienced labour and delivery nurse whose practice behaviours are typical of nurses on the unit. It is important to point out that there was never any intention to judge or to criticize Barb's nursing care. Rather, the purpose of this ethnographic account was to demonstrate how the labouring care provided by Barb and other nurses is unknowingly influenced by ruling relations. Barb was assigned

to care for Susan, a healthy woman having her first baby. Susan was admitted during the night shift with spontaneous rupture of membranes and uterine cramping.

I met Barb at the nurses' station at the beginning of her shift. She was speaking with another nurse when I arrived. I greeted Barb and she smiled back at me. The unit was noisy with several nurses and physicians gathered, some were preparing to leave after the night shift and others were beginning the day shift. Barb immediately provided a brief outline of Susan's obstetrical history as she flipped through Susan's chart. She quickly explained that Susan was in a birthing room and was attached to CEFM. She explained, "The night nurse thought she heard a deceleration" and therefore applied the CEFM for an assessment tracing. Barb stated she was waiting for the obstetrical resident to reassess Susan "for pit"[12] and in the meantime, Susan remained on the CEFM. While Barb waited for the resident to appear she returned to her conversation with her nursing colleague. A short time later, the on-call resident arrived at the nursing station and Barb quickly walked over to her and reported what had occurred with Susan during the early morning hours. I was stunned at the noise level and the number of nurses, physicians, and medical students, who gathered at or near the nursing station.

While the busyness of the nursing station continued, Barb and the resident discussed both the details of the questionable fetal heart rate deceleration heard by the night nurse as well as the plan for Susan's care. While they were in conversation, I noticed a large bulletin board with the label "Graph Discussion Board," directly opposite

[12] "Pit" refers to Pitocin. This synthetic intravenous oxytocin is used to stimulate regular labour contractions.

the nursing station. Displayed were numerous examples of fetal heart rate tracings which were enlarged to direct readers' attention to particular points on the graphic printout indicating various descriptions and classifications. I mentally questioned when fetal health surveillance became so technologically focused and demanding of such massive displays of tracings to be hung on the walls of the unit as illustrations of certain patterns? I also noted an obvious lack of posters or display material outlining physical comfort measures that support and provide active nursing care to women during labour. As their conversation continued, Barb and the obstetrical resident discussed how to "get her into labour" and both believed the use of intravenous oxytocin to be the best route as Susan was "contracting too much for misoprostol"[13] but was not in established labour. All the while this plan of care was being decided, Susan remained in the birthing room out of sight from where we (Barb, resident, and myself) were located.

A short time later, Barb and the obstetrical resident finished their discussion and Barb headed for the birthing room. She greeted Susan and her partner, repeatedly glanced at the CEFM graphic printout strip and declared it a "beautiful graph, a normal graph." I quickly interjected and introduced myself as "the researcher" who Barb had described would be joining her during the shift. Within minutes the obstetrical resident entered the birthing room and her eyes immediately focused on the CEFM as she began to explain to Susan the need for intravenous oxytocin to strengthen contractions. Susan and her partner listened attentively to the resident as Barb gathered supplies and prepared the oxytocin

[13] Misoprostil is a cervical ripening agent that acts to soften, dilate, and thin (efface) the cervix. It also stimulates uterine contractions.

infusion. Susan accepted the plan for oxytocin without question as the resident wrote in Susan's patient chart and exited the birthing room once the documentation was complete.

Barb assured Susan and her partner that she would be "watching the baby the entire time" by way of the CEFM tracing. Barb also asked about Susan's plan for pain medication. Susan said she did not have a specific pain plan and preferred to "see how it goes." I was puzzled why Susan was not presented with information about CEFM, especially given CEFM can disrupt the natural course of birth (Lothian, 2014). I was also curious whether Susan had attended prenatal classes and, if so, did she recall ways to cope in labour? As a prenatal instructor, I *know* the curriculum and what is presented regarding non-pharmacological coping techniques such as movement, hydrotherapy, massage, hot and cold packs, positions changes, to name a few. Yet, none of these methods were mentioned or discussed. Instead, as Barb prepared the oxytocin infusion she communicated a list of pain medication and pain relief options that were available and used frequently on the unit. Then Barb reassured Susan that they could "chat about it as your labour moves along." I was struck by the fact that Barb's first response was to describe pharmacological interventions without mentioning or considering the use of non-pharmacological, supportive measures.

Shortly after the oxytocin started infusing, Barb suggested to Susan's partner that it was a "good time to go for an hour" as the "baby won't be coming too fast." Her partner agreed and stated he would return soon. At this point Barb switched the

transducers to telemetry[14] and disconnected the EFM machine from the wall and pushed it out to the busy nursing station, leaving Susan ambulating in the birthing room alone and unattended. Barb described how she "needs to watch the baby constantly" and how, at this point, "you're feeling almost like you're a hindrance in the room, she isn't uncomfortable, and she doesn't need me in the room." Barb organized a place to sit in the nursing station with the EFM machine next to her so that she could focus on documenting her fetal heart rate interpretation, classification, and the uterine contraction pattern every 15 minutes.

Barb remained at the nursing station for several hours and returned to Susan's birthing room only when it was necessary to increase the oxytocin infusion rate, to monitor Susan's vital signs, to readjust the CEFM, or to accompany the resident or obstetrician when they assessed Susan's progress. While at the nursing station, Barb spent the majority of her time focused on interpreting and classifying the CEFM graphic printout and documenting her assessments in the partogram flowsheet.[15] At times, the EFM machine alarmed when the fetal heart failed to make contact with the ultrasound transducer or showed a slower heart rate than what was produced previously. Barb pressed the "silence" key, waited, and determined whether she needed to readjust the transducer. Barb explained how the loss of contact and lower heart rate is likely due to

[14] Telemetry allows monitoring and transmission of the fetal heartbeat and contraction patterns to the EFM machine but does not require the woman to be attached to the EFM.
[15] The partogram flowsheet is part of the patient chart in which labour and delivery nurses record women's labour progress and fetal well-being assessments. A more in-depth description is provided under Critical Analysis.

Susan walking around and how the monitor often picks up the maternal pulse due to the position of the mother.

During her time at the nursing station Barb also took her breaks as instructed, updated Susan's progress on the inpatient white board,[16] and reported on Susan's labour progress with the patient care coordinator and the obstetrical resident. For example, at one point Barb suggested to the resident that Susan may benefit from an internal exam to assess for the presence of forewaters.[17] Following further discussion, the resident agreed with Barb's suggestion and conducted the internal exam and artificially ruptured Susan's remaining amniotic fluid sac.

Barb continued sitting at the nursing station with the EFM machine and returned to Susan's room when she determined Susan was "getting uncomfortable" with her contractions. Barb determined Susan's comfort level by returning to the birthing room to "check on her" a few times while watching the CEFM tracing. One of these 'check ins' caused Barb to push the EFM machine back into the birthing room. Barb explained, "the patient wants something and is getting uncomfortable."

When Barb returned to the birthing room Susan was sitting in a rocking chair using deep breathing exercises as she experienced a contraction. Her partner was sitting near her. Barb returned the EFM machine to its original spot, near the birthing bed, and then situated herself in a chair next to the EFM machine. From the chair, Barb described to Susan in detail how to "relax" during contractions. I noticed how Barb did not actively

[16] This white board is located in the nursing station and contains the initials and labour progress of all in-patients.
[17] Forewaters are the portion of the amniotic fluid sac presenting in front of the fetal head.

(i.e., verbally or physically) support Susan when her contractions began. I did not witness Barb focus on Susan's discomforts of labour, attempt to talk Susan through her contractions, or provide reassurance and encouragement. I was surprised by Barb's lack of physical touch and very little, if any, positive coaching or feedback. At one point Barb got up from her chair and faced Susan directly. Barb appeared distracted. She was staring at the CEFM tracing while she began attempting to palpate a contraction over Susan's gown. Barb then returned to her chair and documented her palpation assessment on the partogram flowsheet.

A little time later Susan appeared more uncomfortable with her contractions and stated, "this is a bad one." Barb remained seated with her back to Susan and continued with her assessment of the CEFM graphic printout and outwardly did not appear to pay attention to Susan's remark. There was no verbal acknowledgment from Barb in response to Susan's description of the contraction, nor did she turn to look at Susan and assess how Susan was coping and breathing through the difficult contraction. There was no indication that Barb actually heard Susan say how intense she found the contraction. Barb's focus remained on the CEFM graphic printout, watching and then recording her tracing interpretations on the partogram flowsheet and commenting in the progress notes.

Susan, again, became more uncomfortable and Barb decided to perform a vaginal exam to assess the labour progress. While Barb instructed Susan to lie on her back, the contractions kept occurring and Susan appeared uncomfortable as Barb performed the internal exam, especially when Barb struggled to palpate Susan's cervix. The EFM machine then lost contact with the fetal heart and Barb quickly readjusted the ultrasound

transducer to regain contact. Barb quickly stated, “Let’s do the morphine.” Susan agreed and Barb immediately left the birthing room to prepare the morphine injection. At this point, Susan’s partner assisted Susan to stand and accompanied her to the bathroom.

Critical Analysis

I found Barb’s lack of interaction with Susan, troubling. Barb was principally focused on the CEFM and recording her assessments of the fetal heart rate in conjunction with Susan’s contraction patterns. Her dedicated attention to this technical task provided hints about what guided Barb’s practice interventions when caring for Susan. My critical analysis suggests that much of what guided Barb’s practice interventions and fetal health surveillance decisions was the partogram flowsheet. From the moment women are admitted to the unit and deemed in labour, nurses record their observations, assessments, and interventions on the partogram flowsheet.

The Partogram Flowsheet

The flowsheet, which originated from the “partogram,” is designed to primarily collect biophysical data to provide an explicit, continuous, graphic representation of women’s labour and birth. In 1954, Emanuel Friedman (an obstetrician) was the first to graphically record the progress of labour through plotting biophysical data (e.g., dilation of the cervix and uterine contraction intensity) in chronological order. The graphic timeline was used as a baseline to determine normal labour progress and to highlight abnormal (slower) progress (Groeschel & Glover, 2001; Lavender et al., 2013). The partogram has evolved to become a practical tool that is employed to record biophysical data and biomedical interventions related to both fetal heart rate assessments and labour

progress. Today, the partogram flowsheet is a standardized, replicable tool that is used by most tertiary care centers. The partogram flowsheet (see Appendix D) sanctioned by this regional health authority reflects the national Society of Obstetricians and Gynaecologists of Canada's (SOGC) *Fetal Health Surveillance* clinical practice guidelines and institutionally endorsed unit policies and procedures. These guidelines are considered the evidence-based standards and methods of accountability for the provision of intrapartum quality care. They also reflect current clinical and scientific data obtained through Cochrane reviews, meta-analyses, and randomized controlled trials (Blake & Green, 2019).

The unit's partogram flowsheet is in the format of a pamphlet. When nurses open it, on the left page they record by hand the date and time, maternal vital signs, fetal heart rate interpretation and classification, uterine activity and cervical dilation, effacement, the name of the person who conducted the cervical assessment, and the time it was completed. On the right, nurses record, also by hand, biomedical interventions such as intravenous medications including rate and concentration, other medications, epidural rate, assigned nurses' initials, and comfort measures represented by numerical hospital codes.

Columns on the flowsheet are presented in order of importance, starting with maternal vital signs, and then, high priority is given to fetal health surveillance, uterine activity, and medical interventions. In fact, a total of five columns are dedicated to fetal health surveillance and include: 1) *mode* (IA or EFM); 2) *baseline*, recorded as a number in beats per minute; 3) *rhythm or variability* where rhythm is recorded as regular or

irregular when IA is used, and, variability (i.e., absent, minimal, moderate, marked) that is recorded when CEFM is used; 4) *Periodic and episodic* changes, that are determined when CEFM is used and are documented as early deceleration, uncomplicated variable, complicated variable, late deceleration, prolonged deceleration, or acceleration; and 5) *classification* which refers to the CEFM graphic printout and is recorded as either normal, atypical, or abnormal.

Moreover, also required in this partogram labour record are details of uterine activity assessment. Four columns are devoted to this: *interval* which refers to the number of contractions in a 10-minute period averaged over a 30-minute period and recorded as a number out of 10; the next column is labelled *duration* and is recorded in length of time, followed by *intensity* documented as mild, medium, or strong; and the final column is labelled *resting tone* with choice of soft or firm, and, "yes," to indicate 30 seconds or more rest between each contraction and "no" if not.

Unit policies that I reviewed, specifically reference these national fetal health surveillance guidelines. For example, in terms of fetal health surveillance, intermittent auscultation (IA) of the fetal heart rate is designated for all low-risk labouring women and CEFM is the recommended choice for high-risk labouring women. Details are clearly outlined for both IA and EFM in terms of the equipment, frequency of fetal heart rate assessment and recording during each stage of labour, and how to interpret assessment findings. In particular, the EFM policy provides step-by-step instructions for use of CEFM. Nurses are expected to assess the baseline, variability, periodic and episodic changes, uterine activity, and classify the tracing as either normal, atypical, or abnormal

every 15 to 30 minutes during the first stage of labour (Regional Health Authority Electronic Fetal Monitoring Policy).

The IA policy provides similar step-by-step instructions; however, this method of assessment requires a different skillset and approach to interpreting the fetal heart rate. Although IA is the recommended method during low-risk labour, IA is an intricate skill and requires nurses to obtain a baseline by listening and counting the fetal heart rate for 1 minute without a contraction and while the baby is inactive (Dore & Ehman, 2020). Nurses must then determine whether the fetal heart is beating within normal baseline range and if the rhythm is regular or irregular. While the IA technique requires practice and repetition before the nurse is an expert in the execution of the skill, nurses I interviewed reported receiving very little training and practice in the art of IA. During the 9-hour unit orientation session, 4 hours were devoted to fetal health surveillance and focused on interpreting and classifying CEFM tracings with little reference to IA. Similarly, the MORE^{OB}[18] workshop on fetal health surveillance provided little practice related to IA. Workshop content was devoted to interpreting and classifying fetal monitoring strips (see Appendix E). Perhaps some nurses are deferring to CEFM because of the lack of IA training (that can result in nurses becoming unsure, lacking confidence, and, or losing their ability) to perform the skill. In Susan's case, she was considered healthy with no risk factors which means her fetus, according to the policy, *should* have been assessed through IA. However, according to my field notes, Barb reported that the

[18] MORE^{OB} refers to Managing Obstetrical Risks Efficiently. It is a performance improvement program marketed to create a culture of patient safety within obstetrical units. This tertiary unit "bought" the MORE^{OB} program. All nurses are expected to participate. Further description and detail are provided in Chapter 4.

night nurse bypassed what is written in the IA policy which states the registered nurse must reassess the fetal heartbeat again following the next contraction. Instead, the night nurse immediately chose to use CEFM and activate the EFM policy by attaching Susan to the EFM machine. The night nurse documented her concern in the progress notes related to possibly hearing a deceleration, and the subsequent actions taken. Barb explained, "I've heard this a lot. 'I want to know what that baby is doing in there. If I don't put them on the monitor and just do intermittent auscultation, I don't know.' They want clear-cut evidence on paper of what that baby's doing. They want more information."

The partogram flowsheet, as informed by unit policy, dictates the frequency of fetal heart rate assessment and given the biophysical data requirements, demands considerable nursing attention and time. Based on my observations of Barb and my interviews with other nurse informants, I began to uncover how the partogram flowsheet plays a substantial role in the structure and scheduling of nurses' activities at the bedside and as such, may be significant in the organization of nurses' work on the unit.

Supportive Measures

There is only one area on the partogram flowsheet pertaining to comfort and supportive measures that are so essential to positive labour progress and birth outcomes (Bohren et al., 2017; Hodnett et al., 2013). The nurse has a choice of 11 coded measures that, incidentally, are ranked lower in significance than fetal heart rate, biophysical measures, and biomedical interventions. Five columns are specific to biomedical interventions, except for the final column which is labelled as *supportive measures* with a predetermined coding system developed by the institution. The 11 coded measures

include positioning, linen change, back rubs, assistance to the washroom, and, or, checking an intravenous site. Missing from these coded measures are several best practice measures such as spinning babies, encouraging the use of a birthing ball or rocking chair, foot massage, and assistance with knee-chest position. Nowhere on the flowsheet are these and other best practices reflected or recorded. As such, holistic care that provides labouring women with constant support, encouragement, reassurance, and reinforcement, and, a calm relaxed atmosphere within the birthing room, are not documented but made invisible.

The Institutional Textual Account

The partogram flowsheet is what IE researchers would identify as an *organizational text* because it actually informs how intrapartum nursing care happens on the unit and is the manifestation of the application of SOGC clinical practice guidelines and unit policies. Once activated (e.g., as nurses enter flowsheet data), organizational texts are structured in a manner to collect information that the organization deems vital and central to describing what occurs during inpatient health care stays: in this case, the labour and delivery experience.

However, the data collected for the partogram flowsheet reflected Barb's nursing care as determined by the *partogram* and did not actually represent all of what happened for the entirety of her patient's labouring experiences. What was being constructed through Barb's completion of the partogram was an authorized description of what could be said, for example, about Susan's labour as it related to her baby's heart rate, uterine activity, and the impacts those contractions may have had on the fetus. I argue Susan's

actual labour experience and how she dealt with each contraction was not reported, became lost, or was considered insignificant. Susan, the person in labour for the first time, was not at the center of this experience; rather, she became represented through the *institutional textual account* vis a vis the labour record—the partogram flowsheet.

I deduce that the approaches and interventions to managing labour that I witnessed during participant observation of Barb and Susan, are derived from the obstetrical *biomedical model* and have become the taken-for-granted competency of nurses, like Barb, who do their work as is expected. Any opposing views to the use of biomedical interventions are glossed over or explained, colloquially, as "better for you and, or, your baby"; "get the show on the road"; or, "ARM,[19] pit, get it over with," as reported by several nurse informants. The obstetrical biomedical model is powerfully influencing the organizational text identified above, namely, the partogram flowsheet, in addition to the unit's policies and procedures.

Childbirth According to the Biomedical Model

Philosophical approaches to childbirth influence how health care providers intervene and provide care for labouring women (Stark et al., 2016). Within the biomedical model, pregnancy and childbirth are not natural or normal states but rather prone to illness or disorders, and in need of medical management (Lee et al., 2019). Some scholars claim childbirth is portrayed within the model as potentially pathological and dangerous and, therefore, all labouring women are considered *at-risk* hospital patients. Consequently, they are never at low risk (Lupton, 2012; van Teijlingen, 2017). While the

[19] ARM refers to artificial rupture of membranes.

biomedical model, by way of advances in science, technology, and the medical field, has provided enormous benefit to high-risk labouring women, low-risk labouring women are subjected to many unnecessary interventions that are ineffective and reduce the likelihood of achieving a spontaneous birth (Bohren et al., 2017; Davis et al., 2011; Hodnett et al., 2013).

The SOGC *Joint Policy Statement on Normal Birth* (2008) aligns closely with the biomedical model. Normal birth is defined in relation to how *the baby* delivers. That is, even though there may be a complication of pregnancy (e.g., hypertension, gestational diabetes), or medical interventions during labour and birth (e.g., induction, CEFM, regional anesthesia) if the baby delivers spontaneously, then the birth is considered to be *normal*. Further, the birth is considered normal if delivery of the baby occurred in the vertex (cephalic) position between 37 and 42 completed weeks gestation, and was not assisted by forceps, vacuum, or cesarean section. According to the Policy Statement, despite women being considered low-risk when labour begins, women's risk assessment *continues* throughout the entire labour and birth process because "complications can occur" at any point during the intrapartum period. Consequently, the Policy Statement endorses continuous risk assessment during the stages of labour and the use of interventions (e.g., labour augmentation, pharmacological pain relief, and artificial rupture of membranes) as necessary to mitigate or minimize risks, facilitate labour progress, and achieve normal birth.

Hence, intrapartum management chiefly revolves around the identification and management of risk through the use of technologically advanced screening and

monitoring (Lupton, 2012) and care is provided by highly specialized obstetricians (van Teijlingen, 2017). It is not surprising, then, that several informants in my study believed most women require technological interventions (in particular, CEFM for fetal health surveillance) because "the majority of labouring women" admitted to the labour and delivery unit have co-morbidities which puts them at risk. One nurse commented, "So, moms are now older having babies, so with that comes older maternal diseases. Obesity is a big thing" (Nurse Informant). Another explained, "Our population is becoming more and more unhealthy, so we are going towards where we are putting a lot of people on the monitor" (Nurse Informant). The nurses "knew" such risk factors increase the potential for adverse perinatal outcomes as stated in the SOGC's *Fetal Health Surveillance* guideline, and therefore indicated that these labouring women "required" CEFM.

Of note, the EFM trend is not entirely new or unique to this tertiary care center. The EFM trend was apparent more than a decade ago when 90.8% of women who attempted a vaginal birth in Canadian hospitals reported having EFM attachments at some point during their labour compared to the only 6.5% who experienced exclusive auscultation during labour by either stethoscope, Doppler, or fetoscope (PHAC, 2009).

Interestingly, curricula taught in undergraduate nursing maternity courses focus heavily on the concept of "risk" in pregnancy and childbirth. For example, "pregnancy at risk," "pre-existing and gestational conditions," "labour and birth at risk," and "newborns at risk," are all topics covered in detail. Nursing students become very familiar with risk factors in pregnancy and during intrapartum care. Of note, Newfoundland and Labrador Center for Health Information (NLCHI) (2020) reported that out of 2,323 births last year

within the local regional health authority, less than 10% of women (n=199) were diagnosed with gestational diabetes and 10.7% (n=279) were classified as having pre-eclampsia. Although there are no available data on the rate of low-risk versus high-risk births in the province, given these antenatal statistics, one is left to wonder just how "risky" is pregnancy and the birth process?

Susan Shifts from Low-Risk to *At-Risk*

In addition to the partogram flowsheet, the SOGC (2008) *Policy Statement on Normal Birth* and the SOGC (2016) *Management of Spontaneous Labour at Term in Healthy Women* (Lee et al., 2016) were organizational texts that played key roles in the obstetrical team's approach and planning of Susan's care during her intrapartum hospital stay. Upon admission to the unit, despite being assigned a *low-risk* status, a subtle shift occurred in Susan's risk assessment. Based on the definition of active labour in the SOGC (2016) *Management of Spontaneous Labour at Term in Healthy Women*, Susan was in the first stage of labour (i.e., having regular uterine contractions with cervical dilation) and in the latent (early) phase (i.e., the presence of uterine activity) with some progress in cervical dilation (i.e., 0-3 centimeters). Also, Susan was not in active labour because she had spontaneous rupture of membranes, was less than 4 centimeters dilated, and a possible fetal heart rate deceleration was recorded. She was then prescribed oxytocin and assigned an *at-risk* status because she was "contracting too much but not in established labour."

The latent or early phase is usually the longest phase of labour lasting anywhere from 10-12 hours or 2-3 days because contractions tend to be mild and cervical changes

happen slowly. However, it is common for labouring women to arrive at the hospital during this phase (Lee, et al., 2016). Interestingly, when admitted to hospital in the latent phase labouring women are prone to receiving obstetrical interventions including CEFM, epidural anesthesia, oxytocin, and, even, cesarean section (Hemminki & Simukka, 1986; Holmes et al., 2001; Jackson et al., 2003; Klein et al., 2004). In fact, the SOGC in the *Management of Spontaneous Labour at Term in Healthy Women* (Lee et al., 2016) recommends delaying admission to the labour unit until active labour is achieved. Nevertheless, Susan was admitted at 1 centimeter dilation with spontaneous rupture of membranes. I wonder if Susan should have been assessed by the obstetrical team, reassured she was in the early phase of labour, and sent home with instructions to return when she was experiencing stronger contractions or unable to cope at home? Had this occurred Susan might have been more comfortable and been able to relax in a familiar environment. Despite the obstetrical team following policy protocols and guideline recommendations for achieving a safe delivery, in actual fact, Susan may have undergone natural labour and spontaneous delivery without induction and the use of CEFM.

The Friedman Curve "Clock" Approach

Expectations for the duration of the active phase of labour along with the rates of cervical dilation, primarily stem from research published by Friedman beginning in the 1950s (Neal et al., 2010). The Freidman curve enables determination of the *normal* pattern of labour progress. Cervical dilation and effacement are graphically illustrated against hours of labour that have elapsed. Labour progress of an individual patient is plotted on the graph for comparison with the norm (i.e., 0.5-0.7 centimeters dilation per

hour in first-time mothers). Any deviation from the Freidman curve could be indicative of dystocia[20] and warrants close assessment. Although it is not made explicit that the unit's partogram relies on the Freidman curve, there was an underlying urgency to "make contractions stronger" because Susan was "only 1 centimeter with this amount of contractions" as explained by the obstetrical resident.

I reason that the team acted on labour progress cues not from Susan but from indications from the Friedman curve "clock" approach. Susan's cervix had not dilated beyond the 1 centimeter following admission during the night. According to the SOGC *Induction of Labour* guideline (Leduc et al., 2013), it would have been "risky" to wait and allow Susan's innate biological mechanisms to begin and to establish labour spontaneously due to the risk of chorioamnionitis.[21] Susan, as aforementioned, was contracting but not in active labour (i.e., was 1 centimeter dilated, with spontaneous rupture of membranes, and required intervention [oxytocin]). Interestingly, one of reasons oxytocin is prescribed is due to the risk of chorioamnionitis. Chorioamnionitis occurs in 1-13% of term pregnancies (Spenard et al., 2019) and is often associated with membrane rupture, multiple vaginal exams, prolonged labour, and the use of internal fetal heartbeat monitoring devices like CEFM (Petruskavich, 2017). The obstetrical resident indicated there had been a "few cases of chorio in the past" justifying their decision to prescribe oxytocin for Susan.

[20] Dystocia refers to delayed or arrested progress in labour.
[21] Chorioamnionitis is a bacterial infection of the amniotic cavity and is usually diagnosed through clinical findings of maternal fever, maternal and fetal tachycardia, uterine tenderness, and foul odor of amniotic fluid (Petruskavich, 2017).

My field notes indicate Susan had at least two vaginal exams to determine the presence of forewaters and to assess cervical dilation during the early (latent) stage of labour. Susan's situation is similar to what Bergstrom et al. (1992) discovered when they conducted an ethnographic study exploring the use of vaginal exams during the second stage of labour. The researchers concluded that the frequent use of vaginal exams during this stage "communicates the importance of the Friedman curve clock in labour rather than the woman's physiological clock" (p. 17). I deduce that the obstetrical team responsible for Susan's plan of care deferred to the Freidman curve clock as an indication of Susan's progress and to the induction guideline rather than waiting for Susan's physiological capacity to progress to active labour. Such decision-making processes strongly reflect discourse entrenched in the biomedical model.

Safeguarding the Fetus

Barb's focused attention on the EFM machine while sitting at the nursing station demonstrated that she was fulfilling her institutional responsibility to record what is considered institutionally important during labour and the birthing process. The configuration of the partogram flowsheet reveals the profound emphasis on the institutionally sanctioned biophysical data related to fetal well-being along with technological interventions and medications, with, what I judge, is minimal attention focused on the mother as an individual and the provision of 1:1 supportive care measures during labour. Despite the SOGC clinical practice guidelines stating women in active labour *should* receive continuous labour support, one of the nurse informants claimed that

"fetal monitoring is such an important aspect. It's 95% of my job to make sure that baby stays safe and 5% is mom." Another added:

> Until they're in active labour and uncomfortable, you're not necessarily constantly with them. I mean I've had patients before who've wanted me to walk around with them which you can't really do, because you got to sit with your monitor. And once you explain to them, they understand and they usually have two support people with them anyway. But once they ask for pain medication, then I'm kind of like 'okay, maybe I should be in the room with them,' and if anything goes wrong on the graph, I'm in the room to intervene. (Nurse Informant)

As it is designed, the partogram flowsheet appears to reinforce the biomedical portrayal of the fetus as fragile, vulnerable, and susceptible to risks (Bisits, 2016; Lupton, 1999) and fails to acknowledge the labouring woman as a whole person, a human being (Kleppe et al., 2016) as opposed to a biological machine (Zamanzadeh et al., 2015) transporting a fetus. Although nurses are capable of providing a more holistic account of what is happening, many times they do not, as one nurse indicated:

> In my progress note I write: 'Patient received for care at 7:30, settled in birthing room number 2, resting comfortably in semi-Fowlers, connected to EFM and toco, baseline FHR, positive acels, no decels, moderate variability, contractions every 2 to 3 minutes, lasting 60-90 seconds, abdomen palpated, moderate contractions, patient continues to leak clear fluid.' (Nurse Informant)

At one point when Susan's labour accelerated, possibly resulting from the oxytocin that the resident had determined she needed, the fetus began demonstrating signs of possible fetal distress on the graphic printout. Barb instructed Susan to return to her bed and lie on her side even though immediately before this occurred, Barb had just charted, "[Patient] up in the chair, leaning over the bed, excellent, and coping well." As I was observing, Barb commented, "Three complicated variables puts you in the category of an abnormal fetal heart tracing. You go from a normal tracing to boom, boom, boom. Something is going on. I need the resident." Despite her nursing assessment that Susan was "coping well," Barb had to respond to the abnormal tracing with intrauterine resuscitation as directed by the SOGC guidelines, which meant having Susan return to the birthing bed and positioning herself on her side (Dore & Ehman, 2020), followed by Barb notifying the resident or obstetrician (RHA EFM Policy, 2011). The fetus, again, very quickly, became the sole focus of Barb's care. Very little to no consideration was given to how repositioning to the bed impacted on Susan, the labouring woman.

Absence of Holistic Care

In terms of Barb's nursing practice performance, it is evident that fetal well-being assessment and uterine activity assessment fulfilled provincial professional regulatory standards of care but absent was the *holistic* care approach that is an expected practice standard when caring for labouring women in accordance with the *Perinatal Nursing Standards in Canada* (Canadian Association of Perinatal and Women's Health Nurses [CAPWHN], 2018). The holistic model of nursing practice is the foundation of professional practice standards.

Standards of practice are broad, authoritative, principle-based statements that describe the minimal level of performance expected against which actual performance can be measured and is a legal reference for reasonable and prudent practice (CRNNL, 2019). Professional regulatory bodies oversee standards of practice for registered nurses that serve as the benchmarks and criteria against which their conduct and actions are judged to determine whether nursing care meets professional standards. CAPWHN[22] is a nationally recognized nursing specialty association that draws on current evidence to inform nursing practice when caring for women and their newborns. The *Perinatal Nursing Standards in Canada* (2018) document includes several values and guiding principles to which perinatal nurses must uphold in order to provide the highest standard of care. The standards endorse holistic, supportive nursing practice and evidence-based care for women, newborns, and their families. As in the ethnographic account, when Barb presented the list of pain relief options, she skillfully and knowledgably provided an overview of the routine medical interventions on the unit—morphine and epidural anesthesia—with little to no mention of holistic comfort measures with which a nurse could assist. Why did Barb not suggest or assist Susan to avail of a warm shower or bath, or other supportive measures, while early labour continued and as the oxytocin infusion started?

[22] Perinatal nursing is provided across the childbearing continuum. This journey starts with planning the pregnancy (pre-conception), and continues through antenatal, intrapartum, postpartum, and healthy newborn care for the first three months (*Perinatal Nursing Standards*, 2018).

The partogram labour record depicts what the institution considers to be the minimal, expected level of nursing care. The emphasis is monitoring the fetus with less and insignificant attention on holistic nursing care which would entail addressing the needs of the *whole* patient with the integration of physiological, psychological, spiritual, and social needs and by the nurse being present emotionally and physically. Holistic care during the intrapartum period can be achieved through the use of supportive labour techniques that provide emotional support, comfort measures, information, advocacy, and support for the partner (Simkin, 1995). Comforting touch, verbal reassurance, a calming voice, and engagement, are recommended to build therapeutic relationship which engender feelings of trust and safety (Kalström et al., 2015). Touch and other physical and emotional comfort measures are vital to creating what Benner (2004) calls a "disclosive" (p. 349) space; a place where trust and reassurance can occur.

Building a therapeutic relationship between the nurse and the patient during childbirth can promote positive feelings and assist labouring women to cope with the stresses of childbirth (Nilsson et al., 2013). Labouring women have the need to know and to trust their assigned nurse. MacKinnon et al. (2005) discovered women take on the need to "let go" of some of the labour "responsibility" (p. 32) and will disclose this need to a known and trusted nurse. It is noteworthy that labouring women value the nurse's interpersonal skills as more important than technical skills. Mackey and Stepans (1994) determined that although women considered technical skills to be important, the nurse's approach, manner, provision of supportive labour care, and acceptance as a unique human being, were considered most important. Similarly, Brown et al. (2009) concluded

women saw their labour and delivery nurse as a support person, advocate, educator, and provider of continual care.

Absence of Collaborative Decision-Making

Downe et al. (2018) reported women want a safe birth with emotional support from competent, reassuring, and kind clinical staff while at the same time, they want to retain a sense of control through active decision-making during childbirth. However, active decision-making opportunities were not consistently evident in my observational data. Was Susan aware that IA is the optimal method for monitoring her fetus during labour? Was she aware of the risks associated with the use of CEFM? What was Susan's plan for how her fetus would be monitored during labour? Did Susan have a plan? None of these questions can be answered because there is a significant lack of documentation reflecting Susan's initial plans, requests, wishes, or any discussion between Barb and Susan regarding risks associated with CEFM.

The *Client and Family-Centered Care* (CFCC) philosophy of the regional health authority and the Public Health Agency of Canada (2017) *Family Centered Maternity and Newborn Care in Canada* guidelines are texts that state information sharing, participation, and partnership between patients (women and their families) and their health care provider (nurses) should result in collaborative health care decision-making. Susan's care does not reflect these guidelines. According to the regional health authority's *Annual Performance Report* for 2017-2018, one of the organizational priorities is achieving quality and safety through caring and compassionate hospital services founded on the CFCC philosophy. Additionally, the CFCC philosophy is

endorsed in nursing programs in the province during classroom theory, required readings, and clinical rotation. The CFCC is promoted as a best practice approach by both CAPWHN's *Perinatal Nursing Standards in Canada* (2018) and the Public Health Agency of Canada (2017) *Family Centered Maternity and Newborn Care in Canada* guideline and each laud its importance when caring for labouring women and their families. However, none of my study informants spoke of the CFCC philosophy or described how they integrate the philosophy within their practice. Similarly, none of the nurse informants spoke about or referred to how CAPWHN's *Perinatal Nursing Standards in Canada* (2018) informs their nursing care.

According to Lothian (2014), a shared decision-making model implies that patients are provided with information, benefits, and the risks associated with medical interventions. Key to this model is open, honest communication and nurses willing to support patient preferences and decisions even if contrary to the usual care of the institution. Notably absent in the ethnographic account was the lack of detailed explanation provided to Susan of the obstetrical team's interventions, for example, the pros and cons associated with the plan for pain management. I observed the resident ask Barb, "What are you doing for pain?" It was unclear as to whom the resident directed her question. Without an answer from Susan nor Barb, the resident quickly stated, "Give an epidural now, turn off the pit to give baby a break." Barb repositioned Susan to her side while the CEFM traced the baby's heartbeat and then Barb left the birthing room to prepare for an epidural. Neither the resident nor the nurse asked Susan if this was what she preferred, nor did they communicate the consequences of having an epidural in

labour. This is of relevance as epidurals are associated with prolonged labour, increased risk for fever, difficulty passing urine, and instrumental birth (Anim-Somuah et al., 2018). Knowing this vital information would have allowed Susan and her partner to make informed pain management decisions. According to the Canadian Nurses Protective Society (CNPS) (1994), enough information about risks should be explained to the patient to obtain informed consent. Information detailing the ramifications of refusing treatment and an explanation of possible alternatives, should also be included. Susan was not permitted to collaborate in the choice of pain relief nor provided with available pain relief options.

Summary

I have reported the local level findings following IE exploration of nurses' descriptions of the everyday realities of the work they perform in the labour and delivery unit. Through interviews with nurse informants and participant observation, I was able to describe a detailed ethnographic account of a typical nurse fulfilling her fetal health surveillance tasks while caring for a woman in labour. Based on my critical analysis, Barb's practice decisions and behaviours during fetal health surveillance were regulated by organizational texts, namely the partogram flowsheet. Barb's routine engagement with the institutionally sanctioned partogram flowsheet and other organizational texts caused her to devote time and attention to technical tasks, to the collection of biophysical data, and to the promotion of biomedical interventions; and thereby, overlooking the supportive measures critical to the care of labouring women.

I assert that organizational texts mediate ruling relations (that are associated with the biomedical model) and coordinate the work of nurses like Barb and in so doing are fulfilling the institutional textual account of how labour and birth should be represented. The partogram flowsheet does not accurately reflect the lived actualities of women's labour and birth experiences; rather, is more of an encapsulated version of particulars to create a more generalized form. Safeguarding the fetus becomes the exclusive focus of attention while holistic nursing care and collaborative decision-making are of less significance.

References

Anim-Somuah, M., Smyth, R. M., Cyna, A. M., & Cuthbert, A. (2018). Epidural versus non-epidural or no analgesia for pain management in labour. *The Cochrane Database of Systematic Reviews*, *5*(5), Article CD000331. https://doi.org/10.1002/14651858.CD000331.pub4

Benner, P. (2004). Relational ethics of comfort, touch, and solace - Endangered arts? *American Journal of Critical Care*, *13*(4), 346–349. https://doi.org/10.4037/ajcc2004.13.4.346

Bergstrom, L., Roberts, J., Skillman, L., & Seidel, J. (1992). "You'll feel me touching you, sweetie": Vaginal examinations during the second stage of labor. *Birth (Berkeley, Calif.)*, *19*(1), 10–20. https://doi.org/10.1111/j.1523-536x.1992.tb00365.x

Bisits, A. (2016). Risk in obstetrics – Perspectives and reflections. *Midwifery*, *38*, 12–13. https://doi.org/10.1016/j.midw.2016.05.010

Blake, J. & Green, C.R. (2019). SOGC clinical practice guidelines: A brief history. *Journal of Obstetrics and Gynaecology*,*41*, Supplement 2, S194-S196. https://doi.org/10.1016/j.jogc.2019.08.029

Bohren M.A., Hofmeyr G., Sakala C., Fukuzawa R.K.,& Cuthbert A. (2017). Continuous support for women during childbirth. *Cochrane Database of Systematic Reviews*, *(7)*, Article CD003766. https://doi.org/10.1002/14651858.CD003766.pub6

Brown, J. B., Beckhoff, C., Bickford, J., Stewart, M., Freeman, T. R., & Kasperski, M. J. (2009). Women and their partners' perceptions of the key roles of the labor and delivery nurse. *Clinical Nursing Research*, *18*(4), 323–335. https://doi.org/10.1177/1054773809341711

Campbell, M. L., & Gregor, F. (2008). *Mapping social relations: A primer in doing institutional ethnography.* Higher Education University of Toronto Press.

Canadian Nurses Protective Society (CNPS) (1994). Consent to treatment: The role of the nurse. *InfoLAW*, *3*(2). https://cnps.ca/article/consent-to-treatment/

Canadian Association of Perinatal and Women's Health (CAPWHN) (2018). *Perinatal nursing standards in Canada*. https://capwhn.ca/wp-content/uploads/2019/10/PERINATAL_NURSING_STANDARDS_IN_CANADA.pdf

College of Registered Nurses of Newfoundland and Labrador (CRNNL) (2019). *Standards*. https://www.crnnl.ca/document-type/standards

Davis, D., Baddock, S., Pairman, S., Hunter, M., Benn, C., Wilson, D., Dixon, L., & Herbison, P. (2011). Planned place of birth in New Zealand: Does it affect mode of birth and intervention rates among low-risk women? *Birth*, *38*(2), 111–119. https://doi.org/10.1111/j.1523-536X.2010.00458.x

DeVault, M., & L. McCoy. (2002). Institutional ethnography: Using interviews to investigate ruling relations. In J. F. Gubrium & J. A. Holstein (Eds.), *Handbook of interviewing: Context and method* (pp. 751–776). Sage Publishing.

Devault, M., & McCoy, L. (2006). Instituional ethnography: Using interviews to investigate ruling relations. In D. E. Smith (Eds.), *Institutional ethnography as practice* (pp. 15–44). Rowman & Littlefield.

Dore, S., & Ehman, W. (2020). No. 396-Fetal Health Surveillance: Intrapartum Consensus Guideline. *Journal of Obstetrics and Gynaecology Canada: JOGC 42*(3), 316–348.e9. https://doi.org/10.1016/j.jogc.2019.05.007

Downe, S., Finlayson, K., Oladapo, O., Bonet, M., & Gülmezoglu, A. M. (2018). What matters to women during childbirth: A systematic qualitative review. *PLoS ONE*, *13*(4), 1–17. https://doi.org/10.1371/journal.pone.0194906

Friedman E. (1954). The graphic analysis of labor. *American Journal of Obstetrics and Gynecology, 68*(6), 1568–1575. https://doi.org/10.1016/0002-9378(54)90311-7

Groeschel, N., & Glover, P. (2001). The partograph. Used daily but rarely questioned. *Australian Journal of Midwifery: Professional Journal of the Australian College of Midwives Incorporated, 14*(3), 22–27. https://doi.org/10.1016/s1445-4386(01)80021-5

Hemminki, E., & Simukka, R. (1986). The timing of hospital admission and progress of labour. *European Journal of Obstetrics & Gynecology and Reproductive Biology, 22*(1-2), 85-94. https://doi.org/10.1016/0028-2243(86)90093-6

Hodnett, E. D., Gates, S., Hofmeyr, G. J., & Sakala, C. (2013). Continuous support for women during childbirth. *Cochrane Database of Systematic Reviews, (7),* Article CD003766. https://doi.org/10.1002/14651858.CD003766.pub5

Holmes, P.; Oppenheimer, L. & Wen, S.W. (2001). The relationship between cervical dilatation at initial presentation in labour and subsequent intervention. *British Journal of Obstetrics and Gynaecology,108* (11), 1120-1124. https://doi.org/10.1016/S0306-5456(01)00265-0.

Jackson, D. J., Lang, J. M., Ecker, J., Swartz, W. H., & Heeren, T. (2003). Impact of collaborative management and early admission in labor on method of delivery. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 32*(2), 147-157. https://doi.org/10.1177/0884217503252045

Karlström, A., Nystedt, A. & Hildingsson, I. (2015). The meaning of a very positive birth experience: focus groups discussions with women. *BMC Pregnancy Childbirth 15*, (251). https://doi.org/10.1186/s12884-015-0683-0

Klein, M. C., Kelly, A., Kaczorowski, J., & Grzybowski, S. (2004). The effect of family physician timing of maternal admission on procedures in labour and maternal and infant morbidity. *Journal of Obstetrics and Gynaecology Canada, 26*(7), 641-645. https://doi.org/10.1016/S1701-2163(16)30611-9

Kleppe, L. C., Heggen, K., & Engebretsen, E. (2016). Nursing textbooks' conceptualization of nurses' responsibilities related to the ideal of a holistic view of the patient: A critical analysis. *Journal of Nursing Education and Practice*, *6*(3). 106–114. https://doi.org/10.5430/jnep.v6n3p106

Lavender, T., Hart, A., & Smyth, R. M. (2013). Effect of partogram use on outcomes for women in spontaneous labour at term. *The Cochrane Database of Systematic Reviews*, *(7),* Article CD005461. https://doi.org/10.1002/14651858.CD005461.pub4

Leduc, D., Biringer, A., Lee, L., & Dy, J. (2013). SOGC clinical practice guideline: Induction of labour. *Journal of Obstetrics and Gynaecology Canada*, *35*(9), 840–857. https://www.jogc.com/article/S1701-2163(15)30842-2/pdf

Lee, L., Dy, J., & Azzam, H. (2016). Management of spontaneous labour at term in healthy women. *Journal of Obstetrics and Gynaecology Canada: JOGC*, *38*(9), 843–865. https://doi.org/10.1016/j.jogc.2016.04.093

Lee, S., Holden, D., Webb, R., & Ayers, S. (2019). Pregnancy related risk perception in pregnant women, midwives & doctors: A cross-sectional survey. *BMC Pregnancy Childbirth*, *19*, 335. https://doi.org/10.1186/s12884-019-2467-4

Lothian, J. A. (2014). Healthy birth practice #4: Avoid interventions unless they are medically necessary. *The Journal of Perinatal Education*, *23*(4), 198–206. https://doi.org/10.1891/1058-1243.23.4.198

Lupton, D. (1999). Risk and the ontology of pregnant embodiment. In D. Lupton (Eds.). *Risk and sociocultural theory: New directions and perspectives.* Cambridge University Press.

Lupton, D. (2012). "Precious cargo": Foetal subjects, risk and reproductive citizenship. *Critical Public Health*, *22*(3), 329–340. https://doi.org/10.1080/09581596.2012.657612

Mackey, M. C., & Flanders Stepans, M. E. (1994). Women's evaluations of their labor and delivery nurses. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *23*(5), 413–420. https://doi.org/10.1111/j.1552-6909.1994.tb01898.x

MacKinnon, K., McIntyre, M., & Quance, M. (2005). The meaning of the nurse's presence during childbirth. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, JOGNN*, *34*(1), 28–36. https://doi.org/10.1177/0884217504272808

Marx, K. & Engels, F. (2008). *The communist manifesto* (D. McLellan, Ed.). Oxford University Press. (First published as a World's Classic paperback 1992).

Neal, J. L., Lowe, N. K., Ahijevych, K. L., Patrick, T. E., Cabbage, L. A., & Corwin, E. J. (2010). "Active labor" duration and dilation rates among low-risk, nulliparous women with spontaneous labor onset: a systematic review. *Journal of Midwifery & Women's Health*, *55*(4), 308–318. https://doi.org/10.1016/j.jmwh.2009.08.004

Newfoundland and Labrador Center for Health Information (NLCHI) (2020). Contact. https://www.nlchi.nl.ca/index.php/contact

Nilsson, L., Thorsell, T., Hertfelt Wahn, E., & Ekström, A. (2013). Factors Influencing positive birth experiences of first-time mothers. *Nursing Research and Practice*, *2013*, 1–6. https://doi.org/10.1155/2013/349124

Petruskavich S., (2017). Labour and birth at risk. In S. Perry, M. Hockenberry, D. Lowdermilk, D. Wilson, L. Keenan-Lindsey, & C. Sams, (Eds.). *Maternal child nursing care in Canada* (2nd ed., pp. 512–554). Elsevier Canada.

Public Health Agency of Canada (PHAC) (2009). What mothers say: The Canadian maternity experiences survey. Cat.No. HP5-74/2-2009E-PDF.

Public Health Agency of Canada (PHAC) (2017). Chapter 1: Family centered maternity and newborn care in Canada: Underlying philosophy and principles. https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/healthy-living/maternity-newborn-care/maternity-newborn-care-guidelines-chapter-1-eng.pdf

Rankin, J. (2017). Conducting analysis in institutional ethnography: Guidance and cautions. *International Journal of Qualitative Method*, *16*, 1–11. https://journals.sagepub.com/doi/pdf/10.1177/1609406917734472

Rankin, J. M. (2014). The rhetoric of patient and family centred care: An institutional ethnography into what actually happens. *Journal of Advanced Nursing*, *71*(3), 526–534. https://doi.org/10.1111/jan.12575

Regional Health Authority (2011). Electronic fetal monitoring policy. Author.

Regional Health Authority (2013). Induction policy. Author.

Regional Health Authority (2017-2018). Annual performance report. https://www.assembly.nl.ca/business/electronicdocuments/EasternHealthAnnualReport2017-18.pdf

Regional Health Authority (2020). Client and family centered care (CFCC) philosophy. Author. https://www.easternhealth.ca/prc/your-say/cfcc/

Simkin, P. (1995). Reducing pain and enhancing progress in labor: A guide to nonpharmacologic methods for maternity caregivers. *Birth*, *22*(3), 161–171. https://doi.org/10.1111/j.1523-536X.1995.tb00693.x

Smith, D. E. (1987). *The everyday world as problematic.* Northeastern University Press.

Smith, D. E. (1999). *Writing the social: Critique, theory, and investigations*. University of Toronto Press.

Smith, D. E. (2005). *Institutional ethnography: A sociology for people*. Alta Mira Press.

Society of Obstetricians and Gynaecologists Canada (SOGC) (2008). Joint Policy Statement on Normal Childbirth. *Journal of Obstetrics and Gynaecology Canada, 30*(12), 1163–1165. https://doi.org/10.1016/S1701-2163(16)34029-4

Spenard, E., Boucoiran, I., Tordjman, L., Marrié-Mas, A.-É., Bensouda, B., Labbé, A.-C., & Savoie, M. (2019). Evaluation of a clinical protocol for the management of fever in labor in pregnant women at term: A pre-post cohort study. *Journal of Obstetrics and Gynaecology Canada, 41*(5). https://doi.org/10.1016/j.jogc.2019.02.236

Stark, M.A., Remynse, M., & Zwelling, E. (2016). Importance of the birth environment to support physiological birth. *Journal of Obstetrical Gynecological and Neonatal Nursing JOGNN, 45*(2), 285–294. http://dx.doi.org/10.1016/j.jogn.2015.12.008

van Teijlingen, E. R. (2017). The medical and social model of childbirth. *Kontakt, 19*, e73–e74. https://doi.org/10.1016/j.kontakt.2017.03.001

Zamanzadeh, V., Jasemi, M., Valizadeh, L., Keogh, B., & Taleghani, F. (2015). Effective factors in providing holistic care: A qualitative study. *Indian Journal of Palliative Care, 21*(2), 214–224. https://doi.org/10.4103/0973-1075.156506

Chapter Four

Elucidating the Ruling Relations of Nurses' Work in Labour and Delivery

This chapter is the third and final article of this manuscript style dissertation that will be prepared for publication. The chapter is a research article reporting on findings specific to the *ruling relations* of nurses' work in labour and delivery that I uncovered during this institutional ethnographic (IE) exploration.

IE researchers define ruling relations as complex social interactions (or relations) that can exist in the form of bureaucracies, administration, or professional discourses that coordinate the everyday work (i.e., doings) of people in society. As presented in Chapter 3, the biomedical model is a powerful influence on how health care providers manage intrapartum care. To elucidate how the biomedical model exacts influence as a ruling relation or ruling discourse, it was necessary to move beyond the local setting, work experiences, and knowledge of local informants, to an examination of the *extra-local* social organization of ruling. The research question was: *What social relations organize and influence how labour and delivery nurses conduct fetal health surveillance*? As I explored this "bigger picture" to describe how obstetrical biomedical discourse is activated during nurses' everyday work experiences, I uncovered an additional ruling relation that I termed the "medical-legal discourse." Below I present my discoveries after a brief review of the study methods and a discussion of the significance of ruling relations in IE research.

Study Methods

After receiving research ethics approval, I successfully recruited informants from the regional health authority management team (n=3) and from administration (n=2) of the tertiary care center. A nurse who represented a national multidisciplinary professional organization was also recruited. Informants agreed to participate in face-to-face, semi-structured, digitally recorded interviews. Additional interviews with labour and delivery nurses clarified specific details I had uncovered as I shifted focus from the local unit to the extra-local setting. During interviews with nurse informants, I listened for the documents they referred to when they described how they conducted fetal health surveillance. Similarly, when informants from the management team and, or, administration were interviewed and referred to particular documents, they (all informants) provided me with clues as to which texts I needed to obtain and examine. Through analysis of the documents I was able to detect traces of ruling relations and organizational texts in national clinical practice guidelines, patient safety programs, hospital insurance documents, nursing regulatory standards, institutional policies, and patient charts forms/flowsheets.

The Significance of Ruling Relations in Institutional Ethnographic Research

The underlying assumption of institutional ethnographers is that people are the experts in how they live their lives. The aim of IE research is to see, hear, and understand people's everyday life experiences and then to use this understanding as the means to figure out how things are coordinated to occur so that steps can be taken to implement change (Deveau, 2016; Smith, 1987; 2005). People are located in a network of social

relations comprised of sites (local settings) throughout society. Powerful outside (extra-local) forces shape how people live and experience their everyday lives, often without their explicit knowledge or understanding (Campbell, 1998). The extra-local forces are referred to as ruling relations that intersect, order, control, and coordinate the activities and actions of people at the local setting (DeVault & McCoy, 2002). Ruling relations, in addition to bureaucracies, administration, and professional discourses, may include corporations and mass media (DeVault & McCoy, 2006; Smith, 2005). This coordination of people's purposeful activities (i.e., work) occurs on a wide scale that spans across time and geography, and involves multiple sites and people, who do, or do not, know each other and may, or may not, meet face-to-face (DeVault & McCoy, 2006).

Textually-Mediated Discourse

Discourse refers to "a systematic way of knowing something that is grounded in expert knowledge and that circulates widely in society through language, including most importantly language vested in texts" (Mykhalovskiy, 2002, p. 39). Discourse is embedded in the ways individuals think and communicate about people, things, and the social organization of society and the relationships among and between all three (Cole, 2020). While the subject of discourse is often heavily influenced by Foucault's use of the term and the characteristic form of power it signifies, Smith's (2005) conceptualization is more active whereby discourse does not lose sight of the subject. In other words, Smith credits people's use of language, speech, writing, and ideas as the means by which discourse is maintained, perpetuated, and reproduced. For example, the nurses in this study perpetuated dominant biomedical and medical-legal discourses by how they talked

about, described, viewed, and approached childbirth and how they provided care for labouring women.

Smith (1999) contends that texts are chiefly responsible for maintaining, perpetuating, and reproducing discourse. Texts enable domination of discourse by bridging extra-local ideology with local settings because "both in their materiality and symbolic aspect (texts) form a bridge between the everyday/everynight local actualities of our living and the ruling relations" (Smith, 1999, p. 7). Examples of texts are formal policy documents, media reports, patient charts, videos, auditory recordings, social media, computerized programs, or newspapers. IE researchers treat texts as "material artifacts that carry standardizing messages" (Bisaillon 2012, p. 620). It is through texts that ruling relations coordinate and disseminate discursive ideologies (Smith, 1990a). Texts convey the ruling discourses to various people, in myriad locations, at different times. In other words, the discursively organized relations embedded within the texts that people use routinely, infuse their thoughts, understandings, and the activities of their everyday life. Hence, texts are essential because they function as the main tools of ruling (Rankin, 2017). It is important to note that "texts do nothing on their own" (Frampton et al., 2006, p. 38) but are made active by people referring to, reading, filling out, responding to, or reproducing their content (Doll & Walby, 2019).

The Biomedical Model as Ruling Discourse

The biomedical model originates from medicine and medical work. At the core of this model is diagnosis and treatment of disease or illness. It is founded on three principles: a) diseases are pathological conditions caused by biological, chemical, and, or,

physical factors; b) advances in technology and randomized controlled trials produce the best evidence for patient care; and c) disease is a dysfunction of particular body parts (e.g., organs, tissues, cells) (Valles, 2020). Based on these principles, biomedicine has adopted a mechanical metaphor for the human body; it is a machine and physicians are engineers or repair persons ready to fix body parts that malfunction (Nettleton, 2020). This results in the body being interpreted as merely a collection of mechanical systems composed of cells, tissues, and biochemicals (Benner, 2000).

During my IE exploration it became evident that the biomedical model exerts influence as *discourse* in all aspects of intrapartum care. For decades, childbirth has been evolving into a *bio*-medical event. Subsequently, care is often provided as if the birthing process is pathologically dysfunctional rather than a normal, healthy event (Zwelling, 2008). Modern obstetrical care within hospitals often subjects women to institutional routines and medicalized and technological interventions (Bohren et al., 2017; Romano & Lothian, 2008; Zwelling, 2008) with an underlying obstetrical science credited by practitioners to minimize *risks* (Chadwick & Foster, 2014) of adverse outcomes (Bisits, 2016).

Risk surveillance begins as soon as pregnancy is confirmed. For example, women who are 35 years and older are immediately sent for a barrage of tests including blood work, ultrasounds, triple screen,[23] and amniocentesis to rule out certain genetic conditions. During the second and third trimesters, women are monitored closely for

[23] The triple screen blood test measures the levels of three substances: alpha-fetoprotein, human chorionic gonadotropin, and estriol. Levels of these substances may suggest the fetus has certain birth defects such as Down syndrome, spina bifida, or anencephaly. These tests are not conclusive and require further investigation with amniocentesis to verify findings from triple screen (healthlinkbc.ca).

development of such conditions as pre-eclampsia, intrauterine growth restriction, gestational diabetes, or for the risk of preterm labour or birth.[24] Swabs for Group B Streptococcus are taken to assess sepsis risk for the woman and infant.

The birthing process is merely mechanical if viewed through the lens of the biomedical model (Davis-Floyd, 2001). The process is inherently defective and thus in need of specialized medical monitoring. In addition, labouring women are objectified, void of thought or feeling, and as such, it is expected that women will be readily exposed to insertion of intravenous infusions, monitors, and catheters. More believable information regarding labour and birth must therefore be obtained from sophisticated technological machines than that attained through the senses or through women's verbal reports. All these measures are deemed necessary to achieve good birth outcomes. For example, the use of the continuous electronic fetal monitor (CEFM) provides vital information related to fetal well-being during labour. The EFM machine can wirelessly transmit data to monitors outside the birthing room. Centralized fetal monitoring at the nurses' station means nurses can view screens showing data related to the status of the fetus, (Goldberg, 2002), and nurses do not have to be present at the bedside collecting data related to the status of the labouring woman.

Most women in Canada deliver their babies within hospital environments (CIHI, 2020) and are under the care of either obstetricians (58%) or family medicine physicians (34%). A small percentage are under the care of midwives (6%) (PHAC, 2020). Registered nurses who work on labour and delivery units care for mothers during labour

[24] These are examples of conditions that are considered to be high-risk conditions of pregnancy.

and birth (Van Wagner, 2016). The tertiary care center within which my IE exploration took place offers care for women experiencing either low- or high-risk pregnancies including triage, and labour and delivery services for the entire province. Within the labour and delivery unit, women receive obstetrical care during prenatal, intrapartum, and postpartum periods from either obstetricians or family medicine physicians. While these groups of physicians can perform deliveries, their skills are different. Obstetricians are considered *high-risk* specialists who receive advanced education and training related to conditions unique to women's reproductive system and complex pregnancies (Royal College of Physicians and Surgeons, 2019). Family medicine physicians provide prenatal, intrapartum, postpartum, and newborn care for low-risk women and will consult obstetricians if women develop complications or risk factors during pregnancy and, or, the intrapartum period (Royal College of Physicians and Surgeons, 2019). At times, depending on the severity of risk or complication, family medicine physicians will refer women to obstetricians who may become the primary health care provider for the duration of the perinatal period (Royal College of Physicians and Surgeons, 2019). There are approximately 14 obstetricians and seven family medicine physicians on staff at this tertiary care center. Most of the labouring patients on the unit are cared for by obstetricians, obstetrical residents, and medical students whether or not they are considered low- or high-risk. Currently, no midwives provide obstetrical care within this regional health authority.

Medical-Legal Discourse

Another discourse discovered/uncovered during this IE exploration is medical-legal discourse. Medical legal discourse is founded on health care, the law, the responsibilities of health care providers (e.g., physicians, nurses), and the rights of patients. Each province has a legislated governance structure and disciplinary procedures for the nursing profession, primarily through the Registered Nurses Act. Legislation governs the nursing profession and serves to ensure that nurses' decisions and actions are consistent with current legal standards. It also acts to protect nurses from liability, and at the same time, protect the public (patients) who receive nursing care. The law requires nurses to be competent and safe. Nurses are held legally accountable for their actions and can be involved in legal proceedings including professional discipline, civil lawsuits, criminal prosecutions, and grievances (Canadian Nurses Protective Society [CNPS], 1999; CNPS, 2020; Kozier et al., 2018). I uncovered that the major concern for many of the nurse informants was their fear of professional discipline, losing their license to practice and, or, their job, and being named in civil lawsuits.

Litigious Practice Threat

According to Accreditation Canada, Healthcare Insurance Reciprocal of Canada (HIROC), the Canadian Medical Protective Agency (CMPA) Salus Global (2016), and the Canadian Nurses Protective Society (CNPS) (2002), obstetrics is well established and well known as a high-risk practice domain with malpractice or negligence lawsuits being quite common, particularly in relation to fetal health surveillance during labour. Perinatal nursing is considered a specialized area (Canadian Nurses Association, [CNA], 2021)

which implies a higher standard of care because a more specialized set of skills and knowledge are required (including fetal health surveillance). Hence, there is a direct implication for nurses' work in labour and delivery because—according to CNPS (2002)—the law recognizes that monitoring fetal well-being during labour is a nursing responsibility. Additionally, the Canadian Association of Perinatal and Women's Health Nurses (CAPWHN) offer a set of practice standards and guidelines that includes the SOGC *Fetal Surveillance: Intrapartum Consensus Guideline* (Dore & Ehman, 2020). Labour and delivery nurses are also be held to these standards.

In malpractice cases, the patient (plaintiff) alleges harm caused by the actions or inactions of the named defendant(s) and seeks money as compensation for injuries suffered while in the care of the defendant(s) (CNPS, 2007). If nurses are identified in a civil lawsuit, they are usually represented by the employer's lawyer since nurses are employees of a hospital or health authority. This identification or naming of nurses constitutes an allegation of negligence (CNPS, 2004). Negligence is defined as the nurses' failure to provide the care that a prudent nurse with the same credentials would provide in similar circumstances and according to a certain set of standards (Shaprio, 2019). Nurses are found liable for negligence if it is established that the nurse owed a duty of care to the patient; the nurse did not carry out that duty; the patient was injured; and the nurse's failure to carry out that duty caused the injury (Shaprio, 2019). The following is a synopsis of how this occurs:

- harm is inflicted on the patient;

- it is determined the cause is a breach in the standard of care based on evidence introduced by lawyers involved in the lawsuit; and
- examples of the evidence to determine standard of care include the patient's chart, professional standards of practice, institutional policies, and testimony from those involved in the case or those with knowledge about the unit's functioning (CNPS, 2004; 2007).

Activation of Medical-Legal Discourse

Health care institutions (hospitals) work together with the Canadian Patient Safety Institute (CPSI) and put in place measures to minimize harm occurring to patients (women) during their hospital stay (intrapartum experience). However, despite these safety measures being in place unfavorable outcomes do occur. Similarly, when society views pregnancy as a natural event any unexpected or adverse outcome could result in allegations of negligence. As such, poor obstetrical outcomes can trigger activation of medical-legal discourse.

Although the most common adverse event reported in Canada is obstetrical trauma,[25] the focus on preventing harm to the baby at the expense of the mothers' physical and emotional well-being is significant. The majority of birth trauma cases that lead to medical malpractice claims are generally not related to birth injuries the mother experiences; instead, the cases are pursued when the baby suffers a brain injury (Miller, 2017). When an adverse outcome occurs during childbirth specifically as it relates to the

[25] Obstetrical trauma refers to lacerations occurring on the cervix, vagina, vulva, and other pelvic organs during vaginal birth (American College of Obstetricians and Gynaecologists [ACOG], 2018).

baby, patients are encouraged to sue due to the financial burden placed on the family and the costs involved in care needs (Rokosh, 2020). Lawyers involved in birth injury cases typically sue for liability and damages, and include pain and suffering, loss of income, and costs of care needs. These cases can result in multimillion-dollar settlements due to the life-long expenses required to care for the child (Rokosh, 2020).

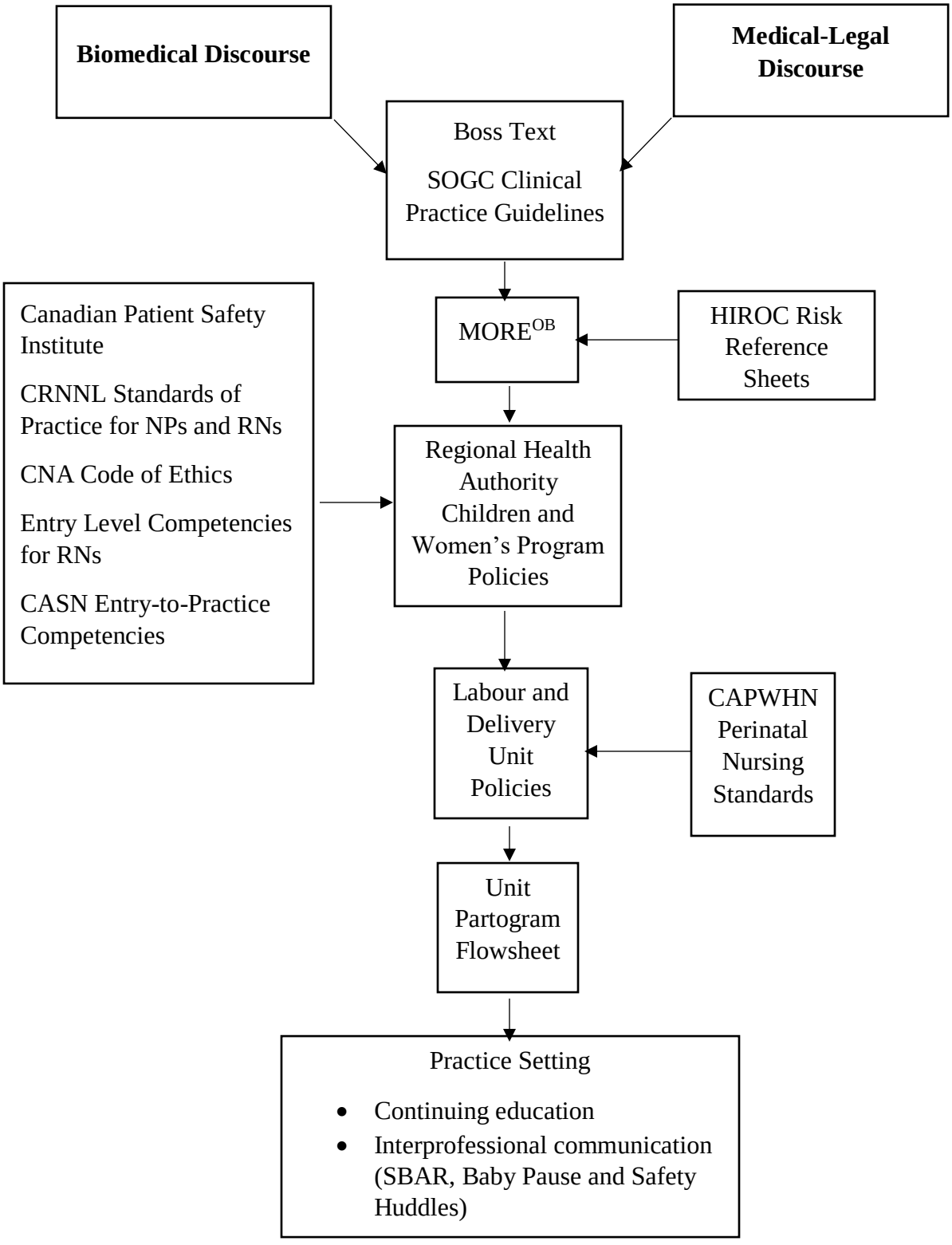
Nurse informants spoke of a case on their labour and delivery unit in which a significant adverse event occurred and "destroyed the morale on the unit." One nurse informant stated, "We haven't rebounded from it even though it's been a number of years." According to several nurses' descriptions, a patient had suffered an obstetrical trauma and the baby died. Shortly after the event the two nurses involved were suspended from their jobs for one month, were reported to the professional practice team, and a formal complaint was made to the province's licensing body by the regional health authority. According to my informants the two nurses never worked again in labour and delivery. Many of my study informants commented how easily the same thing could have happened to them and how shocked they were when they learned of the "punishments" their co-workers had received. They claimed that "everyone was freaking out"; there was "fear of liability"; and, "you need to make sure you kind of cover your butt because there have been lawsuits." From the above statements made by the nurse informants, one can discern they were distressed, tormented, and fearful due to how the adverse event had been handled by the institution and because of the discipline their colleagues had received.

Intertextual Hierarchy

I uncovered that ruling discourses are positioned at the top of the social organization of nurses' work in labour and delivery. The intertextual hierarchy in Figure 1, below, illustrates the infiltration of biomedical and medical-legal discourses through an interconnected textual pathway beginning with the boss text. The intertextual hierarchy of organizations are constructed by "boss texts" (Smith & Turner, 2014, p.10) which are explained by Smith (2006) as the regulatory or higher order texts. Boss texts regulate, govern, and standardize subordinate level texts within organizations (Doll & Walby, 2019). SOGC clinical practice guidelines (e.g., *Fetal Health Surveillance Intrapartum Consensus Guideline*, 2020) is the boss text boss that governs the management of intrapartum care, fetal health surveillance, and is foundational to organizational texts discovered in my study. In fact, the SOGC *Fetal Health Surveillance* clinical practice guidelines (Dore & Ehman, 2020; Liston et al., 2007, 2018) appear to be the boss text that hierarchically orders organizational unit policies, standards, and patient chart forms (e.g., the partogram flowsheet) that are routinely used by nurses during the care of labouring women. As explained by Smith (2006), the boss text "governs the work of inscribing reality into a documentary form by providing a discursive frame for those working in organizations, hence, orientating their observing and report writing work to certain elements of local actualities" (p. 65). Consequently, as nurses engage these texts, they also activate the ruling biomedical and medical-legal discourses.

Figure 1

Intertextual Hierarchy



The SOGC is a national specialty group founded by physicians whose goal is to promote excellence in the practice of obstetrics and gynecology and to advance the health of women. The organization is considered to be the national leader in offering evidence-based clinical practice guidelines (Blake & Green, 2019). However, it is important to note that institutional uptake of these guidelines is not mandated and hence does not require health care providers to abide by them. Nevertheless, because they are developed based on the "best" available medical evidence, they have become the leading authority and form the basis for practice policies and the standards expected for medical and nursing practice across Canada. One of my study informants representing SOGC explained,

> The guideline is as good as people who read it and how it gets implemented at the hospital level. This is what we recommend based on best evidence and where there is a lack of evidence based on professional consensus. So, what we hope the organizations will do, read SOGC guidelines is to adopt them and say, 'okay here's the guidelines, we adopt this, we formally adopt this as a policy for our organization and this is how we enact it as a policy.' So, then it becomes an organizational policy. So, nurses are then required to practice within their organizational standards and their policies. (Informant, SOGC Representative)

The SOGC clinical practice guidelines also inform a textually-mediated educational program ($MORE^{OB}$) that is centered on the provision of obstetrical care. The $MORE^{OB}$ program that was originally developed by the SOGC (Blake & Green, 2019) is the next text within the intertextual hierarchy and flows from the boss texts.

MORE^{OB} Program

MORE^{OB} is an interdisciplinary obstetrics risk and error reduction program utilized in many hospital birthing units across Canada. This program was developed by Dr. Kenneth Milne, then the acting vice president of the patient safety division of SOGC. After a successful pilot of the program in various Canadian hospitals in 2002, SOGC approached the national hospital insurance provider Healthcare Insurance Reciprocal of Canada (HIROC) to help bring the underlying principles embedded in the MORE^{OB} program to other clinical areas. With both organizations sharing a common interest of improving patient safety, they formed Salus Global Corporation[26] where MORE^{OB} is now housed.

The MORE^{OB} program aims to create a culture of safety in obstetrical units by using high reliability organization (HRO) principles (MORE^{OB} 2019). HRO principles include awareness of systems that influence patient care and outcomes, a culture that promotes an organization and teamwork, and a commitment to ongoing training and learning (Reszel et al., 2019). The focus is on the care of pregnant women in hospitals with emphasis on teamwork, effective communication, interdisciplinary education (e.g., for nurses, midwives, family physicians, obstetricians), opportunities to review normal and abnormal events, and the involvement of health care providers in skills practice and emergency drills. The program claims to bring together most health care providers in the labour and delivery unit through educational workshops and alleges to provide the means

[26] A specialty consulting and implementation firm that assists health care organizations improve performance and quality outcomes through increased interprofessional collaboration.

to eliminate a culture of blame in hospitals. The MORE^{OB} program uses a "train the trainer" approach where a core interdisciplinary team is recruited by the hospital and is trained and supported by Salus Global to implement the program. A series of hands-on *evidence-based* workshops and readings, designed to improve birth outcomes, are included. Many of the MORE^{OB} educational workshops focus on adverse events and are informed by the SOGC's clinical practice guidelines.

The program includes three evidenced–based modules: *Learning Together, Working Together,* and *Changing the Culture* (Reszel et al., 2019). Each module is expected to be completed over a period of 1 year with all members of the health care team jointly participating at the same time. Fetal health surveillance education is included in one of three modules and is divided into two separate chapters. The initial chapter reviews and discusses the following biomedical knowledge in great detail: fetal and utero-placental circulation and physiology, oxygenation of the fetus, factors that impact on fetal oxygen levels, fetal hypoxia, factors associated with cerebral palsy, and neonatal encephalopathy. The second chapter addresses material specific to fetal health surveillance during labour. It is interesting to note that the first MORE^{OB} workshop held at this site was on fetal health surveillance and included practising how to interpret and classify fetal heart rate tracings.

The regional health authority initiated the MORE^{OB} program in 2018. Large posters displayed throughout the labour and delivery unit publicize the MORE^{OB} program for health care providers and visitors. These posters acknowledge the high-risk nature of

obstetrical care and are also intended to act to provide public assurance that the regional health authority is committed to achieving safe outcomes for mothers and their babies.

HIROC Risk Reference Sheets

Situated at the same hierarchical level as the MORE^{OB} program, is the Healthcare Insurance Reciprocal of Canada (HIROC), which provides insurance for health care institutions and (as part of its mandate) is also focused on safety in health care. HIROC highlights patient safety knowledge from insurance claims and makes this knowledge available to health care institutions and practitioners (Accreditation Canada, HIROC, CMPA, & Salus Global Corporation, 2016) through the development of a list of the top leading risks of the costliest claims within hospitals. These risks are published in *Risk Reference Sheets* and are available on the HIROC website. Through the *Risk Reference Sheets,* HIROC offers mitigation strategies to reduce the general risk of patient safety events and makes recommendations to regional health authorities to put in place patient safety measures that reduce adverse events from occurring in labour and delivery. Patient safety measures include the implementation of the national MORE^{OB} program in the obstetrical program. Interestingly, the top five obstetrical risks are also among the top 30 of all risks within acute care organizations (Accreditation Canada, HIROC, CMPA, & Salus Global Corporation, 2016). Out of the five obstetrical risks, three are directly related to fetal health surveillance—*Failure to Monitor or Document Fetal Status, Failure to Communicate Fetal Status,* and *Failure to Interpret and Respond to Abnormal Fetal Status*.

Regional Health Authority Children and Women's Program Policies

Moving down the intertextual hierarchy are the regional health authority policies specific to the children and women's program. According to the website, the program provides primary, secondary, and tertiary care services to children (up to 18 years of age) and to women requiring obstetrical or gynecological services throughout the province. Within the program, well over ten thousand women and children receive medical care each year. This is accomplished by developing higher level, broad, and comprehensive policies that are extensive and specific enough to be implemented at various sites within the program. Evident in the hierarchy is how the children and women's program policies flow from the SOGC clinical practice guidelines and MORE^{OB} program. For example, the children and women's health program's EFM policy requires any health care provider (e.g., nurses) who performs CEFM, to interpret, classify, and record findings according to the SOGC *Fetal Health Surveillance: Intrapartum Consensus Guideline* (Dore & Ehman, 2020), including documentation of communication with the physician in the patient chart (e.g., progress notes). These guidelines are also taught during the MORE^{OB} fetal health surveillance workshops.

Canadian Patient Safety Institute

Continuing at the same hierarchical level and influencing the regional health authority's children and women's program policies is the Canadian Patient Safety Institute (CPSI). This institute was established by Health Canada in 2003 and is a nationally funded organization that works with governments, health organizations, leaders, and health care providers to promote improvement in patient safety (CPSI,

2021a). The CPSI website outlines specific tools and resources to prevent patient safety incidents. Of the many harm reducing strategies and approaches offered, the *Hospital Harm Improvement Resource* (CPSI, 2021b), proposes specific practices to prevent unintended outcomes (harm) occurring to patients while hospitalized. A compilation of *evidence-informed* practices is provided for health care providers to consider that could improve patient safety and prevent adverse events from occurring.

Nursing Regulatory Standards

Located at the same hierarchical level to inform regional health authority children and women's program policies, are regulatory standards. Registered nurses in all provinces and territories are regulated by provincial regulatory bodies. In Newfoundland and Labrador, the regulatory body for registered nurses is the College of Registered Nurses of Newfoundland and Labrador (CRNNL). The mandate of the CRNNL is to protect the public through self-regulation of the nursing profession as prescribed by the *Registered Nurses Act* (2008). As such, the CRNNL has the legislative authority to set standards. For example, *The Standards of Practice for Registered Nurses and Nurse Practitioners* (2019) establishes "the regulatory and professional foundation for nursing practice" (p. 2). This document consists of four standards which registered nurses (and nurse practitioners) must follow in all practice roles. Similarly, the CRNNL released new *Entry-Level Competencies (ELCs) for the Practice of Registered Nurses* (2019). This document was developed in collaboration with other Canadian nurse regulators and was updated to "ensure inter-jurisdictional consistency and practice relevance" (p.1). The CRNNL outlines seven overarching principles informing what is expected of entry-level

registered nurses and highlights how they are prepared as generalists to practice safely, competently, compassionately, and ethically, through evidence-informed practice. In addition, nurses are ethically mandated by the *Code of Ethics* to provide safe, competent, compassionate and ethical nursing care (CNA, 2017). Other formal professional nursing organizations such as the Canadian Association of Schools of Nursing (CASN) who represent undergraduate and graduate nursing programs in Canada, published *Entry-to-Practice Competencies for Nursing Care of the Childbearing Family for Baccalaureate Programs in Nursing* (2017). This document reflects the core competencies related to the nursing care of childbearing families that all baccalaureate nursing students in Canada should acquire over the course of their undergraduate education. Specifically, Indicator 2.6 requires nursing students to provide evidence-informed nursing care in relation to common perinatal health concerns during pregnancy (p. 10).

Labour and Delivery Unit Policies and the Partogram Flowsheet

Continuing down the hierarchy and flowing from the regional health authority children and women's program policies are the specific labour and delivery unit policies and the partogram flowsheet. The policies and patient chart forms (i.e., flowsheets) are unique to the unit. The labour and delivery unit policies and the partogram flowsheet are strongly aligned with the SOGC clinical practice guidelines. As described in detail in Chapter 3, the partogram flowsheet is designed for collection of biophysical data. Data pertain to maternal vital signs, contraction pattern and strength, cervical dilation, fetal heartbeat details, medications, and intravenous therapies. At the same hierarchical level are the CAPWHN (2018) *Perinatal Standards* which also *should* influence the unit

policies and the partogram flowsheet. A continuous labour support policy exists; however, only one small area on the partogram is designated as space for recording supportive measures and nurses are restricted to using 11 codes.

Practice Setting

Finally, the labour and delivery practice setting is situated at the bottom of the intertextual hierarchy. The unit has instituted particular practices recommended by CPSI, SOGC clinical practice guidelines, and the MORE^{OB} program, all designed to further assist with maintaining patient safety within labour and delivery. These practices include a mandatory continuing education course on fetal health surveillance and interventions aimed at improving interprofessional communication.

Continuing Education

All registered nurses working within the unit and physicians who provide obstetrical care are required by the regional health authority to complete the Canadian Perinatal Program Coalition's (2009) *Fundamentals of Fetal Health Surveillance* offered through a western Canadian university. This is an online, 8-hour course consisting of a manual, an exam, and a certificate of completion. The SOGC *Fetal Health Surveillance* guideline underpins and informs the curriculum (Blake & Green, 2019). Course content is focused on participants understanding fetal and utero-placental physiology in relation to alterations in fetal heartbeat patterns. The overall goal is to improve awareness, recognition, and response when fetal compromise is suspected. This education program appears to be very similar to the two chapters on fetal health surveillance included within the MORE^{OB} program.

Labour and delivery nurses are required to complete this fetal health surveillance course every 2 years. This recommendation is in keeping with recent SOGC guidelines (Dore & Ehman, 2020) and is endorsed by the Canadian Association of Midwives (CAM) and the Canadian Association of Perinatal and Women's Health Nurses (CAPWHN). The SOGC recommends an 8-hour, interdisciplinary, fetal health surveillance workshop within 30 days of finishing the online course. The unit currently has seven trained fetal health surveillance instructors (who are also labour and delivery nurses), ready to offer the educational sessions when needed. Sessions include interpreting and classifying CEFM tracings by applying the theory from the online course.

Interprofessional Communication

Ineffective communication among team members is one of the major contributors to adverse obstetrical events in Canada (Accreditation Canada, HIROC, CMPA, & Salus Global, 2016). Therefore, effective communication within interdisciplinary teams is considered key to ensuring patient safety (Lyndon et al., 2011). This unit has instituted a number of communication tools to facilitate effective communication among health care providers including SBAR, Baby Pause, and Safety Huddles.

SBAR (*situation*, *background*, *assessment*, *recommendation*) is a communication tool thought to improve interprofessional communication and patient outcomes (Curtis et al., 2011), and is used by nurses on the unit. The acronym is posted throughout the unit (e.g., on back of staff bathroom doors) and in the birthing rooms for the convenience of nurses (see Appendix F). The structure of the reporting tool is designed to standardize how important information is relayed to physicians when an immediate response is

required. SBAR is believed to help nurses organize their thoughts and provide a brief, structured, clear, and concise report. This approach, therefore, assists nurses to align their communications style in a manner that is more consistent with that of physicians with the goal to improve interprofessional communication (Hartrick Doane & Varcoe, 2021; Wang et al., 2018).

Baby Pause was created by two nurse educators and is a component of the British Columbia Patient Safety and Learning System that is a web-based tool for health care providers wanting to learn about or report patient safety events, near misses, and hazards. Baby Pause is a patient safety initiative intended to improve patient outcomes and reduce safety events related to fetal health surveillance and the loss of situational awareness (Fraser Health, 2014). Situational awareness is the ability to maintain a "bird's eye view" of what is going on, to think ahead, and be able to share it with co-workers (Edozien, 2015). The loss of situational awareness can occur when there is stress, or fatigue is high, a lack of understanding as to how to correctly interpret findings, or human error. Baby Pause is meant to reduce loss of situational awareness from happening by having health care providers make a conscious effort to assess fetal well-being, primarily by checking the CEFM graphic printout to detect problems early.

Safety Huddles is another communication strategy introduced by the regional health authority. The strategy consists of short meetings of members of the interdisciplinary health care team. Meetings are no more than 10-15 minutes in duration. The aim of Safety Huddles is to proactively enable the health care team to focus on patient safety through team communication and the empowerment of staff to speak up

and share patient safety concerns (HSO & CPSI, 2020). Concerns raised during Safety Huddles are then to be directed to the appropriate person or groups for resolution, such as supervisors or patient safety committees (HSO & CPSI, 2020).

In the next section I discuss what happens when patient safety incidents occur in labour and delivery. Specifically, I illustrate how incidents are managed within the regional health authority by way of an ideological circle. Also graphically depicted is the process by which recommendations following an incident are implemented to prevent similar occurrences from happening in the future.

Patient Safety Incidents

Patient safety incidents[27] are defined as "an event or circumstance which could have resulted in or did result in unnecessary harm to a patient" (CPSI, 2011, p. 11). There are approximately 380,000 babies born in Canada every year (Statista, 2020) and the majority of births occur safely (CMPA, 2018), but patient safety incidents within labour and delivery can occur involving the neonate, the mother, or both. Susceptibility to a safety incident is escalated due to the involvement of numerous health care providers from various disciplines, the high acuity, and the unpredictability of events (Murray-Davis et al., 2015). According to HIROC (2015), any suspected injury, harm, or neurological impairment associated with the management of labour, delivery, resuscitation, and, or care during the postpartum period as it relates to the neonate are considered to be adverse neonatal events. The list is extensive and includes conditions

[27] Patient safety incidents are now referred to as: 1. *Harmful incident*. A patient safety incident that resulted in harm to the patient. Replaces "adverse event," "sentinel event," and "critical incident." 2. *No-harm incident*: A patient safety incident that reached a patient but no discernible harm resulted. 3. *Near miss*: A patient safety incident that did not reach the patient. Replaces "close call."

such as fetal asphyxia, meconium aspiration pneumonia with suspected poor outcome, shoulder dystocia with short or long-term injury, and errors or omissions contributing to neonatal harm or death. Adverse neonatal events occur in 10% of cases (Kaplan & Ballard, 2012; Pettker, 2011).

Reporting and Review Processes

Patient safety incidents are often complex and involve many contributing factors. Therefore, a hospital reporting system is recommended (CPSI, 2021c). Within the site of my IE study, patient safety incidents are reported through a computerized clinical safety reporting system. One of my study informants explained that "if it's a 5 or 6 level occurrence which is usually permanent harm or death, it's usually a multidisciplinary issue. And then I'll do my review, and the Chief will do their review" (Informant, Nurse Manager). Nurses on the labour and delivery unit are expected to report patient safety incidents when they occur (Canadian Nurses Association, 2017). Once submitted through the clinical safety reporting system, it becomes textually represented as *a case* and triggers a series of institutional actions. The case is immediately sent to the Quality Patient Safety and Risk Management Department [QPSRMD] of the regional health authority and to the nurse manager. When the Risk Management Consultant (who acts as a HIROC liaison) receives notification that an incident has occurred and there is suspected harm to either mother, neonate, or both, the Risk Management Consultant is immediately required to report the incident to the national HIROC representative (HIROC, 2015). "We have an obligation to report that, because why? We have to protect our people and so here is the HIROC piece, right?" (Informant, Risk Management

Consultant). Immediate reporting to the regional health authority is vital to enable HIROC representatives to begin an early investigation of the incident while information and details remain fresh in people's minds (HIROC, 2015). Safety and risk personnel from the regional health authority will begin a review by examining the patient's chart and by speaking with the nurse(s) involved: "I'll interview nurses, the manager also speaks to the nurses, and the nurses' notes [are read and reviewed]" (Informant, Quality and Safety Leader). This is a critical juncture because it is potentially the initial activation of medical-legal discourse by the lawyer and the patient or family, involved.

Once the clinical safety reporting system files the case an internal formal review and detailed examination are initiated. Organizational texts (such as the partogram flowsheet and the progress notes), provide, a supposedly, objective construction of the patient safety incident that is essential in the managerial determination of what occurred, what was done, by whom, and when. The quality assurance personnel, along with the unit nurse manager, MORE^{OB} Quality Improvement Coordinator, the Medical Chief of Obstetrics, and the perinatal provincial educator, review the entire patient chart (including documentation in the partogram flowsheet) to assess the level of care provided by the health care team during the incident. At this point in the review process the team is looking to identify system related issues which involve "anything possible that might have affected the decision-making at the time that might have contributed to the outcome—patient factors, the staff, team decision-making, education, organization policies, standards, and or regulations" (Informant, Quality and Safety Leader).

Nursing and medical care are appraised through reviewing the partogram flowsheet data, CEFM graphic printouts, and narrative progress notes to ascertain a clear understanding of the case. Reviewers rely on the SOGC guidelines, MORE^{OB} education, UpToDate,[28] and organizational and unit policies, as their reference resources. If it is determined there is a violation of the standards of nursing practice, a separate work process begins. The partogram flowsheet and narrative progress notes become a "technology of surveillance" (Rankin & Campbell, 2009, para 31) as explained in the following: "If we feel that there's a combination of system issues and [individual] accountability issues, the program will take the accountability route and we'll follow through with the quality route" (Informant, Quality and Safety Leader). The nurse manager notifies the Professional Practice for Nursing Committee of the case. Organizational policies, CRNNL standards of practice, MORE^{OB} recommendations, and SOGC guidelines are consulted. If it is determined that practice is not consistent with the standards, unit policies, or national guidelines, then either the nurse manager or the Professional Practice for Nursing Committee has a duty to report their evidence to the Director of Professional Conduct Review within the provincial nursing regulatory body as a formal complaint (Registered Nurses Act, 2008).

If there are no individual accountability issues, the team reunites and compares findings. If discrepancies within the reports are found, the review team will deliberate until consensus is reached: "If we disagree on, which is what most people disagree on, what to call certain decels. And so, we'll make our case and then we'll talk it out until we

[28] UpToDate is an online database used for clinical resources.

come to an agreement and usually one of us will say, 'Oh yeah, that totally fits the definition of this'" (Informant, MORE^{OB} Quality Improvement Coordinator). Once the team review is complete the quality assurance department makes specific recommendations at the system level (e.g., new policies and protocols) or proposes changes that are directed at the level of the obstetrical program and labour and delivery unit (e.g., nursing and medical practice, procedures, partogram flowsheet adjustments) to prevent such a reoccurrence.

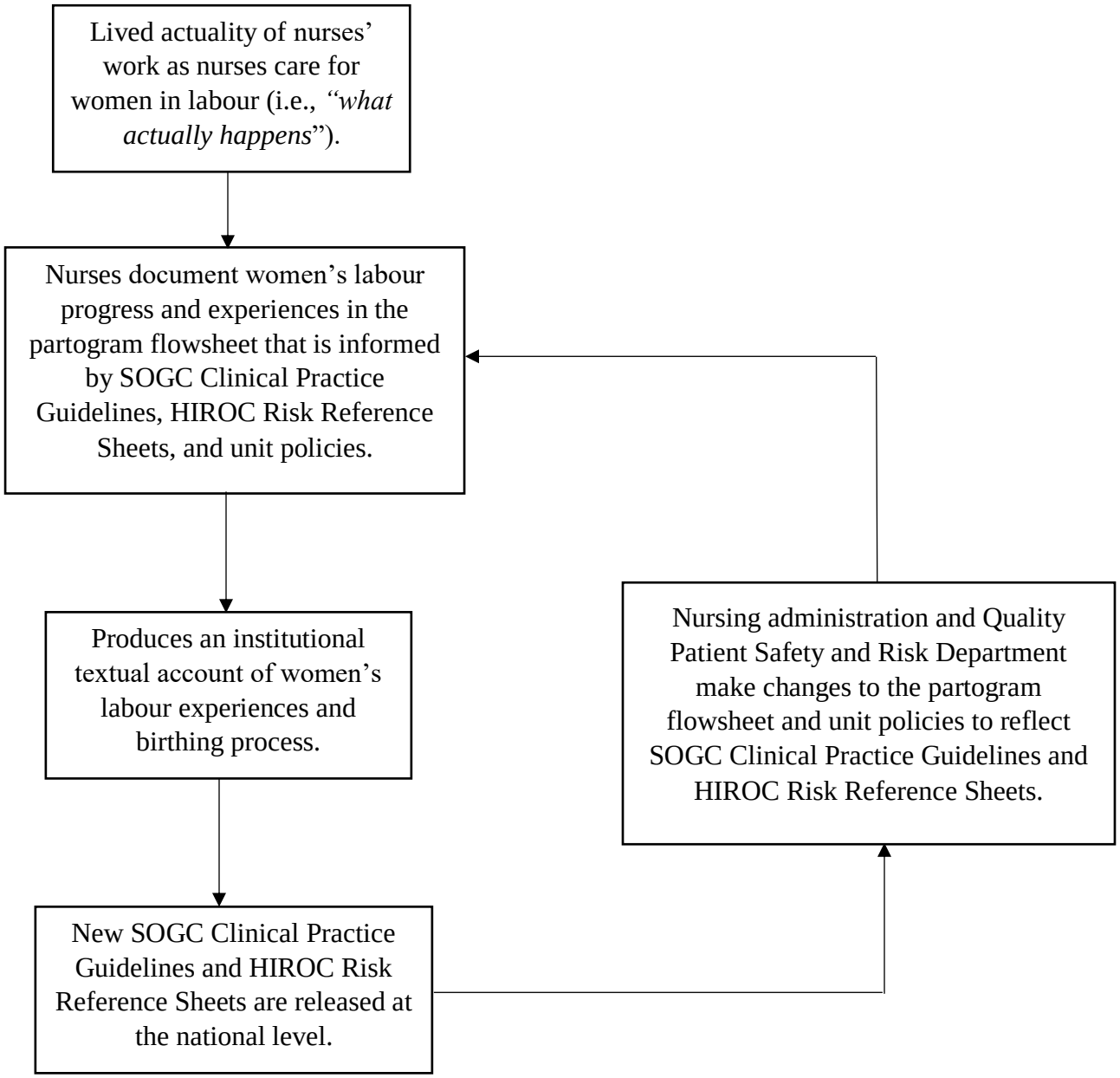
The Ideological Circle

An ideological circle is a textually coordinated, circular process through which institutions "can virtually invent the environment and objects corresponding to its accounting terminologies and practices" (Smith, 1990b, p. 96). The ideological circle in Figure 2, below, portrays how the intertextual hierarchy (i.e., Figure 1) may be reinvented or reproduced when the labour and delivery unit undergoes internal review following a patient safety incident. The internal review of the patient safety incident requires actualities in subordinate levels of the tertiary care center (i.e., the labour and delivery unit) by way of the patient chart (partogram flowsheet and narrative progress notes) to provide the what, by whom, and when, of the case which signifies translation into an explanatory account that forms the interpreted representation of women's labour experiences (Yan, 2003). Schematically depicted in Figure 2, is the evolving self-fulfilling circular loop. SOGC's clinical practice guidelines and HIROC's safety recommendations in the *Risk Reference Sheets* activate and reinforce ruling relations (i.e., biomedical and medical-legal discourses) if the internal reviewers (Nursing

Administration and the Quality Patient Safety and Risk Management Department) propose changes to SOGC guidelines, unit policies or to nursing regulatory criteria and practice standards.

Figure 2

Ideological Circle



Organizational texts (unit policies and the partogram flowsheet) are infiltrated by the proposed changes that mediate discursive ruling relations. Unit policies and the partogram flowsheet are amended. New columns are introduced and embedded in the revised partogram flowsheet that is passed on to the provincial perinatal educator for training and implementation by nurses on the labour and delivery unit. The partogram flowsheet is then activated by low-level staff (Smith, 1990b) as they care for labouring women and the cycle repeats with construction of the institutional textual account of women's labour and birth experiences.

Similarly, each time new SOGC clinical practice guidelines or HIROC *Risk Reference Sheets* are updated and released, revised texts are distributed to regional health authorities and to labour and delivery units. The provincial perinatal educator, along with input from the Medical Chief of Obstetrics and the unit nurse manager, activate these revised boss texts by adjusting unit policies and the partogram flowsheet to reflect current recommendations.

Summary

I have reported the extra-local or bigger picture findings in this chapter and by way of illustration demonstrated how nurses' work in labour and delivery is socially organized. As illustrated in the intertextual hierarchy, discursive ruling relations (i.e., biomedical and medical-legal discourses) infiltrate boss texts (i.e., SOGC clinical practice guidelines) that inform lower-level organizational documents (e.g., unit policies and the partogram flowsheet), which together, produce an institutional textual account of women's childbirth experiences. This institutional textual account is vital because it is

apparent that this institutionally sanctioned account aligns with an agenda reflective of the biomedical discourse priority of safe care. Nursing documentation must align with institutional imperatives and make known the biomedical assessments and interventions implemented during childbirth. In addition, medical-legal discourse also governs the institutional requirements for safeguarding the fetus to mitigate risk and ensure safe care which is achieved through biomedical interventions.

I revealed by way of the ideological circle how biomedical and medical-legal discourses are reinforced when new SOGC clinical practice guidelines and HIROC's safety recommendations are released, for example, following a patient safety incident. When the incident is formally filed, nursing administration and the Quality Patient Safety and Risk Management Department conduct an internal review and recommend revisions to lower-level texts to reflect the current national guidelines. During intrapartum care of women nurses engage the newly revised lower-level texts and the cycle is replicated and the social organization of nurses' work as portrayed, above, is repeated. I conclude that biomedical and medical-legal discourses are overshadowing the nursing discourse of holistic care and that nurses' work is socially constituted to reinforce these discursive ruling relations through the texts they routinely use in their labour and delivery work in this tertiary care center.

References

Accreditation Canada, Healthcare Insurance Reciprocal of Canada (HIROC), Canadian Medical Protective Association (CMPA), and Salus Global Corporation (2016). *Obstetrics Services in Canada: Advancing Quality and Strengthening Safety* https://www.cmpa-acpm.ca/static-assets/pdf/research-and-policy/system-and-practice-improvement/Obstetrics_Joint_Report-e.pdf

American College of Obstetricians and Gynaecologists (ACOG) (2018). Committee on practice bulletins-obstetrics. ACOG practice bulletin No. 198: Prevention and management of obstetric lacerations at vaginal delivery. *Obstetrics and Gynecology 132,* (3), e87-e102. https://doi.org/10.1097/AOG.0000000000002841

Benner, P. (2000). The roles of embodiment, emotion and lifeworld for rationality and agency in nursing practice. *Nursing Philosophy*, *1*(1), 5–19. https://doi.org/10.1046/j.1466-769x.2000.00014.x

Bisaillon, L. (2012). An analytic glossary to social inquiry using institutional and political activist ethnography. *International Journal of Qualitative Methods*, *11*(5), 607–627. https://journals.sagepub.com/doi/10.1177/160940691201100506

Bisits, A. (2016). Risk in obstetrics – Perspectives and reflections. *Midwifery*, *38*, 12–13. https://doi.org/10.1016/j.midw.2016.05.010

Blake, J. & Green, C.R. (2019). SOGC clinical practice guidelines: A brief history. *Journal of Obstetrics and Gynaecology Canada*,*41*(S2):S194−S196 https://doi.org/10.1016/j.jogc.2019.08.029

Bohren, M. A., Hofmeyr, G. J., Sakala, C., Fukuzawa, R. K., & Cuthbert, A. (2017). A. Continuous support for women during childbirth. *Cochrane Database of Systematic Reviews, (7),* Article CD003766. https://www.cochrane.org/CD003766/PREG_continuous-support-women-during-childbirth

Campbell, M (1998). Institutional ethnography and experience as data. *Qualitative Sociology 21*(1), 55-73. https://doi.org/10.1023/A:1022171325924

Canadian Association of Perinatal and Women's Health (CAPWHN) (2018). *Perinatal nursing standards in Canada*. https://capwhn.ca/wp-content/uploads/2019/10/PERINATAL_NURSING_STANDARDS_IN_CANADA.pdf

Canadian Association of Schools of Nursing (CASN) (2017). *Entry-to-practice competencies for nursing care of the childbearing family for baccalaureate programs in nursing.* https://www.casn.ca/2018/01/entry-practice-competencies-nursing-care-childbearing-family-baccalaureate-programs-nursing/

Canadian Institute for Health Information (CIHI) (2020). Top 5 reasons for hospital stays in Canada. https://www.cihi.ca/en/hospital-stays-in-canada

Canadian Medical Protective Association (CMPA) (2018). HIROC, SOGC, and CMPA join forces as partners in Salus Global. https://www.cmpa-acpm.ca/static-assets/pdf/connect/18_salus_global_backgrounder-e.pdf

Canadian Nurses Association (CNA) (2021). Certification nursing practice specialties. https://www.cna-aiic.ca/en/certification/get-certified/certification-nursing-practice-specialties

Canadian Nurses Association (2017). *Code of ethics for registered nurses.* https://www.cna-aiic.ca/~/media/cna/page-content/pdf-en/code-of-ethics-2017-edition-secure-interactive

Canadian Nurses Protective Society (CNPS) (1999). Legal risks in nursing. *InfoLAW, 8*(1). https://cnps.ca/article/legal-risks-in-nursing/

Canadian Nurses Protective Society (CNPS) (2002). Obstetrical nursing. *InfoLAW,11* (1). https://cnps.ca/article/obstetrical-nursing/

Canadian Nurses Protective Society (CNPS) (2004). Negligence. *InfoLAW,3* (1). https://cnps.ca/article/negligence/

Canadian Nurses Protective Society (CNPS) (2007). Malpractice lawsuits. *InfoLAW, 7* (2). https://cnps.ca/article/malpractice-lawsuits/

Canadian Nurses Protective Society (CNPS) (2020). Quality documentation: Your best defense. *InfoLaw,1* (1). https://cnps.ca/article/infolaw-qualitydocumentation/

Canadian Patient Safety Institute (CPSI) (2011). *Disclosure Working Group*: *Canadian disclosure guidelines: Being open and honest with patients and families.* https://www.patientsafetyinstitute.ca/en/toolsResources/disclosure/Documents/CPSI%20Canadian%20Disclosure%20Guidelines.pdf

Canadian Patient Safety Institute (CPSI) (2021a). Patient safety right now. https://www.patientsafetyinstitute.ca/en/About/Patient-Safety-Right-Now/Pages/default.aspx

Canadian Patient Safety Institute (CPSI) (2021b). *Hospital Harm Improvement Resource*. https://www.patientsafetyinstitute.ca/en/toolsResources/Hospital-Harm-Measure/Improvement-Resources/Pages/default.aspx

Canadian Patient Safety Institute (CPSI) (2021c). *Reporting and learning systems*. https://www.patientsafetyinstitute.ca/en/toolsResources/PatientSafetyIncidentManagementToolkit/PatientSafetyManagement/Pages/Reporting-and-Learning-Systems.aspx

Canadian Perinatal Program Coalition (2009). *Fundamentals of fetal health surveillance.* https://www.cpd.med.ubc.ca/learn/learning-activities/course?eventtemplate=22

Chadwick, R. J. & Foster, D. (2014) Negotiating risky bodies: childbirth and constructions of risk. *Health, Risk & Society,16*(1), 68–83. https://doi.org/10.1080/13698575.2013.863852

Cole, N. L. (2020, August 28). *Introduction to discourse in sociology*. Retrieved from https://www.thoughtco.com/discourse-definition-3026070

College of Registered Nurses of Newfoundland and Labrador (CRNNL) (2019). *Entry-level competencies (ELCs) for the practice of registered nurses* https://www.crnnl.ca/sites/default/files/documents/Entry_Level_Competencies_for_the_Practice_of_Registered_%20Nurses_0.pdf

College of Registered Nurses of Newfoundland and Labrador (CRNNL) (2019). *The standards of practice for registered nurses and nurse practitioners.* https://www.crnnl.ca/sites/default/files/documents/Standards_of_Practice_for_RNs_and_NPs.pdf

Curtis, K., Tzannes, A., & Rudge, T. (2011). How to talk to doctors - a guide for effective communication. *International Nursing Review, 58*(1), 13–20. https://doi.org/10.1111/j.1466-7657.2010.00847.x

Davis-Floyd, R. (2001). The technocratic, humanistic, and holistic paradigms of childbirth. *International Journal of Gynecology and Obstetrics, 75*(S1), S5–S23. https://doi.org/10.1016/S0020-7292(01)00510-0

DeVault, M. and McCoy, L. (2002.) Institutional ethnography: Using interviews to investigate ruling relations. In: Gubrium, J. and Holstein, J., (Eds.), *Handbook of Interview Research: Context & Method* (pp. 751-776). Sage Publishing.

Devault, M. & McCoy, L. (2006). Institutional ethnography: Using interviews to investigate ruling relations. In D. E. Smith (Eds.), *Institutional ethnography as practice* (pp. 15-44). Rowman & Littlefield.

Deveau, J.L. (2016) Using institutional ethnography's ideological circle to portray how textually mediated disability discourse paralysed a Supreme Court of Canada ruling. *Culture and Organization, 22* (4), 311-329, http://dx.doi:10.1080/14759551.2014.940042

Doll, A., & Walby, K. (2019). Institutional ethnography as a method of inquiry for criminal justice and socio-legal studies. *International Journal for Crime, Justice and Social Democracy*, *8*(1), 147–160. https://doi.org/10.5204/ijcjsd.v8i1.1051

Dore, S., & Ehman, W. (2020). No. 396-Fetal Health Surveillance: Intrapartum Consensus Guideline. *Journal of Obstetrics and Gynaecology Canada : JOGC 42*(3), 316–348.e9. https://www.jogc.com/article/S1701-2163(19)30554-7/fulltext

Edozien, L. C. (2015). Current commentary: Situational awareness and its application in the delivery suite. *Obstetrics and Gynecology*, *125*(1), 65–69. https://doi.org/10.1097/AOG.0000000000000597

Frampton, C., Kinsman, G., & Thompson, A.K. (2006). Glossary of terms. In Frampton, C., Kinsman, G., & Thompson, A.K. (Eds). *Sociology for changing the world: Social movements/social research* (p.38). Fernwood Publishing.

Fraser Health (2014). Introducing "Baby Pause" – safer care for new moms and babies. BCPSLS Central. http://bcpslscentral.ca/introducing-baby-pause-safer-care-for-new-moms-and-babies/

Goldberg, L. (2002). Rethinking the birthing body: Cartesian dualism and perinatal nursing. *Journal of Advanced Nursing 37*(5), 446-451. https://doi.org/10.1046/j.1365-2648.2002.02111.x

Government of Newfoundland and Labrador (2008). *Registered Nurse's Act*, SNL 2008, c. R- 9.1. https://www.assembly.nl.ca/legislation/sr/statutes/r09-1.htm

Hartrick Doane, G., & Varcoe, C. (2021). *How to nurse: Relational inquiry in action* (2nd ed.) [electronic version]. Wolters Kluwer. https://thepoint.lww.com/book/show/944102#

Healthcare Insurance Reciprocal of Canada (HIROC) (2015). *Claims reporting process*. https://www.hiroc.com/sites/default/files/2019-01/Claims-Reporting-Process-Feb2015.pdf

HealthLinkBC (n.d.) Triple or quad screening for birth defects. https://www.healthlinkbc.ca/health-topics/ta7038

Health Standards Organization (HSO) & Canadian Patient Safety Institute (CPSI) (2020). *The Canadian quality and patient safety framework for health services.* https://www.patientsafetyinstitute.ca/en/toolsResources/Canadian-Quality-and-Patient-Safety-Framework-for-Health-and-Social-Services/Documents/CPSI-10001-CQPS-Framework-English_FA_Online.pdf#search=safety%20huddles

Kaplan, H. C., & Ballard, J. (2012). Changing practice to improve patient safety and quality of care in perinatal medicine. *American Journal of Perinatology*, *29*(1), 35–41. https://doi.org/10.1055/s-0031-1285826

Kozier, B., Erb, G., Berman, A., Snyder, S., Frandsen, G., Buck, M., Ferguson, L., Yiu, L., Leeseberg Stamler, L. (2018). *Fundamentals of Canadian nursing: Concepts, process, and practice.* (4th ed., pp.85-105). Pearson.

Liston, R., Sawchuck, D., & Young, R. (2018). Reaffirmed SOGC Clinical practice guideline No. 197b: Fetal health surveillance: Intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada*, *40*(4), e298-e322. https://doi.org/10.1016/j.jogc.2018.02.011

Liston, R., Sawchuck, D., & Young, R. (2007). SOGC Clinical practice guideline No. 197: Fetal health surveillance: Antepartum and intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada*, *29*(9), S3–S56.

Lyndon, A., Zlatnik, M. G., & Wachter, R. M. (2011). Effective physician-nurse communication: a patient safety essential for labor and delivery. *American Journal of Obstetrics and Gynecology*, *205*(2), 91–96. https://doi.org/10.1016/j.ajog.2011.04.021

Miller, J. (2017). What kind of injuries can lead to a claim? In The Birth Injury Lawyers Alliance, *Birth injury lawsuits: A parent's guide*. Word Association Publishers. https://www.bila.ca/free-ebook-birth-injury-lawsuits/

MORE^{OB} (2019). MORE^{OB} program features. https://www.moreob.com/features-approach

Murray-Davis, B., McDonald, H., Cross-Sudworth, F., Ahmed, R., Simioni, J., Dore, S., Marrin, M., DeSantis, J., Leyland, N., Gardosi, J., Hutton, E., & McDonald, S. (2015). Learning from adverse events in obstetrics: Is a standardized computer tool an effective strategy for root cause analysis? *Journal of Obstetrics and Gynaecology Canada*, *37*(8), 728–735.

Mykhalovskiy, E. (2002). Understanding the social character of treatment decision making. In M. Bresalier, L. Gillis, C. McClure, L. McCoy, .E. Mykhalovskiy, D. Taylor, & M. Webber (Working Group), *Making care visible: Antiretroviral therapy and the health work of people living with HIV/AIDS* (pp. 37-63). https://chodarr.org/sites/default/files/chodarr1501.pdf

Nettleton, S. (2020). *The sociology of health and illness* (4th ed.). Polity Press.

Pettker, C. M. (2011). Standardization of intrapartum management and impact on adverse outcomes. *Clinical Obstetrics and Gynecology*, *54*(1), 8–15. https://doi.org/10.1097/GRF.0b013e31820a033d

Public Health Agency of Canada (PHAC) (2020). Chapter 3: Care during pregnancy. https://www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/maternity-newborn-care-guidelines-chapter-3/maternity-newborn-care-guidelines-chapter-3-en.pdf

Rankin, J., & Campbell, M. (2009). Institutional ethnography (IE), Nursing work and hospital reform: IE's cautionary analysis. *Forum: Qualitative Social Research, 10*(2), Article 8. https://doi.org/10.17169/fqs-10.2.1258

Rankin, J. (2017). Conducting analysis in institutional ethnography: Guidance and cautions. *International Journal of Qualitative Method,16*, 1-11. https://doi.org/10.1177/1609406917734472

Reszel, J., Weiss, D., Sprague, A. E., Fell, D. B., Dunn, S., Walker, M. C., Sidney, D., Taljaard, M., & Peterson, W. E. (2019). A mixed-methods evaluation of the MORE^{OB} program in Ontario hospitals: Participant knowledge, organizational culture, and experiences. *BMC Health Services Research, 19*(1), 460. https://doi.org/10.1186/s12913-019-4224-9

Romano, A. M., & Lothian, J. A. (2008). Promoting, protecting, and supporting normal birth: A look at the evidence. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 37*(1), 94–105. https://doi.org/10.1111/j.1552-6909.2007.00210.x

Royal College of Physicians and Surgeons (2019). *Obstetrics and gynecology competencies.* Version 1.0. https://www.royalcollege.ca/rcsite/home-e

Rokosh, C. (Host) (2020, February 12). Richard Halpern of Gluckstein Lawyers discusses Medical Malpractice Law (Episodes 1 - 3) [Audio podcast episodes] In *Inside medical malpractice*. Apple Podcasts. https://podcasts.apple.com/ca/podcast/inside-medical-malpractice/id1499718332

Shaprio, C. (2019). Legal implications in nursing practice. In P. Potter, P. Stockert, A. G. Perry, & A. Hall., B.J. Astle, W. Duggleby. *Canadian fundamentals of nursing* (6th ed., pp 101-111). Elsevier.

Statista (2020). Number of births in Canada from 2001-2020. https://www.statista.com/statistics/443051/number-of-births-in-canada/

Smith, D. E. (1987). *The everyday world as problematic*. Northeastern University Press.

Smith, D. E. (1990a). *Texts, facts, and femininity: Exploring the relations of ruling.* Routledge.

Smith, D. E. (1990b). *The conceptual practices of power: A feminist sociology of knowledge*. Northeastern University Press.

Smith, D. E. (1999). *Writing the social: Critique, theory, and investigations*. University of Toronto Press.

Smith, D.E. (2005). *Institutional ethnography: A sociology for people*. Alta Mira Press.

Smith, D. E. (2006). Incorporating texts into ethnographic practice. In D. E. Smith (Ed.). *Institutional ethnography as practice.* (pp.65–88). Rowman & Littlefield Publishers, Inc.

Smith, D. & Turner, S. (2014). Introduction. In D. E, Smith & S. Turner (Eds.), *Incorporating texts into institutional ethnographies* (pp. 3–13). University of Toronto Press.

Valles, S. (Summer 2020 Edition). Philosophy of biomedicine. *The Stanford Encyclopedia of Philosophy*. Edward N. Zalta (Ed.). https://plato.stanford.edu/archives/sum2020/entries/biomedicine/

Van Wagner, V. (2016). Risk talk: Using evidence without increasing fear. *Midwifery*, *38*, 21–28. https://doi.org/10.1016/j.midw.2016.04.009

Wang, Y. Y., Wan, Q. Q., Lin, F., Zhou, W. J., & Shang, S. M. (2018). Interventions to improve communication between nurses and physicians in the intensive care unit: An integrative literature review. *International Journal of Nursing* Sciences, *5*, 81–88. https://doi.org/10.1016/j.ijnss.2017.09.007

Yan, M. C. (2003) Antiracism discourse: The ideological circle in a child world. *The Journal of Sociology & Social Welfare*, *30*(1) , Article 8. https://scholarworks.wmich.edu/jssw/vol30/iss1/8

Zwelling, E. (2008). The emergence of high-tech birthing. *Journal of Obstetric, Gynaecologic, and Neonatal Nursing, 37*(85–93). https://doi.org/10.1111/j.1552-6909.2007.00211.x

Chapter Five

Conclusions

The recommended approach to fetal health surveillance in low-risk labour is intermittent auscultation (IA) (Association of Women's Health, Obstetric and Neonatal Nurses, 2018; Devane et al., 2017; Dore & Ehman, 2020; Society of Obstetricians and Gynaecologists Canada [SOGC], 2020). However, from my professional experiences as a nurse and observations as an educator, nurses rarely use IA to assess and monitor fetal well-being and thus are not following the SOGC clinical practice guidelines (Dore & Ehman, 2020; Liston et al., 2007; Liston et al., 2018) or the unit policy specific to the use of IA. Instead, nurses employ the continuous electronic fetal monitor (CEFM) despite the fact that CEFM is recommended for women who are at *high-risk* for poor perinatal outcomes (Dore & Ehman, 2020; Public Health Agency of Canada [PHAC], 2009; Snelgrove-Clarke et al., 2015; Ward et al., 2016). Use of the CEFM may lead to instrumental or caesarean delivery if applied during low-risk labour (Devane et al., 2017).

To understand the above practice contradiction, I conducted an institutional ethnographic (IE) study to both explore how nurses "do" fetal health surveillance and draw insights about the "ruling relations" governing nurses' work in labour and delivery. Through interviewing nurses, hospital management and administrative personnel; and, by conducting participant observations and analyzing texts (e.g., clinical practice guidelines, unit policies, patient chart forms), I was able to trace and expose discursive ruling relations. Biomedical and medical-legal discourses were uncovered in several texts that were routinely referred to by nurse informants. Of particular note was the partogram

flowsheet. As nurses diligently completed imputing all the required data in the partogram flowsheet, I observed that the care of labouring woman was undermined because fetal well-being assessment took precedence. Consuming nurses' time and attention on the unit were the careful monitoring of the fetal heart rate and the meticulous interpretation and classification of CEFM tracings. Disturbingly, holistic, patient-centered care was overlooked. Below, I present the overall impact of these discursive biomedical and medical-legal ruling relations on nurses' work and discuss the implications for nursing practice, education, and research.

The Impact of Discursive Ruling Relations

Nurses think of themselves as members of a caring profession and pride themselves on providing care that is holistic, compassionate, and sensitive to individual patient needs. This is what is believed to distinguish members of the nursing profession from other health care providers (Thorne, 2019; Thorne & Stajduhar, 2017). The Canadian Nurses Association (2015) *Framework for the Practice of Registered Nurses in Canada* stipulates that holistic care means focusing on the whole person comprised of biophysical, *and* psychosocial, emotional, social, cultural, and spiritual dimensions. Holistic nursing care facilitates implementation of a patient-centered approach as endorsed by Canadian and provincial nursing standards for practice, for example, the:

- Canadian Association of Perinatal and Women's Health Nurses' (CAPWHN) (2018) *Perinatal Nursing Standards in Canada*

- Canadian Association for Schools of Nursing (CASN) (2017) *Entry-to-Practice Competencies for Nursing Care of the Childbearing Family for Baccalaureate Programs in Nursing*, and
- College for Registered Nurses of Newfoundland and Labrador (CRNNL) (2019) *Standards of Practice for Registered Nurses and Nurse Practitioners*.

However, due to biomedical and medical-legal discourses infiltrating the forms and policies that labour and delivery nurses use regularly in their everyday work, nurses are not so much focused on meeting holistic care needs because they must spend an inordinate amount of time and effort on technological interventions (e.g., the CEFM).

Based on my critical analysis I infer that nurses are not meeting the holistic care needs of labouring women because childbirth has become a risk adverse event within the hospital institution. Health care providers are under constant pressure that a patient safety incident may occur that will result in legal action which could affect the institution's reputation with important organizations (e.g., HIROC, professional regulator bodies) and within the community. Lawsuits also have financial implications for the facility and the regional health authority. Ensuring the safe birth of the baby through advances in technological surveillance and medical interventions take priority. Nurses are mandated to complete patient chart forms (e.g., the partogram flowsheet) to record fetal well-being assessments during labour and are required to focus primarily on biophysical dimensions. For example, the partogram flowsheet has pre-established elements (i.e., fetal heart rate assessment, uterine contractions, cervix dilation, and medical interventions) that take priority over supportive measures (e.g., one-to-one labour support and family centered

care) that would be more in keeping with psychosocial and emotional dimensions and nursing holistic care practice standards. I heard and witnessed how nurses distanced themselves (both physically and emotionally) from labouring women because they were so focused on interpreting CEFM graphic printouts, as depicted in the following comment: "Now the patient needs me, and I have to say, I'm sorry you're just going to have to wait a minute, I have to look at this 30-minute graph so I can qualify it" (Nurse Informant). Similarly, other studies found nurses were drawn away from providing labour support and were preoccupied with managing technology (Dobson, 2018) and documentation (Aschenbrenner et al., 2016). Although dated, previous studies reported the time spent on hands-on labour support ranges between 6.1% and 31.5% of total nursing activities (Gagnon & Waghorn, 1996; Gale et al., 2001; Hodnett et al., 2013; McNiven et al.,1992; Miltner, 2000; Zwelling, 2008). Moreover, I observed nurses managing the CEFM from afar, completely removed from the birthing room and therefore unable to assess the care needs of labouring women or provide any interventions to meet care needs. Almerud et al. (2008) described similar observations in their investigation of nurses' work in high acute areas. Advances in technologies in the medical sector, even more than a decade ago (in this instance, in an intensive care unit), had prevented nurses from seeing patients as holistic human beings and impacted the quality of interpersonal relationships with patients. Nurses were observed performing their work in a robotic and detached, technical, skill-driven manner. The same is evident in more recent research studies (Campbell and Rankin, 2017; Dean et al, 2015).

While for some, providing supportive measures during labour may sound "soft" and tend to be trivialized in a tertiary care setting of specialized care with focus on biomedical interventions, nurse scholars like Benner (2004) claim such nursing comfort measures are life-giving and valuable in their own right. Providing soothing touch, altering positions, and decreasing stimulation have all been shown to assist with the discomforts of labour (Keenan-Lindsay, 2017; Morin & Rivard, 2017). If nurses are task oriented (e.g., focused on the partogram and the acquisition of biophysical data) they may not notice women's emotional needs which may hinder levels of disclosure, trust, and engagement (Benner, 2004). As shared and discussed in Chapter 3, Barb's concentrated efforts on interpreting and recording CEFM tracings during her care of Susan, obscured Susan's unique labouring needs. What Benner (2004) calls a "disclosive" (p. 349) space where trust and reassurance are fostered, was absent during observations of Susan's care. Experiences women have during childbirth carry physical, psychological, and emotional implications. If Barb had established a therapeutic relationship with Susan, Barb would have not only known Susan's unique labour and birthing concerns but had been able to assist Susan to cope with the stressors of childbirth (Nilsson et al., 2013). Moreover, had Susan experienced birth trauma (any event involving actual or threatened serious injury to mother or baby), or another patient safety incident, Susan would have been able to rely on Barb because there was a pre-established disclosive space and potentially Susan would not have been left alone to endure intense fear, helplessness, and feelings of loss of control resulting from these events (Beck, 2004a; Simkin, 2020). According to Beck (2004a; 2004b; 2006) even being left to labour alone because nurses make no effort to

establish therapeutic rapport is traumatic for some women. Furthermore, a traumatic birth experience has been shown to negatively impact women as they assume the mothering role and attempt to bond with their babies (Fenwick et al., 2015; Simkin, 1992; Toohill et al., 2014).

While documentation of nursing care constitutes a significant practice standard (College of Registered Nurses of Newfoundland and Labrador [CRNNL], 2010; Canadian Nurses Protective Society [CNPS], 2020), I assert that the nurses whom I interviewed recognized the importance of documentation not insomuch as fulfilling standards but to "cover" themselves. An adverse event may arise, or nurses may be asked to testify in a case undergoing formal review. Nurses' vigilance is justified, though, as the patient chart is a legal record that should accurately reflect the assessments, interventions, patient responses, information shared, and patient care decisions (Barry & Kerr, 2019). However, nurse informants described how they witnessed colleagues being disciplined as a result of a patient safety incident on the unit several years ago. During legal proceedings the patient's chart and documentation were presented as evidence to determine whether the nurses in question met the standards of what a prudent nurse would do in the provision of reasonable care. It was determined that some nurses had not provided care reflective of a prudent nurse in accordance with unit policies, guidelines, and the CRNNL (2019) *Standards of Practice for Nurses and Nurse Practitioners*. The event and disciplinary action that followed continue to instill considerable fear and apprehension in the unit's nursing staff.

Is it possible that nurses work under a cloud of fear and anxiety and are *afraid* to activate the IA policy when caring for women in labour, even if women are assigned a low-risk status? When the night nurse (mentioned in the ethnographic account in Chapter 3) indicated that she "thought she had heard a deceleration" after applying IA to assess the fetal heartbeat, she chose to 'err on the side of caution' and immediately switched to the use of the CEFM. Are nurses so fearful of missing something or making a mistake that they *invent* situations to "allow" them to apply CEFM? The night nurse had *thought* she heard a deceleration which justified activation of the EFM policy. The night nurse no longer trusted her sense of hearing, clinical knowledge, or judgment because it was safer to "cover your bum" despite the known risks of CEFM for women in low-risk labour. As some scholars suggest, nurses *believe* IA unlike the EFM policy, would not stand up in a legal defense as there is no hard documentary or graphic evidence of what was heard by the nurse. Consequently, they think the decision to activate the EFM policy provides security believing that the paper tracing generated by the CEFM is hard evidence of prudent care provided (Borg, 2003).

Nurse informants indicated that the SOGC clinical practice guidelines and unit policies are their main references and sources of knowledge to inform how they carry out fetal health surveillance. I believe that institutional interests are infiltrating nurses' work, and as a result, nurses are participating unintentionally in the institutionally mandated biomedical approach to care of labouring women which functions to subjugate nurses' professional standpoint (Campbell, 2001). Growe (1991) argued, decades ago that, "What nurses are allowed to do is set out in terms of an accepted body of knowledge only as it is

defined by male scientists" (p. 103). Risjord (2010) later added, "The role of the nurse in health care is oppressed and marginalized as compared to the role of the physician" (p. 71). Other IE studies have shared similar findings to those in my study in which organizational texts like the partogram flowsheet are shaping nursing practice at the bedside and subordinating specialized knowledge contributing to the invisibility of the unique contributions of nurses to patient outcomes (Campbell, 2001; Campbell & Rankin, 2017; Rankin & Campbell, 2009; Rankin, 2014;).

Implications for Nursing Practice, Education, and Research

I concur with Campbell (2001) that nurses' work has become a biomedically oriented, textually-mediated practice with emphasis on fulfilling the medical-legal *risk* agenda of the institution which are not consistent with evidence-informed nursing practice. Below, I discuss recommendations for nursing practice, education, and future research that are based on findings from my IE exploration of nurses' work in labour and delivery.

Nursing Practice

Tertiary care centers are equipped to treat women at high risk for adverse perinatal outcomes by providing specialized technology and advanced levels of care. Nurses are exposed to the use of routine birth interventions which can impact their beliefs (Liva et al., 2012) and may result in distorted views of childbirth. Nurses working on such units may come to not trust in a woman's physiological ability to give birth without minimal medical intervention. I observed labouring women undergoing numerous assessments including the use of CEFM, intravenous oxytocin to augment or induce

labour, and epidural anesthesia for management of pain. Despite risks to their own health, not unlike other labouring women, these women accepted any intervention offered by the health care team believing that it is best for the safety of the *baby* (Rothman, 1989). Interestingly, nurses working in tertiary care centers tend to not value the importance of natural vaginal birth. They would recommend epidural anesthesia and CEFM, and they are also more likely to choose an obstetrician for their own pregnancy and delivery (Liva et al., 2012). Nurses are not the only health care providers affected in this way. A study exploring family physicians' attitudes toward birth found physicians who did not have experience of birth tended to hold views that are more interventionist and to be more concerned about potential risks of vaginal birth (Klein et al, 2011). However, women are not aware that biomedical interventions may fail to make childbirth safer for either mother or baby, but may disrupt natural labour and birthing processes, resulting in untoward complications (Lothian, 2014).

Levine and Lowe (2014) argue the highly structured and regulated Western health care system is steeped in the biomedical model that tends to reward upholding policies and procedures through expert technical proficiency rather than supportive care. They claim that this has a deep effect on nurses' perceived ability to practice using their own professional knowledge and expertise and to implement labour support techniques that may prevent unnecessary medical interventions and cesarean deliveries. Interestingly, Benner (2004) recognized that the nursing practices of comforting touch, being present, and offering solace were largely invisible because they are rarely documented or part of a nursing care plan. Conversely, medical interventions such as intravenous medications

(e.g., oxytocin) and epidurals are highly visible because they are prescribed and space is made available for prescribed interventions on the patient chart.

The above discussion warrants strategies that assist with approaches to promote change. Knowledge translation (KT) involves translating research into practice through dissemination and implementation (Armstrong et al., 2013). KT strategies based on findings from this study are important to identify. Strategies could include new communication tools, a re-evaluation of what constitutes best evidence, discussion groups, fostering cultural change, and facilitating collaborative decision-making.

New Communication Tools

It is critical that nurses communicate in ways that highlight their unique knowledge, competence, the complexity of their work (Buresh & Gordon, 2006), and the impacts on birth outcomes. This is significant in light of current neo-liberalist approaches to health care funding and budgetary restraints. If nurses' work is portrayed as performing merely technical tasks, what would prevent governmental leaders from reducing the number of registered nurses within acute care settings with licensed practical nurses or health care aids? A recent external review of Alberta Health Services recommended replacing registered nurses with licensed practical nurses and estimated a cost savings of over 300 million dollars (Rieger, 2020).

Documentation in patient charts (i.e., completing the partogram flowsheet) and reporting tools (e.g., SBAR) reinforce the invisibility of labouring women as well as the invisibility of nurses' unique knowledge and skill set. As explained in Chapter 4, SBAR stands for situation, background, assessment, and recommendation, and, is intended as an

efficient tool to assist nurses with organizing their thoughts prior to contacting physicians. Interprofessional communication experts endorse SBAR for efficiency and clarity to ensure patient safety. The focus of SBAR, however, is restricted mainly to the biophysical dimension of patient care and if used routinely, omitted from this oral communication method is the holistic picture of patients including the psychosocial, emotional, social, cultural, and spiritual dimensions (Johnson et al., 2012). For example, significant details of women's intrapartum experiences are lost or not communicated if SBAR communication becomes the standardized norm on the unit.

The threat to nursing practice is mistaking the SBAR tool for everyday use resulting in the *routinized*, exclusive focus on the biophysical dimension and not on whole person care. By expanding SBAR so that the situation or background include a designated space for nurses to include supportive measures, and other progress notes of pertinence, will create a more holistic picture of labouring women and fetal status. Changes to allow better communication of the nursing practice measures supporting labouring women will result in awareness of the nurse's role and respect for nursing contributions among physicians and other members of the health care team. Ultimately, altering communication tools like the SBAR will enhance appreciation and the valuing of nurses' work, work that from my critical analysis in Chapter 3, is currently invisible.

Re-Evaluation of What Constitutes Evidence

As presented in Chapter 3, I assert that the biomedical model influences how health care providers approach childbirth and manage intrapartum care. Medical technological interventions are deemed necessary to mitigate risk and ensure safety

during childbirth. Labouring women are constantly monitored in anticipation for potential development of conditions which may harm the mother, fetus, or both, during the intrapartum period. Nurses are continually documenting biophysical data and biomedical interventions which serve to create an institutional account of labour and the birthing process—endorsed as a biomedical event. When there is a patient safety incident, it is this institutional account, as structured by the boss text (SOGC clinical practice guideline), organizational texts (unit policies, MORE^{OB} education), and the CRNNL *Standards for Practice for Registered Nurses and Nurse Practitioners* (2019), which, together, are the evidentiary information sought by reviewers to determine whether safe practices and standards of care by health care providers including labour and delivery nurses, were provided. It became apparent to me that any institutional reviews of patient safety incidents rely on biophysical monitoring data as evidence of prudent care leading one to wonder if reviewers are failing to acknowledge and consider the CAPWHN (2018) *Perinatal Nursing Standards in Canada* that reflect the discourse, principles and values of holistic and supportive practice measures as prudent care of labouring women. By focusing on biomedical indicators of prudent care, are labour and delivery nurses perpetuating the generic evidence-based paradigm (i.e., evidence-based practice) that stems from the evidence-based medicine movement? Recall that Archie Cochrane's (1972) *Effectiveness and Efficiency: Random Reflections on Health Services* and the Cochrane Library, the Cochrane Collaboration and the Cochrane Criteria, in conjunction with McMaster University's Evidence-Based Medicine Working Group, are responsible for creating a research evidence hierarchy and are the catalysts for the evidence-based

medicine (EBM) movement (Sackett et al., 2000). Clinical knowledge and the evidence base for clinical practice has since shifted (Holmes et al., 2006). “Proponents of EBM purport traditional decision making based on intuition, clinical experience and pathophysiologic reasoning alone is substandard; whereas, judgments founded upon scientific research evidence generated from rigorous methods, namely RCTs, are superior to medicine-as-usual” (Porr & Mahtani-Chugani, 2008, n.p.). I contend that health care providers have since relied on a narrow knowledge base excluding unique patient contexts and experiences (Porter & O’Halleran, 2009), especially in the care of labouring women, and nurses are not able to apply the broader definition of evidence in nursing practice that is depicted in the CRNNL *Standards for Practice*.

The CRNNL *Standards for Practice for Registered Nurses and Nurse Practitioners* (2019), specifically the Knowledge Based Practice standard, describes evidence-informed practice as “strategies that improve client outcomes and are derived from a combination of various sources of evidence, including client perspective, research, national guidelines, policies, consensus statements, expert opinion, and quality improvement data” (p. 17). I recommend that this broader knowledge and evidence base be explicitly applied so as not to perpetuate the biomedical discourse of patient medical treatment but to promote the holistic care nursing practice discourse. In collaboration with the CRNNL, the broader definition could be better highlighted and incorporated into organizational texts governing nurses’ work in labour and delivery. Together with CRNNL nursing leaders, questions could be posed to administrators, such as: How can nursing research, patient experiences, and nurses’ clinical knowledge be clearly

incorporated into nursing practice in labour and delivery? How might regulators consider the broader sources of evidence when determining prudent care during a patient safety incident? What does CRNNL recommend to highlight and enable documentation of supportive measures in the legal record (i.e., the patient chart) to demonstrate that nurses in labour and delivery have carried out regulated practice standards and have, also, incorporated all dimensions of holistic, patient-centered care?

Discussion Groups

Frequent exposure to the dominant ruling discourses through engagement with organizational texts in their daily work may make it difficult or impossible for nurses to care for low-risk labouring women as advocated by the CAPWHN (2018) *Perinatal Nursing Standards in Canada*. The MORE^{OB} educational sessions as discussed in Chapter 4, are held regularly and all members of the health care team are required to attend. These sessions would be an opportune time for both nurses and the other members of the health care team to be made aware of several practice issues: 1. The overt and covert influences of biomedical and medical-legal discourses; 2. How and why nurses decide CEFM over IA; 3. The potential impact of CEFM and other technological interventions on labour progress and birth outcomes; 4. How the partogram flowsheet shifts focus of care to safeguarding the fetus; and 5. How holistic care practices are subjugated by the biomedical approach to managing intrapartum care. Each issue could be a discussion topic. Attendees would also include interdisciplinary team members, specifically, the nurse educator, the nurse manager, obstetricians, residents, and family medicine practitioners. Nurses could lead the discussion using the CAPWHN (2018)

Perinatal Standards to assist with strategizing how nurses in labour and delivery could better apply unique nursing knowledge and skills, in particular, supportive care measures, on a routine basis. These sessions would also facilitate incorporation of nursing knowledge into the MORE^{OB} program and enhance understanding of the nursing role and responsibilities among members of the health care team.

Fostering Cultural Change

Promoting cultural change within the unit to shift the approach to care from one reflective of a biomedical model to one that is more reflective of a holistic, person-centered approach may prove an effective strategy. However, cultural change is very difficult to achieve. The stance—"this is how we do things here"—depicts existing behavioral patterns or habits and are a central element of culture. Moreover, culture, alone, does not influence how people feel, think, or believe; there are other forces that shape behavior in organizations (Watkins, 2019). Other forces include personal values and belief systems, past experiences, role models, and leadership. Changing the culture of the labour and delivery unit necessitates change at multiple levels because cultural practices are really a systemic problem. Practice or behavior change can be complex and well-intentioned initiatives are often not sustainable because not all key stakeholders are identified in the change process (Michie et al., 2011; Rittenhouse, 2015). Not only do labour and delivery nurses need to be the focus of change, but obstetricians, middle managers, the organization, and women and their families, must also be included before change can occur. Systemic change requires alterations in individual behavior, in

interprofessional working relationships between health care providers, and changes to care policies and procedures (Grol et al., 2013).

One such approach or framework that may be viable is the Behavior Change Wheel developed by Michie et al., (2011). The authors recommend beginning with *a map* which describes what is actually happening in terms of individual behaviors and how individuals interact and connect with each other. This IE exploration has shown, empirically, the everyday nursing practice behaviors in the labour and delivery unit and how these behaviors are linked, connected, and what coordinates the work. The intertextual hierarchy presented in Chapter 4 illustrates the interconnection of texts that coordinate nurses' work at the unit level and thereby could serve as the map to assist key stakeholders to understand how things happen in labour and delivery. Together, stakeholders could identify, prioritize, and address the practice issues and enact change including greater emphasis on holistic person-centered care and on facilitating collaborative decision-making.

Facilitating Collaborative Decision-Making

Another strategy that may change approaches to childbirth that are different from a biomedical approach is the dissemination of study findings to women of childbearing age and by encouraging their involvement in lobbying for change. Findings related to the absence of active decision-making that was noted on the labour and delivery unit, for example, could enhance their awareness that any decision-making during labour and the birthing process should be done in consultation *with* them instead of *for* them. Women would learn that they should be fully informed of the rationales and implications of any

proposed use of technology prior to actual implementation, including the CEFM. Meeting women's care preferences is important. Women should understand it is their fundamental right to decline the use of technology if they choose to do so. Moreover, building partnerships and alliances with consumer groups, for example, the provincial Natural Parenting Network, would add leverage and support for upholding women's preferences during birth.

Women who want to be involved in their care and who wish to make informed decisions can sometimes come to their labour experience with a birth plan. A birth plan is a written document that was first introduced in the late 1970s as a result of women attempting to avoid the use of interventions (e.g., induction of labour, pain medication, epidurals, or episiotomies) during intrapartum care. The document enables women to communicate and clarify their wishes for childbirth (Lothian, 2006) and has served as an effective tool to promote collaborative decision-making (Pennell et al., 2011). However, some birth plans are at odds with the institution's approach to birth (e.g., wanting more than one support person in the birthing room) and are not often fulfilled due to restrictive institutional and, or, unit policies. Health care providers have had negative attitudes toward birth plans (Afshar et al., 2019; Lothian, 2006; Lyndon et al., 2017; White-Corey, 2013); did not take them seriously (Simkin, 2007); had considered them a "jinx" (Carlton, et al., 2009); and, had offered them up as the brunt of many jokes (Simkin, 2007). Nurses complained that women came with expectations that could not be met when labouring women refused birth interventions (Lothian, 2006).

As shared in Chapter 3, the regional health authority's *Client and Family Centered Care* (CHCC) philosophy which endorses dialogue between patients and health care providers, information sharing, and collaborative decision-making, was absent from the nursing care observed in the ethnographic account and there were many barriers to its implementation and uptake on the labour and delivery unit. Barriers included lack of support from management, staff shortages, and increased workload, which created frustration for nurses when trying to facilitate collaborative decision-making (Coyne et al., 2011). In some respects, however, most nurses do ask women for their birth plan when posing certain questions on admission to the labour and delivery unit. For example, women are asked about newborn feeding preferences or what their plan is for coping with labour contractions. Nurses could begin to incorporate many of these admission questions into a formalized birth plan as part of the labour and delivery unit admission documentation, and thereby, increase women's involvement in decision-making, support women's autonomy, and ultimately, potentiate positive labour and birth experiences (Anderson & Kilpatric, 2012).

Nursing Education

Accredited nursing education programs are required to include a focus on relational practice and patient-centered holistic approaches throughout the curriculum (Canadian Association of Schools of Nursing, 2015). Hartrick Doane and Varcoe (2021) remind nurses that valuing one form of knowledge, expertise or skill set over others within the health care system is problematic. These Canadian nurse scholars developed "relational inquiry" as a nursing approach with several principles that reflect the critical

significance of nursing knowledge, holism, person-centered care, and collaborative practice. Students identify and question how they relate to patients and how they critically apply knowledge to provide effective nursing care through the development of a nursing standpoint and the use of the "5 Cs." That is, nurses (students) are required *to be* compassionate, competent, committed, curious, and correspondent toward their patients and families to ensure holistic, ethical, and effective nursing practice is provided. Using the 5 Cs, relational inquiry enables nurse educators and clinical instructors to place emphasis on nursing knowledge, holistic care, and collaborative decision-making as key components of nursing practice and requisite expectations of students during classroom theory and clinical rotations.

In fact, nursing students are introduced to these and other principles, early on in their baccalaureate education. In Newfoundland and Labrador, first year students learn how to establish therapeutic relationships through verbal and nonverbal communication techniques (Porr, 2017). During clinical rotations, students apply relationship principles, techniques, skills, and concepts necessary to develop therapeutic rapport. Furthermore, nursing theory, the concept of caring, caring theory, strengths-based nursing (Gottlieb, 2013) in addition to relational inquiry (Hartrick Doane & Varcoe, 2021), comprise the curriculum in first year fundamentals courses and throughout the four-year program. Similarly, the maternal child course with the focus on childbearing women and families, infuses patient-centered care and collaborative decision-making as foundational concepts, principles, and skills.

However, biomedical and medical-legal discourses are very much evident in baccalaureate nursing education. Students are taught the legal implications of nursing practice and the importance of documentation being the registered nurse's "best defense" (CNPS, 2020). Nursing textbooks draw heavily on biomedical discourse to inform nursing practice. Courses from the natural sciences like pharmacology, pathophysiology, anatomy, and physiology, are heavily weighted with biomedical knowledge. Interestingly, Kleppe et al. (2016) conducted a critical analysis of nursing textbooks and found the instructions guiding the use of specific instruments or technology (e.g., Doppler apparatus) were highly task-oriented and detached from the patient's body and health care situation. Instructions were technical in nature, describing biophysical measurements (e.g., temperature, and respiratory rate) that is consistent with the biomedical model. Photographs illustrated technical tasks on various body parts (e.g., pair of hands, the feet) with no reference to the patient or to the nurse-patient therapeutic relationship. I argue that this impersonal approach depicted in course textbooks propagates the notion of the health care system as a sick patient system, placing greater emphasis on the nurse working with instruments instead of the whole person and thus far removed from holistic care practices. Students are learning that attending to patients' biomedical parameters and physical health conditions are the chief nursing responsibility, all of which mirror biomedical discourse.

Scholars in the nursing education literature (Limoges, 2010; MacMillan, 2016) have highlighted how students value tasks, technical biomedical knowledge, and skill development, as nurses' work. An informal "hidden curriculum" (MacMillan, 2016, p.

38) is believed to exist in nursing education and functions to socialize students. Macmillan argues this hidden curriculum includes subliminal messages that infiltrate both formal (classroom settings) and informal (health care environments) curricula through certain beliefs (e.g., nursing is a woman's profession), values, assumptions (e.g., technical skills are more important than relational skills), and language (e.g., physician's orders) which are never challenged, critiqued, or examined, but are accepted as truths. It is vital that nurse educators be aware of this hidden curriculum because they can inadvertently perpetuate biomedical discourse through their choice of curriculum content, clinical experiences, and role modelling. This raises questions about the focus of nursing curricula and how nurse educators are, perhaps, unconsciously perpetuating dominant biomedical and medical legal discourses.

Nurse educators may want to consciously make the effort to embrace alternate discourses when designing curricula delivery. Adopting the relational inquiry nursing approach (Hartrick Doane & Varcoe, 2015, 2021) is one way to foster both student and faculty awareness of how things work within complex, contemporary health care settings. It may promote student awareness and also better equip students with assertiveness to question, to critique, and to challenge dominant hegemonic discourses and the socio-political powers that are active within the health care system. Clinical rotations are ideal for assisting students to make sense of the schism between the ideals taught in the classroom and what they often witness in the clinical setting. For example, the concepts of patient-centered care and holistic nursing practice could be analyzed and discussed in ways that students begin to identify how their nursing care is made visible (or not) in the

expected documentation of care. Nurse educators are ideally positioned to equip students to critically reflect and to critique current practice by questioning: Is nursing knowledge and nurses' work reflected in the documentation? What knowledge is given priority? Whose interests does this knowledge advantage? Reflection and critique would cause students to contemplate and to think deeply about what is happening in the clinical setting in terms of nurses' work.

Nursing Research

Findings from my doctoral research study are corroborated by other IE investigations of nurses' work. Recently, Brydges et al., (2021) employed IE to address interprofessional tensions between midwives, nurses, and obstetricians in a hospital labour and delivery unit. The tensions stemmed from a policy that cited an "evidence-based" rule that 4-centimeter cervical dilation was indicative of active labour. This policy was the source of many disagreements between midwives, obstetricians, and nurses. While on paper the policy appeared to include an objective measure, in reality, uterine contractions and cervical dilation are judged subjectively. Cervical measurement had not been precise nor unequivocal among the team, and therefore created confusion and additional work, particularly, for the midwives and nurses. This closely resembles my observational data in Chapter 3, when the obstetrical team evaluated Susan's status of labour according to the SOGC guideline *Management of Spontaneous Labour at Term in Healthy Women* (Lee et al, 2016) (i.e., the 4-centimeter criterion) and not according to the actuality of Susan's labouring experience. Susan was not dilated 4 centimeters; she should have been permitted to continue to labour in the comfort of her home but because

her labour progress was assessed according to the criteria of the evidence-based guideline as not in labour, (i.e., her cervix measured 1 centimeter) she underwent a biomedical intervention for induction of labour. Not always recognized by the obstetrical team is that labour progress and patterns are variable among women. Applying evidence-based protocols and demanding objective assessment and evaluation to determine whether women are in active labour negates clinician awareness of the realities and complexities of actual practice (Mykhalovskiy, 2003).

Waters and Rankin (2019) conducted an IE investigation of nurses' wound care work in an outpatient wound care clinic. Specifically, the researchers explored how nurses are coordinated in terms of knowing what to do and knowing what can be excluded related to wound assessment and nursing interventions. Resonating with my critical analysis, the researchers concluded that organizational texts (i.e., flowsheets) which nurses were required to complete focused nursing attention, exclusively, on the biophysical dimension of nursing care. Meticulous documentation of wound assessment and treatment, much like the requisite partogram flowsheet documentation in labour and delivery, was void of the subjective patient experience. Nurses' wound care work appeared to lack a holistic, systematic approach to evaluating the wound healing process. Similarly, nurses' work in labour and delivery in terms of the provision of holistic, supportive care, has been largely made invisible.

There are several topics to consider for future nursing research. First, additional IE studies are required to explore nursing education and the disconnect between what is taught in nursing school and what actually happens when students graduate and begin

clinical practice. Research is warranted to uncover what promotes the technological, biomedical approach over holistic and person-centered nursing care. Investigating the hidden curriculum as described above, would be an ideal research aim and place to begin. Second, evaluation research to test the impacts of amendments to certain texts (e.g., the partogram flowsheet), in terms of contributing to improvements in holistic and person-centered care, and supportive measures in labour and delivery, would be a significant research pursuit. My discovery that the CFCC philosophy is not supported by organizational texts routinely used by labour and delivery nurses is consistent with Rankin's (2014) IE study of nurses working on an acute medical-surgical unit in a Canadian hospital. Rankin discovered that nurses were required to engage organizational texts (e.g., clinical pathways, standardized flowsheets, and a computerized bed and staffing program) when working with patients recovering from head and neck surgeries. Due to the preoccupation with these routine unit texts, the medical-surgical nurses were focused on the *standard* needs of patients and preparations for discharge, and not on the *unique* care needs of patients. Rankin claimed that the patient and family-centered care philosophy was just "empty rhetoric." I argued in Chapter 3 that because of the patient chart documentation expectations (i.e., completing the partogram flowsheet), nurses were forced to place greater emphasis on the collection of biophysical data and on monitoring biomedical interventions as opposed to the CFCC philosophy of information sharing and collaborative decision-making. Finally, research involving women from diverse backgrounds in patient-oriented research as active partners in the research process would ensure that studies focus on patient-identified priorities which would ultimately lead to

better patient outcomes (CIHR, 2021). Participatory Action Research could be an appropriate research approach to address the lack of person-centered care and collaborative decision-making that seems commonplace during the intrapartum period.

Concluding Remarks

The purpose of this IE exploration was to expose the ruling relations that coordinate the work of labour and delivery nurses in a tertiary care center in eastern Canada. As a novice institutional ethnographer, I gained many insights and overcame significant research challenges. I gained insight into what it means to be a researcher with *embodied knowledge* who knows from an experiential place, located within the world of the study subject (Campbell & Gregor, 2008). That is, I had insider knowledge as a member of the nursing profession who was intimately familiar with the everyday work experiences, institutional texts, and ruling discourses that I examined and uncovered during the course of my doctoral research. However, I was also an outsider as a researcher looking in, observing, and learning from my study informants—something I came to realize as I made nuanced discoveries.

As an embodied knower it was important that I was self-aware of how I could be immersed in the discourse ideology of the institution. At times I was "captured" by the institutional discourses being perpetuated by informants. It happened unconsciously. I overcame the challenge of *institutional capture* (Smith, 2005) by first realizing how easily I slipped into the ideological mode versus staying grounded in the everyday embodied experiences shared by informants. I was reminded by my committee how important it is to stay within this frame of reference and know how the world I am

investigating is "reflexively rather than objectively organized" (Smith, 1990, p. 613). I learned to clarify what was being described by informants in spite of my own familiarity with the hospital and the labour and delivery unit staff and physicians. I acquired the vital skill of not taking *anything for granted* by ensuring I had a clear understanding of how things happened. During interviews I stopped and checked my understanding of what informants described. I asked questions to clarify informants' step-by-step description without filling in missing pieces from my *own* experience and knowledge. Maintaining a reflexive journal and holding regular scheduled meetings with my supervisory committee were also instrumental in assisting me to identify moments when I was captured during data analysis. These strategies were key in identifying moments when I *assumed* what was happening rather than realizing what the data actually demonstrated. Going forward, I will be aware of the power of institutional capture on an embodied knower when conducting an IE study and would rephrase some of my questions, ask others differently, and be more direct in my questioning to ensure an empirical study and unbiased interpretation of the data.

Another significant challenge occurred when my investigation began to move from the boundaries of the local unit setting to the extra-local site. IE researchers heading into these *uncharted* extra-local territories could make some organizational leaders feel threatened or uncomfortable (Bisallion & Rankin, 2012; Campbell & Gregor, 2008). As such, the researcher could be viewed as "making trouble" for the institution (Bisallion & Rankin, 2012, para 43). As I moved through the analysis my investigation led me to departments of the regional health authority that managed patient safety and risk and

professional practice complaints in nursing, but access to these departments was denied. One potential informant feared being identified in the findings and the other informant refused to participate based on the belief that fetal health surveillance is not part of the job description (i.e., regional health authority legal department). Fortunately, the lack of access did not adversely affect my data collection or analysis. I was able to use publicly available information on the regional health authority's website and listen to medical malpractice podcasts that enabled me to piece together how regulatory policies and legal statutes impact professional practice pertaining to fetal health surveillance.

Another challenge for inexperienced IE researchers when collecting and analyzing data in IE investigations, is the ability to *keep the institution in view* (McCoy, 2006). This refers to the aim of IE research which is to explicate the social relations that organize individual experiences within the local setting. During some of the interviews my focus was mainly on what was happening at the local unit level. Once I re-read the interviews and saw this was the case, I was able to shift my focus by asking some questions differently in order to delve deeper concerning the extra-local relations impacting on low-level doings.

According to Wall (2010), "critical sociological thinking about nurses' work [is needed] to uncover the sociopolitical forces at play that impact [on] nurses' everyday work and explicate the underlying issues that must be addressed if change is to occur" (p. 158). In the end, IE enabled me to address the practice disjuncture concerning fetal health surveillance and to expose how biomedical and medical-legal discourses are organizing nurses' work. The discoveries provide a starting place in which to show labour and

delivery nurses what is actually happening in their everyday work and can act as a catalyst for practice change. Through carefully chosen KT strategies nurses can first be made aware how they are active agents and unknowingly perpetuating these ruling discourses that may have negative consequences for childbearing women and their families, before mobilizing stakeholder support for the critical yet often invisible work of nurses in labour and delivery.

References

Afshar, Y., Mei, J., Fahey, J., & Gregory, K. D. (2019). Birth plans and childbirth education: What are provider attitudes, beliefs, and practices? *The Journal of Perinatal Education, 28*(1), 10–18. https://doi.org/10.1891/1058-1243.28.1.10

Almerud, S., Alapack, R. J., Fridlund, B., & Ekebergh, M. (2008). Caught in an artificial split: A phenomenological study of being a caregiver in the technologically intense environment. *Intensive and Critical Care Nursing*, 24(2), pp. 130–136. https://doi.org/10.1016/j.iccn.2007.08.003

Anderson, C. J., & Kilpatrick, C. (2012). Supporting patients' birth plans: theories, strategies & implications for nurses. *Nursing for Women's Health, 16*(3), 210-218. https://doi.org/10.1111/j.1751-486X.2012.01732.x

Armstrong, R., Waters, E., Dobbins, M., Anderson, L., Moore, L., Petticrew, M., Clark, R. Pettman, T. L., Burns, C., Moodie, M., Conning, R., & Swinburn, B. (2013). Knowledge translation strategies to improve the use of evidence in public health decision-making in local government: Intervention design and implementation plan. *Implementation Science 8*, (121). https://doi.org/10.1186/1748-5908-8-121

Aschenbrenner, A., Hanson, L., Johnson, T.S., Kelber, S.T. (2016). Nurses' own birth experiences influence labor support attitudes and behaviors. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 45* (4), 491-501. https://doi.org/10.1016/j.jogn.2016.02.014

Association of Women's Health Obstetric and Neonatal Nurses (AWHONN) (2018). AWHONN position statement: Fetal heart monitoring. *Journal of Obstetrics, Gynecologic, & Neonatal Nursing, 47*(6), 874–877. https://doi.org/10.1016/j.jogn.2018.09.007

Barry, M.A. & Kerr, N. (2019). Documenting and reporting. In P. Potter, P. Stockert, A. G. Perry, & A. Hall., B.J. Astle, W. Duggleby. *Canadian fundamentals of nursing* (6th ed., pp 233-253). Elsevier.

Beck, C. T. (2004a). Birth trauma: In the eye of the beholder. *Nursing Research, 53*(1), 28–35. https://doi.org/10.1097/00006199-200401000-00005

Beck, C. T. (2004b). Post-traumatic stress disorder due to childbirth: The aftermath. *Nursing Research, 53*(4), 216–224. https://doi.org/10.1097/00006199-200407000-00004

Beck, C. T. (2006). The anniversary of birth trauma: Failure to rescue. *Nursing Research, 55*(5), 381–390. https://doi.org/10.1097/00006199-200611000-00002

Benner, P. (2004). Relational ethics of comfort, touch, and solace - Endangered arts? American *Journal of Critical Care, 13*(4), 346–349. https://doi.org/10.4037/ajcc2004.13.4.346

Bisaillon, L., & Rankin, J. M. (2012). Navigating the politics of fieldwork using institutional ethnography: Strategies for practice. *Forum: Qualitative Social Research, 14*(1) https://doi.org/10.17169/fqs-14.1.1829

Borg, E. (2003). Intermittent auscultation of the fetal heart rate. *The Canadian Nurse, 99*(8), 40–41. https://pubmed.ncbi.nlm.nih.gov/14558316/

Brydges, R., Nemoy, L., Campbell, D.M., Meffe, F., Moscovitch, L., Fella, S., Chandrasekaran, N., Bishop, C., Khodadoust, N. & Ng, S. (2021). “We can’t have a casual conversation”: An institutional ethnography-informed study of work in labour and birth. *Social Science and Medicine, 279*, (113975). https://doi.org/10.1016/j.socscimed.2021.113975

Buresh, B., & Gordon, S. (2006). *From silence to voice: What nurses know and must communicate to the public* (2nd ed.). ILR Press.

Campbell, M. L. (2001). Textual accounts, ruling action: The intersection of knowledge and power in the routine conduct of community nursing work. *Studies in Cultures, Organizations and Societies*, *7*(2), 231–250. https://doi.org/10.1080/10245280108523559

Campbell, M., & Gregor, F. (2008). *Mapping social relations: A primer in doing institutional ethnography.* Higher Education University of Toronto Press.

Campbell, M. L., & Rankin, J. M. (2017). Nurses and electronic health records in a Canadian hospital: Examining the social organisation and programmed use of digitised nursing knowledge. *Sociology of Health & Illness*, *39*(3), 365–379. https://doi.org/10.1111/1467-9566.12489

Canadian Institutes of Health Research (CIHR) (2021). Strategy for patient-oriented research. https://cihr-irsc.gc.ca/e/41204.html

Canadian Association of Schools of Nursing (CASN) (2015). *National Nursing Education Framework: Final Report.* https://www.casn.ca/wp-content/uploads/2018/11/CASN-National-Education-Framwork-FINAL-2015.pdf

Canadian Association of Schools of Nursing (CASN) (2017). *Entry-to-Practice Competencies for Nursing Care of the Childbearing Family for Baccalaureate Programs in Nursing* https://www.casn.ca/2018/01/entry-practice-competencies-nursing-care-childbearing-family-baccalaureate-programs-nursing/

Canadian Association of Perinatal and Women's Health (CAPWHN) (2018). *Perinatal nursing standards in Canada*. https://capwhn.ca/wp-content/uploads/2019/10/PERINATAL_NURSING_STANDARDS_IN_CANADA.pdf

Canadian Nurses Protective Society (CNPS) (2020). *Quality documentation: Your best defence*. https://cnps.ca/article/quality-documentation/

Carlton, T., Callister, L. C., Christiaens, G., & Walker, D. (2009). Labor and delivery nurses' perceptions of caring for childbearing women in nurse-managed birthing units. *MCN: The American Journal of Maternal/Child Nursing, 34*(1), 50-56. https://doi:10.1097/01.NMC.0000343866.95108.fa

College of Registered Nurses of Newfoundland and Labrador (CRNNL) (2010). *Documentation standards for registered nurses*. https://crnnl.ca/documentation-standards-registered-nurses-2010

College of Registered Nurses of Newfoundland and Labrador (CRNNL) (2019). *Standards of practice for registered nurses and nurse practitioners.* https://www.crnnl.ca/sites/default/files/documents/Standards_of_Practice_for_RNs_and_NPs.pdf

Coyne, I., O'Neill, C., Murphy, M., Costello, T., & O'Shea, R. (2011). What does family-centred care mean to nurses and how do they think it could be enhanced in practice. *Journal of Advanced Nursing, 67*(12), 2561-2573. https://doi.org/10.1111/j.1365-2648.2011.05768.x

Dean, S., Williams, C., & Balnaves, M. (2015). Practising on plastic people: Can I really care? *Contemporary Nurse : A Journal for the Australian Nursing Profession*, *51* (2), 257-271. http://dx.doi.org/10.1080/10376178.2016.1163231

Devane, D., Lalor, J. G., Daly, S., Mcguire, W., Cuthbert, A., & Smith, V. (2017). Cardiotocography versus intermittent auscultation of fetal heart on admission to labour ward for assessment of fetal wellbeing. *Cochrane Database of Systematic Reviews,(1)* Article CD005122. https://doi.org/10.1002/14651858.CD005122.pub5

Dobson, Y. (2018). The experiences of intrapartum nurses in a northeastern Ontario, Canada setting in providing labour support [Unpublished master's thesis]. Laurentian University. https://zone.biblio.laurentian.ca/handle/10219/3293

Dore, S., & Ehman, W. (2020). No. 396-Fetal Health Surveillance: Intrapartum Consensus Guideline. *Journal of Obstetrics and Gynaecology Canada,42*(3), 316–348.e9. https://doi.org/10.1016/j.jogc.2019.05.007

Fenwick, J., Toohill, J., Gamble, J., Creedy, D. K., Buist, A., Turkstra, E., Sneddon, A., Scuffham, P. A., & Ryding, E. L. (2015). Effects of a midwife psycho-education intervention to reduce childbirth fear on women's birth outcomes and postpartum psychological wellbeing. *BMC Pregnancy and Childbirth*, *15*(284). https://doi.org/10.1186/s12884-015-0721-y

Gagnon, A. J., & Waghorn, K. (1996). Supportive care by maternity nurses: A work sampling study in an intrapartum unit. *Birth*, *23*(1), 1–6. https://doi.org/10.1111/j.1523-536x.1996.tb00453.x

Gale, J., Fothergill-Bourbonnais, F., & Chamberlain, M. (2001). Measuring nursing support during childbirth. *The American Journal of Maternal/Child Nursing, 26*(5), 264–271. https://doi.org/10.1097/00005721-200109000-00010

Gottlieb L. N. (2013). *Strengths-based nursing care: Health and healing for person and family*. Springer Publishing.

Grol, R., Wensing, M., Eccles, M., & Davis, D. (Eds.) (2013). *Improving patient care: The implementation of change in health care*, (2nd ed.). Wiley Blackwell. https://doi.org/10.1002/9781118525975

Growe, S. J. (1991). *Who Cares?: The crisis in Canadian nursing.* McClelland & Stewart Inc.

Hartrick Doane, G., & Varcoe, C. (2015). *How to nurse: Relational inquiry with individuals and families in changing health and health care contexts.* Wolters Kluwer.

Hartrick Doane, G., & Varcoe, C. (2021). *How to nurse: Relational inquiry in action,* (2nd ed.). [electronic version]. Wolters Kluwer. https://thepoint.lww.com/Book/Show/944102

Hodnett, E. D., Gates, S., Hofmeyr, G. J., & Sakala, C. (2013). Continuous support for women during childbirth. *Cochrane Database of Systematic Reviews (7),* Article CD003766. https://doi.org/10.1002/14651858.CD003766.pub5

Holmes, D., Perron, A. & O'Byrne, P. (2006). Evidence, virulence, and the disappearance of nursing knowledge: A critique of the evidence-based dogma. *Worldviews on Evidence Based Nursing,3* (3), 95-102. https://doi.org/10.1111/j.1741-6787.2006.00058.x

Johnson, M., Jefferies, D., & Nicholls, D. (2012). Exploring the structure and organization of information within nursing clinical handovers. *International Journal of Nursing Practice, 18*(5), 462–470, https://doi.org/10.1111/j.1440-172X.2012.02059.x

Keenan-Lindsay, L. (2017). Nursing care of the family during labor and birth. In In S. Perry, M. Hockenberry, D. Lowdermilk, D. Wilson, L. Keenan-Lindsay, & C. Sams *Maternal child nursing care in Canada* (2nd ed., pp.3-13). Elsevier Canada.

Klein, M. C., Kaczorowski, J., Tomkinson, J., Hearps, S., Baradaran, N., Brant, R., & Maternity Care Research Group. (2011). Family physicians who provide intrapartum care and those who do not: Very different ways of viewing childbirth. *Canadian Family Physician, 57*(4), e139-e147. https://www.cfp.ca/content/cfp/57/4/e139.full.pdf

Kleppe, L. C., Heggen, K., & Engebretsen, E. (2016). Nursing textbooks' conceptualization of nurses' responsibilities related to the ideal of a holistic view of the patient: A critical analysis. *Journal of Nursing Education and Practice, 6*(3), 106–115. https://doi.org/10.5430/jnep.v6n3p106

Lee, L., Dy, J., & Azzam, H. (2016). Management of spontaneous labour at term in healthy women. *Journal of Obstetrics and Gynaecology Canada: JOGC*, *38*(9), 843–865. https://doi.org/10.1016/j.jogc.2016.04.093

Levine, M. S., & Lowe, N. K. (2014). Nurse attitudes towards childbirth: A concept clarification. *Nursing Forum, 49*(2), 88–99. https://doi.org/10.1111/nuf.12040

Limoges, J. (2010). An exploration of ruling relations and how they organize and regulate nursing education in the high-fidelity patient simulation labouratory. *Nursing Inquiry*, *17*(1), 58–64. https://doi.org/10.1111/j.1440-1800.2009.00484.x

Liston, R., Sawchuck, D., & Young, R. (2007). SOGC Clinical practice guideline No. 197a-Fetal health surveillance: Antepartum and intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada*, *29*(9), S3–S56.

Liston, R., Sawchuck, D., & Young, D. (2018). Reaffirmed SOGC clinical practice guideline. No.197b: Fetal health surveillance: Intrapartum consensus guideline. *Journal of Obstetrics and Gynaecology Canada, 40*(4), pp. e298–e322. https://doi.org/10.1016/j.jogc.2018.02.011

Liva, S., Hall, W. A., Klein, M. C., & Wong, S. T. (2012). Factors associated with differences in Canadian perinatal nurses' attitudes towards birth practices. *Journal of Obstetrics, Gynecologic, & Neonatal Nursing, 41*(6), 761–773. https://doi:.org/10.1111/j.1552-6909.2012.01412.x

Lothian, J. (2006). Birth plans: the good, the bad, and the future. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 35*(2), 295-303. https://doi.org/10.1111/j.1552-6909.2006.00042.x

Lothian, J. A. (2014). Healthy birth practice #4: Avoid interventions unless they are medically necessary. *The Journal of Perinatal Education, 23*(4), 198–206. https://doi.org/10.1891/1058-1243.23.4.198

Lyndon, A., Rice Simpson, K., Spetz, J. (2017). Thematic analysis of US stakeholder views on the influence of labour nurses' care on birth outcomes. *BMJ Quality & Safety, 26*(10), 824-831. https://doi:10.1136/bmjqs-2016-005859

MacMillan K. (2016). The hidden curriculum: What are we actually teaching about the fundamentals of care? *Nursing Leadership 29*(1), 37–46. https://doi.org/10.12927/cjnl.2016.24644

McCoy, L. (2006). Keeping the institution in view: Working with interview accounts of everyday experience. In D. E. Smith (Ed.), *Institutional ethnography as practice*, (pp. 109–125). Rowman & Littlefield Publishers.

McNiven, P., Hodnett, E., & O'Brien-Pallas, L. L. (1992). Supporting women in labour: A work sampling study of the activities of labour and delivery nurses. *Birth, 19*(1), 3–8. https://doi.org/10.1111/j.1523-536x.1992.tb00363.x

Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*, *6*(42). https://doi.org/10.1186/1748-5908-6-42

Milter, R. S. (2000). Identifying labour support actions of intrapartum nurses. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 29*(5), 491–499. https://doi.org/10.1111/j.1552-6909.2000.tb02770.x

Morin, F., & Rivard, L. (2017). Pain management during labour. In S. Perry, M. Hockenberry, D. Lowdermilk, D. Wilson, L. Keenan-Lindsay, & C. Sams (Eds.), *Maternal child nursing care in Canada* (2nd ed., pp. 460–490). Elsevier Canada.

Mykhalovskiy, E. (2003). Evidence-based medicine: Ambivalent reading and the clinical recontextualization of science. *Health, 7*(3), 331–352. https://doi.org/10.1177/1363459303007003005

Nilsson, L., Thorsell, T., Hertfelt Wahn, E., & Ekström, A. (2013). Factors Influencing Positive Birth Experiences of First-Time Mothers. *Nursing Research and Practice*, *2013*, 1–6. https://doi.org/10.1155/2013/349124

Pennell, A., Salo-Coombs, V., Herring, A., Spielman, F., & Fecho, K. (2011). Anesthesia and analgesia–related preferences and outcomes of women who have birth plans. *Journal of Midwifery & Women's Health, 56*(4), 376-381. https://doi.org/10.1111/j.1542-2011.2011.00032.x

Porr, C. (2017). *Establishing therapeutic relationships in nursing practice: Advancing interpersonal competencies*. [preliminary edition]. Kendall Hunt.

Porr, C. & Mahtani-Chugani, V. (2008, January). How will RCTs provide evidence for this patient? [Electronic version]. *International Journal of Family Practice and American Family Physicians*. https://www.priory.com/family_medicine/rct_evidence.htm

Porter, S. & O'Halleran, P. (2008). The postmodernist war on evidence-based practice. *International Journal of Nursing Studies, 46* (5), 740-748. https://doi.org/10.1016/j.ijnurstu.2008.11.002

Public Health Agency of Canada (PHAC) (2009). *What mothers say: The Canadian maternity experiences survey.* Cat.No. HP5-74/2-2009E-PDF.

Rankin, J. & Campbell, M. L. (2009). Institutional ethnography (IE), nursing work, and hospital reform: IE's cautionary analysis. *Forum: Qualitative Social Research, 10*(2), Article 8 http://www.qualitativeresearch.net/index.php/fqs/article/view/1258

Rankin, J. M. (2014). The rhetoric of patient and family-centered care: An institutional ethnography into what actually happens. *Journal of Advanced Nursing*, *71*(3), 526–534. https://doi.org/10.1111/jan.12575

Rieger, S. (2020). Recommendation to replace higher-educated nurses with cheaper staff could backfire, nurses warn. *CBC News*. https://www.cbc.ca/news/canada/calgary/nurses-ahs-review-1.5452219

Risjord, M. (2010). *Nursing knowledge: Science, practice, and philosophy*. Wiley-Blackwell.

Rittenhouse, J. (2015, October 10). Improving stakeholder management using change management tools [Paper presentation]. PMI® Global Congress 2015—North America, Orlando, FL, Newtown Square, PA: Project Management Institute. United States. https://www.pmi.org/learning/library/improve-stakeholder-management-9901

Regional Health Authority (2020). Client and family centered care (CFCC) philosophy. Author. https://www.easternhealth.ca/prc/your-say/cfcc/

Rothman, B. (1989). Recreating motherhood: Ideology and technology in patriarchal society. W.W. Norton & Company.

Sackett, D. L., Straus, S. E., Richardson, W. S., Rosenberg, W., & Haynes, R. B. (2000). *Evidenced-based medicine : How to practice and teach EBM* (2nd ed.). Harcourt Publishers Limited.

Simkin, P. (2020). Birth trauma: Definitions and statistics. Prevention and treatment of traumatic childbirth (PATTCh). http://pattch.org/resource-guide/traumatic-births-and-ptsd-definition-and-statistics/#

Simkin, P. (2007). Birth plans: after 25 years, women still want to be heard. *Birth, 34*(1), 49-51. https://doi.org/10.1111/j.1523-536X.2006.00126.x

Simkin, P. (1992). Just Another Day in a Woman's Life? Part 11: Nature and Consistency of Women's Long-Term Memories of Their First Birth Experiences. *Birth*, *19*(2), 64–81. https://doi.org/10.1111/j.1523-536X.1992.tb00382.x

Small, K. A., Sidebotham, M., Fenwick, J., & Gamble, J. (2020). Intrapartum cardiotocograph monitoring and perinatal outcomes for women at risk: Literature review. *Women and Birth, 33*, 411–418. https://doi.org/10.1016/j.wombi.2019.10.002

Smith, D.E. (2005). Institutional ethnography: A sociology for people. Alta Mira Press.

Smith, G. W. (1990). Political activist as ethnographer. *Social Problems, 37*(4), 629–648. https://doi.org/10.2307/800586

Snelgrove-Clarke, E., Davies, B., Flowerdew, G., & Young, D. (2015). Implementing a fetal surveillance guideline in clinical practice: A pragmatic randomized controlled trial of action learning. *Worldviews on Evidence-Based Nursing, 12*(5), 281–288. https://doi.org/10.1111/wvn.12117

Society of Obstetricians Gynaecologists Canada (SOGC) (2020). Choosing Wisely Canada: In Collaboration with the Canadian Medical Association. *Obstetrics and Gynaecology: Twelve things physicians and patients should question.* https://choosingwiselycanada.org/wp-content/uploads/2020/10/Obstetrics-and-gynaecology_EN_2020.pdf

Thorne, S. (2019). Theoretical foundations of nursing practice. In P. Potter, A. Perry, P. Stockert, A. Hall, B. Astle, & W. Duggleby (Eds.), *Canadian fundamentals of nursing* (6th ed, pp. 63–74). Elsevier Canada.

Thorne, S., & Stajduhar, K. (2017). Rebuilding the Roots of Patient-Centred Care. *Canadian Journal of Nursing Leadership 30*(1), 23–29. https://doi.org/10.12927/cjnl.2017.25109

Toohill, J., Fenwick, J., Gamble, J., Creedy, D. K., Buist, A., Turkstra, E., & Ryding, E. L. (2014). A randomized controlled trial of a psycho-education intervention by midwives in reducing childbirth fear in pregnant women. *Birth, 41*(4), 384–394. https://doi.org/10.1111/birt.12136

Wall, S. (2010). Critical perspectives in the study of nursing work. *Journal of Health Organization and Management, 24*(2), 145–166. https://doi.org/10.1108/14777261011047327

Ward, S. L., Hisley, S. M., & Kennedy, A. M. (2016). *Maternal-child nursing care: Optimizing outcomes for mothers, children, and families*. F.A. Davis Company.

Waters, N. & Rankin, J. (2019). The hierarchy of evidence in advanced wound care: The social organization of limitations in knowledge. *Nursing Inquiry*, *26* (4), 1-10. https://doi.org/10.1111/nin.12312

Watkins, K. (2019). Ten reasons why organizational culture is so crucial and the implications for changing it. https://www.wraysearch.com/michael-watkins-october-2019/

White-Corey, S. (2013). Birth plans: tickets to the OR? *The American Journal of Maternal/Child Nursing, 38* (5), 268-273. https://doi:10.1097/NMC.0b013e31829a399d

Zwelling, E. (2008). The emergence of high-tech birthing. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 37(1),* 85–93. https://doi.org/10.1111/j.1552-6909.2007.00211.x

Appendix A

Health Ethics Research Approval, Recruitment, and Consent Forms

Ethics Office

NEWFOUNDLAND AND LABRADOR
HREB
HEALTH RESEARCH ETHICS BOARD

Suite 200, Eastern Trust Building 95 Bonaventure Avenue St. John's , NL A1B 2X5

March 20, 2019

MUN School of
Nursing Health
Sciences Centre
Prince Philip Dr.
St. Johns, NL

Dear Ms. Kelly:

Researcher Portal File #
20192638 Reference #
2019.030

RE: "Studying Fetal Surveillance to Understand the Organization of Nurses' Work in Labour and Delivery "

This will acknowledge receipt of your correspondence dated March 11, 2019.
Your application was reviewed by the Health Research Ethics Board (HREB) at the meeting held on March 7, 2019. Your revised application has been reviewed by the Co-Chair under the direction of the HREB.

Ethics approval of this research study is granted for one year effective March 20, 2019. This ethics approval will be reported to the HREB at the next scheduled meeting.
This is your ethics approval only. Organizational approval may also be required. It is your responsibility to seek the necessary organizational approval from the Regional Health Authority (RHA) or other organization as appropriate. You can refer to the HREA website for further guidance on organizational approvals.

This is to confirm that the HREB reviewed and approved or acknowledged the following documents (as indicated):

- Application, approved
- Research proposal, approved
- RN Information Session Script, approved
- EH Labour and delivery flow sheet, approved
- Scripts for RN Requesting Permission from Women and Researcher once present in Room, approved
- Information poster, approved
- Professionals Consent Form, approved
- Nurse consent form, approved
- Permission from Divisional Manager for Perinatal Program re access to documents, acknowledged
- Permission from Divisional Manager for Perinatal Program re access to documents, acknowledged
- Request permission for EH documents related to fetal surveillance, approved
- Email to nurse manager with response, approved
- Information letter other professionals, approved
- Information letter NURSES, approved
- Budget, approved
- Recruitment poster professionals, approved
- Research Tool Face to face interview

MARK THE DATE

This ethics approval will lapse on March 20, 2020. It is your responsibility to ensure that the Ethics Renewal form is submitted prior to the renewal date; you may not receive a reminder. The Ethics Renewal form can be found on the Researcher Portal as an Event Form. If you do not submit the completed Ethics Renewal form prior to date of renewal:

- ***You will no longer have ethics approval***
- *You will be required to stop research activity immediately*
- *You may not be permitted to restart the study until you reapply for and receive approval to undertake the study again*
- *Lapse in ethics approval* ***may result in interruption or termination of funding***.

You are solely responsible for providing a copy of this letter, along with your approved HREB application form; to **Research Grant and Contract Services** should your research depend on funding administered through that office.

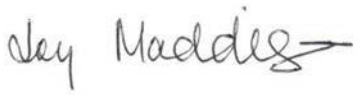
Modifications of the protocol/consent are not permitted without prior approval from the HREB. **Implementing changes in the protocol/consent without HREB approval may result in your ethics approval being revoked, meaning your research must stop.** Request for modification to the protocol/consent must be outlined on an amendment form available on the

Researcher Portal website as an Event Form and submitted to the HREB for review. Please refer to the attached guidance document regarding on-going reporting requirements to the HREB.

The HREB operates according to the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2), the Health Research Ethics Authority Act (HREA Act) and applicable laws and regulations.

You are responsible for the ethical conduct of this research, notwithstanding the approval of the HREB.
We wish you every success with
your study.

Sincerely,



Dr. Joy Maddigan (Vice-Chair, Non-Clinical Trials Health Research Ethics Board)
CC: Dr. Caroline Porr

Eastern Health

Department of Research
5th Floor Janeway Hostel
Health Sciences Centre
300 Prince Philip Drive
St. John's, NL A1B 3V6
Tel: (709) 752-4636
Fax: (709) 752-3591

April 10, 2019

Ms. Paula Kelly
MUN School of Nursing
300 Prince Philip Drive
St. John's, NL
A1B 3V6

Dear Ms. Kelly,

Your research proposal *HREB Reference #: 2019.030 "Studying Fetal Surveillance to Understand How Nurses' Work is Organized"* was reviewed by the Research Proposals Approval Committee (RPAC) of Eastern Health at a meeting dated April 9, 2019 and we are pleased to inform you that the proposal has been granted full approval.

The approval of this project is subject to the following conditions:

- The project is conducted as outlined in the HREB approved protocol;
- Adequate funding is secured to support the project;
- In the case of Health Records, efforts will be made to accommodate requests based upon available resources. If you require access to records that cannot be accommodated, then additional fees may be levied to cover the cost;
- A progress report being provided upon request.

If you have any questions or comments, please contact Krista Rideout, Manager of the Patient Research Centre at 777-7283 or by email at krista.rideout@easternhealth.ca.

Sincerely,

Farah McCrate
Regional Director, Research and Innovation
Co-Chair, RPAC

FM/rg

Studying Fetal Surveillance to Understand the Organization of Nurses' Work in Labour and Delivery

Would you like to take part in this research study?

We are looking for professionals working within the area of obstetrics including:

- Labour and delivery nurses currently working in the labour and delivery unit and have experience with and expertise in fetal surveillance.
- Individuals who manage and/or supervise individuals who work in labour and delivery.
- Individuals whose work is related to policy, standards, and regulations related to the labour and delivery unit.

Taking part in this study may involve an observation session during your work day and/or a face-to-face interview in order to seek further clarification and explanation.

For more information about the study or to ask if you can take part, please contact:

Paula Kelly RN PhD(c) Memorial University School of Nursing
paulak@mun.ca
709-777-7007

Or you can speak with someone who is not involved in the study but can advise you on your rights as an informant in this study. This person can be reached at:

Ethics Office: 709-777-6974 or email info@hrea.ca

MEMORIAL UNIVERSITY

School of Nursing

The Health Science Centre
St. John's, NL, A1B 3V6, Canada
Tel: 709 777 6695 Fax: 709 777 7037 www.mun.ca/nursing

DATE here

Dear _____(insert name),

As you may know, I am a registered nurse and am currently pursuing a PhD in Nursing at Memorial University School of Nursing. One of the requirements for this degree is to complete a research study. Therefore, I invite you take part in a study entitled ***Studying Fetal Surveillance to Understand the Organization of Nurses' Work in Labour and Delivery.*** In particular, this study is aimed at discovering how nurses' fetal surveillance work is organized to occur as it does and to uncover how this vital work is linked to greater societal influences.

With this in mind, I intend to identify how institutional and social contexts shape nurses' decision-making and the elements they believe affect their work. This will be done through observations as you go about your everyday work, followed by individual interviews with me. The interviews are required in order to provide clarification to my observations, gain insight into how you go about fetal surveillance work, and discuss with you any forms and/or documents you use when conducting fetal surveillance work.

Health Research Ethics Authority and Eastern Health approve this study. I will be on the unit to provide information sessions related to the study and to answer any questions or concerns you may have related to participating in the study. I can also be reached by through one of the ways listed below. Once you confirm your interest, you will be asked to read and sign both a question guide and a consent form indicating your agreement to participate in the study.

Your participation in this study will help with identifying what factors influence nurses' work related to fetal surveillance. Thank you for considering this request.

Sincerely,

Paula Kelly RN PhD(c)
paulak@mun.ca
709-864-4763
Health Research Ethics Office 709-777-6974 Email at info@hrea.ca

MEMORIAL UNIVERSITY

School of Nursing

The Health Science Centre
St. John's, NL, A1B 3V6, Canada
Tel: 709 777 6695 Fax: 709 777 7037 www.mun.ca/nursing

DATE here

Dear _____(insert name),

My name is Paula Kelly. I am a registered nurse and am currently pursuing a PhD in Nursing at Memorial University School of Nursing. One of the requirements for this degree is to complete a research study. Therefore, I invite you take part in a study entitled ***Studying Fetal Surveillance to Understand the Organization of Nurses' Work in Labour and Delivery.*** In particular, this study is aimed at discovering how nurses' fetal surveillance work is organized to occur as it does and to uncover how this vital work is linked to greater societal influences.

With this in mind, I intend to identify how institutional and social contexts shape nurses' decision-making and the elements they believe affect their work. Attached is a poster outlining more information about the study. Data will be collected through individual interviews with persons identified as being able to influence the organizational context of nurses' work and to discuss with you any documents you use and/or refer to when conducting your work. Therefore, you may be contacted and an interview will be arranged at a time that is convenient for you.

This study is approved by Health Research Ethics Authority and Eastern Health. I can be reached by through one of the ways listed below. Once you confirm your interest, you will be asked to read and sign both a question guide and a consent form indicating your agreement to participate in the study. Your participation in this study will help with identifying what factors influence nurses' work related to fetal surveillance.

Thank you for considering this request.

Sincerely,

Paula Kelly RN PhD(c)
Paulak@mun.ca; 709-864-4763
Health Research Ethics Office; info@hrea.ca; 709-777-6974

Consent to Take Part in Research
(Participant Observation and Interviews with Nurses)

TITLE: Studying Fetal Surveillance to Understand the Organization of Nurses' Work in Labour and Delivery
INVESTIGATOR(S): Paula Kelly RN, PhD(c)
SUPERVISOR(S): Dr. Caroline Porr

You have been invited to take part in a research study. Taking part in this study is voluntary. It is up to you to decide whether to be in the study or not. You can decide not to take part in the study. If you decide to take part, you are free to leave at any time.

Before you decide, you need to understand what the study is for, what risks you might take and what benefits you might receive. This consent form explains the study.

Please read this carefully. Take as much time as you like. If you like, take it home to think about for a while. Mark anything you do not understand, or want explained better. After you have read it, please ask questions about anything that is not clear. If you decide to participate, a coffee shop gift card worth $10 will be given to you.

The researcher will:

- **discuss the study with you**
- **answer your questions**
- **keep confidential any information which could identify you personally**
- **be available during the study to deal with problems and answer questions**

1. Introduction/Background:

Labour and delivery nurses work within complex multifaceted environments and are members of a health care team who work to assist women to birth their babies safely. Out of all the obstetrical health team members, labour and delivery nurses spend the majority of time at the bedside of labouring women. Their role is complex as they have many competing roles and responsibilities. One of the many responsibilities labour and delivery nurses have and is a fundamental component of caring for women in labour is fetal surveillance. The predominant method of fetal assessment during women's low-risk labour is the electronic fetal monitor despite what evidence and national guidelines recommend. The routine use of the electronic fetal monitor during low-risk labours increases the number of women having a cesarean or

instrumental birth by about 20%. There appears to be a disconnect between "what is actually happening" in clinical practice and what the evidence states and what is recommended by national guidelines. What is influencing nurses' decision-making related to how they carry out their fetal surveillance work? Are there social and institutional factors informing nurses' decision-making when carrying out their fetal surveillance work? This study seeks to answer these questions, with the focus on institutional and societal practices, rather than the individual qualities of the nurse.

2. Purpose of study:

The purpose of this study is to explore the social organization of labour and delivery nurses as exemplified in the everyday activities associated with fetal surveillance.

3. Description of the study procedures:

You will be required to permit the researcher to shadow you while you perform your everyday work related to fetal surveillance. The aim of the observations is to understand how your actions and decisions are linked to the greater societal forces. Verbal permission to observe your interaction will be obtained from labouring women and any other people you interact with in the performance of your duties. During observations, the researcher will make notes. It is important for you to realize that the researcher is not making observations about you as a person. Following your shift, or as soon as possible after, you will participate in a digital recorded interview for approximately one hour. The purpose of the interview is to allow the researcher to clarify her observations, gain insight as to how you organize your fetal surveillance work, and discuss documents/forms used when conducting fetal surveillance during women's low-risk labour.

4. Length of time:

You will be expected to participate in the observational sessions during a day shift you are scheduled to work. These sessions will end once your patient gives birth or your shift ends-which will be a maximum of 12 hours in length. After the observation ends, a maximum of two face-to-face interviews will be required. Each interview will last a maximum of 1-2 hours and will take place in an area convenient for you.

5. Possible risks and discomforts:

There is a potential for you to be identified by your unit as a participant in this study. During the interview, you will be asked certain questions related to specific instances during the observations made by the researcher. You may experience certain emotions. If you should experience any distress about this and you feel it is too difficult to continue, we can stop. If you continue to experience distress about this, I

can suggest the following areas that have individuals (physicians, nurses, social workers) outside of the study to help counsel you. They are:

Eastern Health Employee Family Assistance Program (EFAP):
Kathy Taylor-Rogers (709) 777-3153 or 1-844-335-9722 (Toll Free)

CHANNAL Warm Line: (709) 753-2560 or 1-855-753-2560

Doorways Walk-In Counselling Service: 532 Pleasantville (709) 752-4903

6. Benefits:

It is not known whether this study will benefit you. However, one unintentional benefit maybe that you will think about your work related to fetal surveillance differently.

7. Liability statement:

Signing this form gives us your consent to be in this study. It tells us that you understand the information about the research study. When you sign this form, you do not give up your legal rights. Researchers or agencies involved in this research study still have their legal and professional responsibilities.

8. What about my privacy and confidentiality?

Protecting your privacy is an important part of this study. Every effort to protect your privacy will be made. Any information collected from you during this study will not identify you by name, but coded by a number. Your name will not be disclosed outside this research study. Your name will not be used in any publications or presentations because of this study. All information obtained from you, including digital recorded interviews and observational notes will be stored at Memorial University School of Nursing in a locked cupboard and any electronic files will be password protected accessed only by the researcher. All data from this study will be kept for 5 years.

When you sign this consent form, you give us permission to:

- **Collect information from you**
- **Share information with the people conducting the study**
- **Share information with the people responsible for protecting your safety**

Use of your study information

The researcher will collect and use only the information needed for this research study.
This information will include the length of time you have practiced as in the labour and delivery unit.
If you decide to withdraw from the study, the information collected up to that time will continue to be used by the research team. It may not be removed. This information will only be used for the purposes of this study.

9. Questions or problems:

If you have any questions about taking part in this study, you can meet with the investigator who is in charge of the study. That person is Paula Kelly RN PhD(c) and faculty member, Memorial University School of Nursing. paulak@mun.ca or (709) 777-7007. Alternatively, you can speak to my supervisor Dr. Caroline Porr, cporr@mun.ca or (709) 777-7103.

Or you can talk to someone who is not involved with the study at all, but can advise you on your rights as a participant in a research study. This person can be reached through:

Ethics Office at 709-777-6974
Email at info@hrea.ca

After signing this consent you will be given a copy.

Signature Page

Study title: Studying Fetal Surveillance to Understand the Organization of Nurses' Work in Labour and Delivery.
Name of principal investigator: Paula Kelly RN, PhD(c)

To be filled out and signed by the participant:

	Please check as appropriate:
I have read the consent.	Yes { } No { }
I have had the opportunity to ask questions/to discuss this study.	Yes { } No { }
I have received satisfactory answers to all of my questions.	Yes { } No { }

I have received enough information about the study. Yes { } No { }
I have spoken to Paula Kelly and he/she has answered my questions Yes { } No { }
I understand that I am free to withdraw from the study Yes { } No { }

- at any time
- without having to give a reason

I understand that it is my choice to be in the study and that I may not benefit. Yes { } No { }
I understand how my privacy is protected and my records kept confidential Yes { } No { }
I agree to be audio taped during interviews Yes { } No { }
I agree to be observed at work Yes { } No { }
I agree to take part in this study. Yes { } No { }

_____ _____ _____

Signature of participant Name printed Year Month Day

To be signed by the investigator or person obtaining consent

I have explained this study to the best of my ability. I invited questions and gave answers. I believe that the participant fully understands what is involved in being in the study, any potential risks of the study and that he or she has freely chosen to be in the study.

_____ : _____ : _____

Signature of investigator Name printed Year Month Day

Telephone number: _____

Consent to Take Part in Research
(Interviews with Professionals other than Nurses)

TITLE: Studying Fetal Surveillance to Understand the Organization of Nurses' Work in Labour and Delivery
INVESTIGATOR(S): Paula Kelly RN, PhD(c)
SUPERVISOR(S): Dr. Caroline Porr

You have been invited to take part in a research study. Taking part in this study is voluntary. It is up to you to decide whether to be in the study or not. You can decide not to take part in the study. If you decide to take part, you are free to leave at any time.

Before you decide, you need to understand what the study is for, what risks you might take and what benefits you might receive. This consent form explains the study.

Please read this carefully. Take as much time as you like. If you like, take it home to think about for a while. Mark anything you do not understand, or want explained better. After you have read it, please ask questions about anything that is not clear. If you decide to participate, a coffee shop gift card worth $10 will be given to you.

The researcher will:

- **discuss the study with you**
- **answer your questions**
- **keep confidential any information which could identify you personally**
- **be available during the study to deal with problems and answer questions**

1. Introduction/Background:

Labour and delivery nurses work within complex multifaceted environments and are members of a health care team who work to assist women to birth their babies safely. Out of all the obstetrical health team members, labour and delivery nurses spend the majority of time at the bedside of labouring women. Their role is complex as they have many competing roles and responsibilities. One of the many responsibilities labour and delivery nurses have and is a fundamental component of caring for women in labour is fetal surveillance. The predominant method of fetal assessment during women's low-risk labour is the electronic fetal monitor despite what evidence and national guidelines recommend. The routine use of the electronic fetal monitor during low-risk labours increases the number of women having a cesarean or

instrumental birth by about 20%. There appears to be a disconnect between "what is actually happening" in clinical practice and what the evidence states and what is recommended by national guidelines. What is influencing nurses' decision-making related to how they carry out their fetal surveillance work? Are there social and institutional factors informing nurses' decision-making when carrying out their fetal surveillance work? This study seeks to answer these questions, with the focus on institutional and societal practices, rather than the individual qualities of the nurse.

2. Purpose of study:

The purpose of this study is to explore the social organization of labour and delivery nurses' as exemplified in the everyday activities associated with fetal surveillance.

3. Description of the study procedures:

You will participate in a digital recorded interview for approximately one hour. The interview will be transcribed for data analysis. The focus of the interview will be on some hospital practices and/or policies and procedures which appear to organize fetal surveillance during women's low-risk labour.

4. Length of time:

You will be expected to participate in a maximum of 2 interviews. Each interview will last a maximum of 1-2 hours and will take place in an area convenient for you.

5. Possible risks and discomforts:

There is a potential for you to be identified by your unit as a participant in this study.

6. Benefits:

It is not known whether this study will benefit you. However, one unintentional benefit maybe that you will think about your work differently.

7. Liability statement:

Signing this form gives us your consent to be in this study. It tells us that you understand the information about the research study. When you sign this form, you do not give up your legal rights. Researchers or agencies involved in this research study still have their legal and professional responsibilities.

8. What about my privacy and confidentiality?

Protecting your privacy is an important part of this study. Every effort to protect your privacy will be made. Any information collected from you during this study will not identify you by name, but coded by a number. Your name will not be disclosed outside this research study. Your name will not be used in any publications or presentations as a result of this study. All information obtained from you, including digital recorded interviews and observational notes will be stored at Memorial University School of Nursing in a locked cupboard and any electronic files will be password protected accessed only by the researcher. All data from this study will be kept for 5 years.

When you sign this consent form you give us permission to

- **Collect information from you**
- **Share information with the people conducting the study**
- **Share information with the people responsible for protecting your safety**

<u>Use of your study information</u>

The researcher will collect and use only the information needed for this research study.
If you decide to withdraw from the study, the information collected up to that time will continue to be used by the researcher. It may not be removed. This information will only be used for the purposes of this study.

9. Questions or problems:

If you have any questions about taking part in this study, you can meet with the investigator who is in charge of the study. That person is: Paula Kelly RN PhD(c) and faculty member, Memorial University of Newfoundland School of Nursing. paulak@mun.ca or (709) 777-7007. Or you can speak to my supervisor Dr. Caroline Porr, cporr@mun.ca or (709) 777-7103.

Or you can talk to someone who is not involved with the study at all, but can advise you on your rights as a participant in a research study. This person can be reached through:

Ethics Office at 709-777-6974
Email at info@hrea.ca

After signing this consent you will be given a copy.

Signature Page

Study title: Studying fetal Surveillance to Understand the Organization of Nurses' Work in Labour and Delivery.
Name of principal investigator: Paula Kelly RN PhD(c)

To be filled out and signed by the participant:

Please check as appropriate:

I have read the consent and information sheet. Yes { } No { }

I have had the opportunity to ask questions/to discuss this study. Yes { } No { }

I have received satisfactory answers to all of my questions. Yes { } No { }

I have received enough information about the study. Yes { } No { }

I have spoken to Paula Kelly and he/she has answered my questions Yes { } No { }

I understand that I am free to withdraw from the study Yes { } No { }

- at any time
- without having to give a reason

I understand that it is my choice to be in the study and that I may not benefit. Yes { } No { }

I understand how my privacy is protected and my records kept confidential Yes { } No { }

I agree to be audio taped during interviews Yes { } No { }

I agree to be observed at work Yes { } No { }

I agree to take part in this study. Yes { } No { }

_____ _____ _____

Signature of participant Name printed Year Month Day

<u>To be signed by the investigator or person obtaining consent</u>

I have explained this study to the best of my ability. I invited questions and gave answers. I believe that the participant fully understands what is involved in being in the study, any potential risks of the study and that he or she has freely chosen to be in the study.

_____ : _____ : _____

Signature of investigator Name printed Year Month Day

Telephone number: _____

Appendix B

Guiding Questions for Interviews

Labour and Delivery Nurses

1. Describe your typical day in working as a labour and delivery nurse.
2. Describe your daily activities when caring for women in active labour and [with other health care professionals such physicians, other nurses, unit managers].
3. Describe your role related to fetal surveillance.
4. How did you learn to do fetal monitoring?

Possible prompts:

- Have you taken any fetal surveillance courses? Where did you learn this? [nursing school? orientation? MOREOB® program? other?]
- Have you taken any other courses related to fetal surveillance? What are they?

5. Describe what you consider in making decisions related to fetal surveillance.

Possible prompts:

- Remember when the fetal heart demonstrated (e.g., bradycardia) how did you know or learn to do [intervention/skill]?
- How did you know to do [intervention/skill] at that time?
- How did you know to apply the monitor at that time?
- How do you know when to use the monitor and when not to use it?

6. What documents do you use to document fetal surveillance?

Possible Prompts:

- Where do these documents/forms originate from?
- Who is responsible for developing the documents/forms?
- How are they completed?
- How did you learn what to document?
- How do you know what to document?
- What happens once they are completed?
- Where are they sent?
- What happens next?
- How user friendly are the document/forms to use?

Obstetrician, Obstetrical Resident, Family Practice Physician

1. Describe your typical day in working as an obstetrician, resident, family physician.
2. Describe your daily activities when caring for women in active labour and [with other health care professionals such physicians, other nurses, unit managers].
3. Describe your role related to fetal surveillance.
4. How did you learn fetal monitoring? [medical school, residency program, fetal surveillance courses? MOREOB® program?]
    - Have you taken any other courses related to fetal surveillance?
5. Describe what you consider in making decisions related to fetal surveillance.

Possible prompts:

- Remember when the fetal heart showed (e.g., bradycardia) how did you know or learn to do [intervention/skill]?
- How did you know to do [intervention/skill] at that time?
- How did you know to tell the nurse to apply the monitor at that time?
- How do you know when to use the monitor and when not to use it?

6. What documents do you use to document fetal surveillance?
    - How are they completed?
    - How do you know what to document?
    - How did you learn what to document?
    - How user friendly are the document/forms to use?
    - What happens once they are completed?
    - Where are they sent?
    - What happens next?

Nurse Manager

1. Describe your typical day in working as a nurse manager and [with nurses, physicians, patients]. What are the reasons for your contact with these individuals?
2. Describe your role within labour and delivery unit.
3. What is your role as it relates to fetal surveillance?
4. Do you see fetal surveillance documentation? If yes, for what reasons? What happens once completed?

5. Are you involved in documenting fetal surveillance? If yes, what documents do you use? How are they filled out? What happens once the document is completed?
6. What individuals within the department are you in usual contact?
7. How do you orientate new nurses to the unit?
8. Do you have a hiring preference for those people who have completed a fetal monitoring course or any previous experience within this area?

Nurse Educator and Provincial Perinatal Educator

1. Describe your typical day in working as a nurse educator.
2. Describe your role within the labour and delivery unit.
3. Describe how you orientate new nurses to the unit.
4. Describe what is included in nursing orientation?
5. What is your role related to fetal surveillance?
6. How is fetal surveillance taught during orientation?
7. How is fetal surveillance education structured for the unit?
8. What texts, documents, guidelines inform the fetal surveillance education?
9. How often is fetal surveillance education taught/presented/discussed to unit labour and delivery nurses?
10. Describe any professional development courses related to fetal surveillance that are required as part of the ongoing labour and delivery nurses' professional development.
11. Does any of these courses offer certification? If yes, which ones?

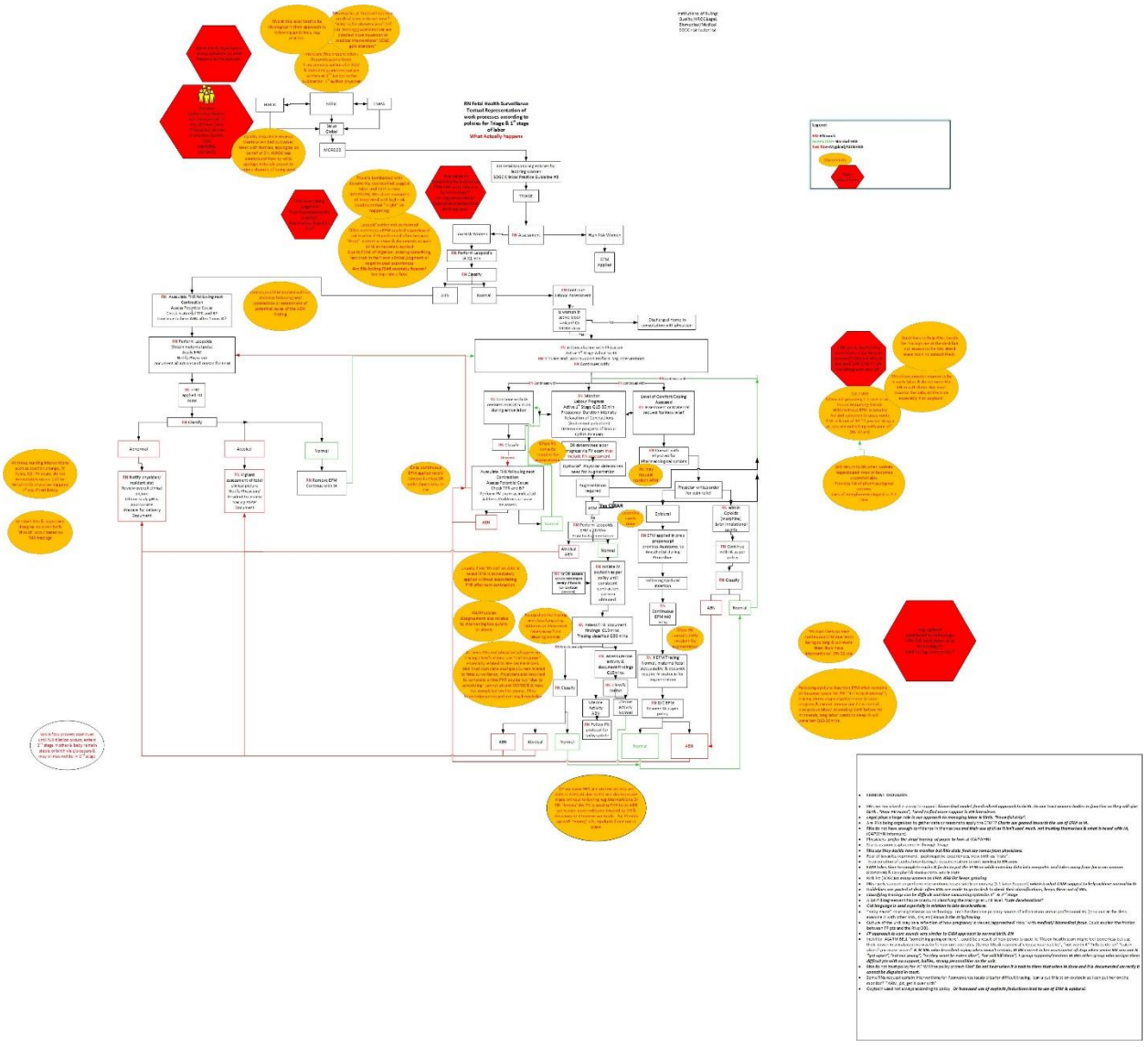
12. How often are these fetal surveillance professional development courses required to be recertified?
13. What happens if you have concerns regarding health care professionals level related to fetal surveillance?

Hospital Administrators (Program Manager, Eastern Health Lawyer, Medical Department Head for Obstetrics and Gynecology)

1. Describe your role within the department of obstetrics within Eastern Health. Specifically, as it relates to labour and delivery unit.
2. Can you describe your role related to fetal surveillance?
3. What individuals are you in contact with inside the labour and delivery unit?
4. Can you describe the usual reasons for contact with these individuals within labour and delivery?
5. What texts, documents, guidelines, or forms do you work with as related to labour and delivery?
6. How are these documents related to labour and delivery, specifically fetal surveillance?
7. Who is responsible for policy creation in labour and delivery?
8. Describe your role related to policy review, update, renewal.
9. What documents, texts, guidelines inform fetal surveillance policies?
10. Describe your role related to addressing quality assurance, legal concerns, and litigation within labour and delivery unit.
11. What documents, forms, texts, advise you in such cases?

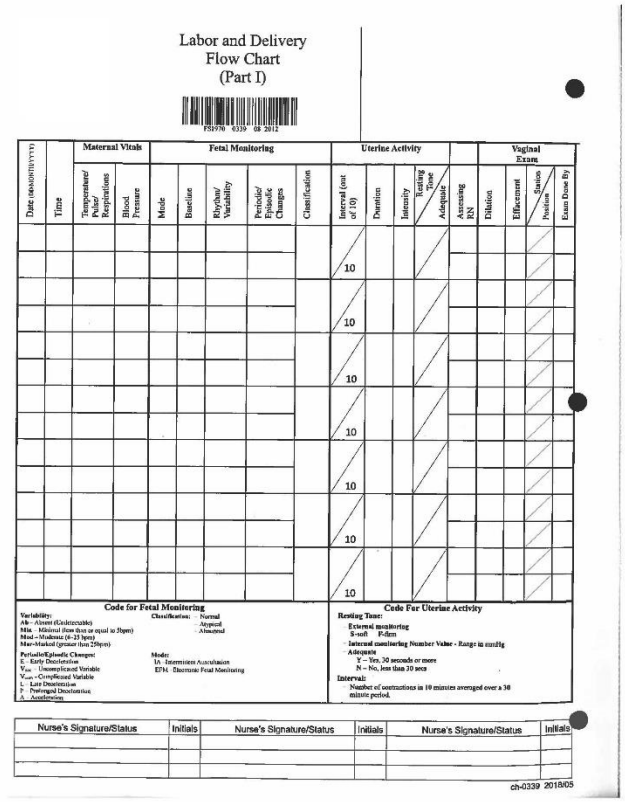
Appendix C

Sample of One Map: Textual Processes Related to Nurses' Fetal Health Surveillance



Appendix D

Partogram Flowsheet



Labor and Delivery
Flow Chart
(Part I)

FS1970 0339 08 2012

Date (MM/DD/YYYY)	Time	Maternal Vitals: Temperature/ Pulse/ Respirations	Maternal Vitals: Blood Pressure	Fetal Monitoring: Mode	Fetal Monitoring: Baseline	Fetal Monitoring: Rhythm/ Variability	Fetal Monitoring: Periodic/ Episodic Changes	Fetal Monitoring: Classification	Uterine Activity: Interval (out of 10)	Uterine Activity: Duration	Uterine Activity: Intensity	Uterine Activity: Resting Tone / Adequate	Vaginal Exam: Assessing RN	Vaginal Exam: Dilation	Vaginal Exam: Effacement	Vaginal Exam: Station / Position	Vaginal Exam: Exam Done By
									10								
									10								
									10								
									10								
									10								
									10								
									10								

Code for Fetal Monitoring

Variability:
Abs - Absent (Undetectable)
Min - Minimal (less than or equal to 5bpm)
Mod - Moderate (6-25 bpm)
Marc-Marked (greater than 25bpm)

Periodic/Episodic Changes:
E - Early Deceleration
V_{UC} - Uncomplicated Variable
V_{CC} - Complicated Variable
L - Late Deceleration
P - Prolonged Deceleration
A - Acceleration

Classification: Normal / Atypical / Abnormal

Mode:
IA- Intermittent Auscultation
ETM- Electronic Fetal Monitoring

Code For Uterine Activity

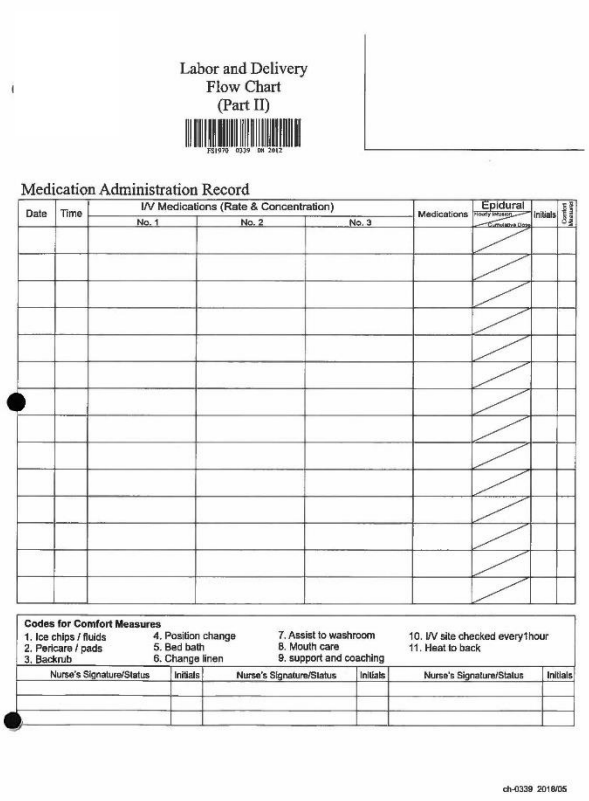
Resting Tone:
External monitoring
S-soft F-firm
Internal monitoring Number Value - Range in mmHg

Adequate
Y – Yes, 30 seconds or more
N – No, less than 30 secs

Interval:
Number of contractions in 10 minutes averaged over a 30 minute period.

Nurse's Signature/Status	Initials	Nurse's Signature/Status	Initials	Nurse's Signature/Status	Initials

ch-0339 2018/05



Labor and Delivery
Flow Chart
(Part II)

FS1970 0339 08 2012

Medication Administration Record

Date	Time	I/V Medications (Rate & Concentration) No. 1	No. 2	No. 3	Medications	Epidural (Hourly Infusion / Cumulative Dose)	Initials	Comfort Measures

Codes for Comfort Measures

1. Ice chips / fluids
2. Pericare / pads
3. Backrub
4. Position change
5. Bed bath
6. Change linen
7. Assist to washroom
8. Mouth care
9. support and coaching
10. I/V site checked every1hour
11. Heat to back

Nurse's Signature/Status	Initials	Nurse's Signature/Status	Initials	Nurse's Signature/Status	Initials

ch-0339 2018/05

Appendix E

MORE^{OB} Workshop Itinerary

MoreOb Workshop: Dates and Location

March 21: *Location*

March 28: *Location*

April 4: *Location*

April 11: *Location*

Agenda

0800-1000 Fetal Health Surveillance

1000-1015 Coffee Break

1015-1200 Graph Interpretation/Discussion in Groups

1200-1300 Lunch

1300-1400 Introducing Baby Pause

1400-1500 Communication

1500-1600 Documentation

[Coffee/Tea will be provided for break but you are responsible for your own lunch.]

Appendix F

SBAR Reporting Tool

SBAR Case Room Nurse Shift Report Guide

Situation

- Patient name:
- Date and time of admission:
- Age:
- Physician:
- Multiple birth? Yes or No
- Previous C-Section?
- Ruptured Membranes?
- High Risk? (i.e., shoulder dystocia, uterine rupture, preeclampsia, post-partum hemorrhage, etc.)
- Gestational age:
- Allergies:
- Comorbid conditions (i.e., diabetes, cancer, heart condition, etc.)

Background

- Gravida ____Para____
- GBS status:
- Relevant Lab results:
- Labour history:
    - Membranes/fluid
    - Onset

    - Contractions
    - Cervical exam
    - station
- Medications (i.e., prostaglandins, oxytocin, magnesium sulphate, antibiotics, etc.)
- Pain
- Epidural? Rate?
- IV
    - What's running?
    - Bag #?
    - Rate?
    - Site?
- EFM Tracing
- Red Alert?
- Birthing Plan?
- Stem Cell Collection?

Assessment

- Is patient progressing within normal limits with no apparent complications?
- Concerns?

Recommendation/Results

- Suggestions or requests for oncoming nurse?
- Any new orders or relevant information?