Canadian Care Providers' and Pregnant Women's Approaches to Managing Birth: Minimizing Risk While Maximizing Integrity

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Abstract

We employed grounded theory to explain how Canadian pregnant women and care providers manage birth. The sample comprised 9 pregnant women and 56 intrapartum care providers (family doctors, midwives, nurses, obstetricians, and doulas [individuals providing labor support]). We collected data from 2008 - 2009 using focus groups that included care providers and pregnant women. Using concurrent data collection and analysis, we generated the core category: minimizing risk while maximizing integrity. Women and providers used strategies to minimize risk and maximize integrity, which included accepting or resisting recommendations for surveillance and recommendations for interventions and plotting courses versus letting events unfold. Strategies were influenced by evidence, relationships, and local health cultures and led to feelings of weakness or strength and confidence or uncertainty and differing power and responsibility-sharing arrangements. The findings highlight difficulties resisting surveillance and interventions in a risk-adverse culture and the need for attention to processes of giving birth.

Keywords

Cesarean section rates are reaching or exceeding 30% in some Canadian jurisdictions (Canadian Institute of Health Information, 2009). Forty-five percent of Canadian women reported interventions to start labor; 63% reported continuous electronic fetal monitoring (Public Health Agency of Canada, 2009). The medicalization of pregnancy has developed along with sophisticated technologies of surveillance and intervention and increasing societal concern with risk (Cahill, 2001). The dominance of a risk-averse approach to childbirth has been linked to unnecessary increases in intrapartum interventions (Downe, Simpson, & Trafford, 2007). Adam and Van Loon (2000) referred to risk as manufacturing uncertainties with consequences to life in the form of potential harm, danger, or threat. When risk is transformed into embodied danger invisible threats become tangible, but risks are open to social definition and construction (Adam & Van Loon, 2000).

Health care providers vary in their views of risk associated with birth interventions. A survey of Canadian obstetricians (n = 549) indicated, compared with other maternity care providers, they held the most favorable attitudes to epidural anesthesia and the least favorable attitudes toward reducing the cesarean section rate and maternal roles in the birth process and birth plans (Klein et al., 2009). Canadian family practitioners' attitudes indicated those practitioners who provided intrapartum care generally regarded routine labor interventions negatively but home birth as inherently risky (Klein et al., 2010). In comparison to attitudes of obstetricians and general practitioners, Canadian nurses reported more negative attitudes towards intervention and less negative attitudes towards home birth and vaginal birth than physicians (Klein et al., 2009). Midwives have promoted labor and birth as normal physiological processes that require respect (Canadian Association of Midwives, 2004). In a Canadian study, midwives' attitudes indicated lack of support for intervention and strong support for alternative birth

settings to hospitals (McNiven et al., 2011). In a postal survey, Canadian doulas (n = 212) indicated their concern about overuse of birth interventions and supporting women in labor by encouraging clients to request care providers to limit interventions (Eftekhary, Klein, & Xu, 2010).

Women have mixed views about birth interventions. In a comparison of two large survey samples, Canadian and American women's reports of their birth experiences revealed both groups relied heavily on physicians for information about pregnancy and birth, slightly less than 50% experienced attempted induction of labor, and almost 100% experienced electronic fetal monitoring (Declercq & Chalmers, 2008). Despite exposure to interventions, 80% of Canadian women surveyed indicated they were satisfied with their care and more than 80% of American women surveyed rated the quality of the US maternity system as high (Declercq & Chalmers, 2008). Australian women have overwhelmingly expressed a preference for vaginal birth, but also seemed poorly informed about the risks associated with cesarean sections (Gamble & Creedy, 2001). Results from a longitudinal mixed methods study of English women suggested women's preferences for mode of birth changed over time and were influenced by various knowledge sources, e.g., care providers, family, and the media (Kingdon et al., 2009).

Debate about interventions has often been positioned as respecting women's choice (Hannah, 2004). Placing the debate about risk in the context of women's choice overestimates women's power in clinical decision-making (Cherniak & Fisher, 2008) and shifts attention from risk to women's autonomy (Hewer, Boschma, & Hall, 2009). Increased surveillance and intervention have been justified to reduce risks to fetuses and newborns but health care providers have been positioned as underrating psychological, social, and cultural determinants of their actions (Cherniak & Fisher, 2008). Dynamics among women, health care providers, and

institutional settings influence ways birth is managed (Kingdon et al., 2009; Martin, &

Kasperski, 2010; Simpson, James, & Knox, 2006). Given the dearth of studies incorporating both

care providers' and women's explanations about managing birth, it is important to understand

their perspectives.

THEORETICAL FRAMEWORK

Human action and interaction and construction of meaning are central to symbolic interactionism

(SI; Blumer, 1969). People are viewed as thinking, acting, creative individuals who respond to

the actions of others after interpreting their intent and actions (Blumer, 1969). SI also attends to

social influences (Perinbanayagam, 1985). Power, as manifested in real situations, generates and

shapes individual and social contexts or 'structures of society' (Dennis & Martin, 2005). SI

sensitizes researchers to attend to women's and care providers' efforts to construct meanings

associated with birth as they influence and are influenced by social context.

METHOD

We used Glaserian grounded theory as the study method (Glaser, 1978, 1992; Glaser & Strauss,

1967). Researchers who use grounded theory develop a core category that represents how

participants manage the central problem they have defined. The central question was: How do

care providers and pregnant women manage birth? Applying grounded theory results in

explanations of relationships among categories associated with a core category grounded in

participants' data (Glaser, 1992).

SAMPLE

We conducted the study in five large to mid-sized Canadian cities. Care providers and

nulliparous women who spoke English (or French in one city) and were actively engaged in

seeking or providing care for birth met the inclusion criteria. Current clients of participating care

providers were excluded. We began the study with purposeful sampling, by recruiting participants who could provide rich data for the topic (Coyne, 1997). As the first author developed categories from codes, she used theoretical sampling for data to further develop categories and their relationships (Glaser, 1978). Grounded theory studies do not require large sample sizes (Charmaz, 2006); small sample sizes provide potential for increasing rapport between researchers and participants and in-depth exploration of research questions (Charmaz, 2006). Researcher-participant rapport is imperative for exploring sensitive topics, such as managing birth.

The sample consisted of 9 pregnant women approaching their first birth and 56 care providers. The pregnant women ranged in age from 23 to 43 (mean = 31.7); all were in a relationships with a partner. Two self-identified as European, 2 as Canadian, and 5 as White. They ranged from 18 to 35 weeks pregnant (mean = 33 weeks). Six pregnant women had a bachelor's degree, two had completed high school, and one had a master's degree. Three women were receiving midwifery care and 6 were receiving care from an obstetrician. Two women planned to give birth at home and seven in hospital. Five women had taken prenatal classes.

Of the 56 care providers who participated there were: 16 family doctors, 12 midwives, 12 nurses, 5 obstetricians, and 11 doulas. The care providers ranged in age from 27 to 64 years (mean = 41.7) with 50 women and 6 men. The providers self-identified as White (n = 24), French Canadian (n = 5), European (n = 6), Chinese (n = 2), Haitian (n = 1), Black (n = 1), Canadian (n = 11), Vietnamese (n = 1), and South Asian (n = 1). Forty care providers were living with a partner, 9 were single, 4 were divorced, and 2 were separated. Forty-two care providers indicated they had given birth; 13 had not. Thirty-nine care providers practiced only in hospitals, 9 practiced in homes and hospitals, and 8 practiced in a combination of clinics and hospitals. To

demonstrate respect for all providers, none of the quotations are identified by discipline. All references to city names and places have been removed from the quotations.

STUDY PROCEDURES

We received permission to conduct the study from the University of British Columbia Behavioral Ethics Review Board. Care providers in a variety of cities distributed a letter explaining the study to potential participants. No ethical review was undertaken in local settings because participants were recruited by independent practitioners rather than through institutions. For example, a midwife recruited participants in one city. We reviewed the consent form with all study participants prior to the focus group interviews; all participants provided written consent to participate in the study.

We carried out data gathering concurrently with data analysis. Short demographic questionnaires and focus groups were modes of data collection. In 2008-2009, the authors completed five focus group interviews in 4 provinces, with one interview conducted by a French Canadian colleague. We held focus groups, lasting between 2 and 3 hours, in community settings and provided food for participants. The focus groups varied in composition but could include all eligible care providers (nurses, physicians, midwives, and doulas) and pregnant women. Our intent was to approximate the team providing care for women, including pregnant women who are purported to be at the center of care. Women regularly receive care from mixed groups of care providers which makes their collective data important to understanding representations of birth and how birth is managed. One focus group was conducted in French and translated into English for analytic purposes by native francophone assistants with maternity care experience.

Focus groups can provide a safe environment for exchange of ideas, where participants' beliefs and attitudes are not challenged or belittled; participants find the experience more

gratifying and stimulating than individual interviews (Madriz, 2000). Revealing group norms and values through discussion can provide insights into attitudes and opinions, as well as information about group social realities (McLafferty, 2004). Co-participants can provide mutual support in expressing feelings common to the group (Pope & Mays, 2006).

When exploring a sensitive topic, such as how to manage birth, participants might feel vulnerable discussing their personal experiences (Pope & Mays, 2006). We set ground rules in focus groups, specifically being mutually respectful, not interrupting or speaking over co-participants, and providing time for participants to fully express their views. We observed no evidence any group members were intimidating expression of ideas by others. The pregnant women were full participants and regularly offered alternative perspectives to those of care providers.

The first author developed some probing questions, which were shared with co-investigators, prior to the first interview. They included questions, such as: How do you represent birth; how have more general societal/cultural views about birth affected the ways you represent birth; what effects do your beliefs and attitudes have on your choices? She modified interview questions after focus groups to develop categories that were constructed from previous data (Coyne, 1997). Examples of modified questions included: Some participants have described being fearful of emphasizing the process of giving birth if there is any potential for negative outcomes. Does a tendency to 'play it safe' resonate with you? Women need to take ownership of what can happen as the result of one decision. How do you react to that statement?

DATA ANALYSIS

We used concurrent data collection and analysis and constant comparative analysis (Glaser & Strauss, 1967) with data from focus group interviews. The first author used open, selective, and

theoretical coding respectively to develop categories, their properties, and relationships between categories (Glaser, 1978). Writing memos, shared with co-investigators, captured ideas generated from constantly comparing, coding, and analyzing data (Glaser, 1992). The first author categorized, collapsed, and examined coded data to achieve data saturation, which occurs when no new data alter the conceptual properties of the developed categories or their relationships (Glaser & Strauss, 1967). The co-investigators provided feedback on drafts of the article. No computer programs were used in data analysis. Rigor in grounded theory is based on fit, work, relevance and modifiability. For fit, categories should fit the realities under study; work means a grounded theory explains the major variations in behaviour to deal with the main problem identified by participants (Glaser, 1992). If fit and work are achieved, relevance follows. Modifiability indicates a theory can incorporate new data that present variations in categories.

FINDINGS

Our findings begin with an overview of the core category and related categories. The core category was minimizing risks while maximizing integrity. For the pregnant women, minimizing risks included attending to their and their infants' physical safety while maximizing their integrity, which involved maintaining their ideals and values about birth. Ideals and values could include avoiding passivity by maintaining control or sharing power or delegating control and power to care providers.

> One of the reasons I am hoping to have a home birth is to avoid passivity in my birth. I don't want to be subjected to whoever's on shift and what they may think . . . I believe my provider will try to help me have the birth that I want to have at home. If she tells me I have to go to the hospital, I will believe that is important and she's not just saying that just to be safe.

Care providers were also trying to minimize risks while maximizing integrity. Minimizing risks involved attending to women's and infants' physical health along with care providers' sense of psychological risk while maximizing integrity was about adhering to personal beliefs and principles. Some care providers linked their integrity to their skills to manage birth. "I know the care I am capable of giving. I give a 110% to whatever aspect of the job I am doing and fear does not play a role for me whatsoever because I am confident in my skills." Other care providers viewed their integrity as tied up with women's integrity, with attention to the birth process and less emphasis on risk. "As the professional, if you perceive birth as normal, you will allow the woman to birth using her natural rhythm and what she possesses and her own decision-making to carry on the birth, because she is the expert."

For some of the women, maintaining integrity involved resisting efforts by care providers to use surveillance and interventions. When women emphasized their integrity they acknowledged increasing the risk their behavior would be criticized by others for threatening their fetuses' safety. "I do have the decision to decline certain tests that are offered, but there's also this pressure. If something is available, it is something you should get to be a good mother? To decline something maybe you're making a mistake." For other women, maximizing integrity involved accepting providers' recommendations for surveillance and interventions. They relied on their providers to ensure safety and did not emphasize control and shared power. "I haven't had a problem with the level of surveillance or monitoring because I need those checks and balances. It's ensuring they're watching and taking care of my baby all along the way."

Some pregnant women described reducing risks to physical safety and maximizing integrity by planning a birth at home; other women reduced risks and maximized integrity by

relying on technology in a hospital setting. The women viewed birth as affecting their integrity differently. Some indicated respecting their birth processes was central to maximizing their integrity. They wanted space for their birth events to unfold. "It makes me feel better to be able to be empowered with the decisions and to be able to have the kind of birth that I want." Other women regarded integrity solely as staying safe and producing a baby who was physically safe, by relying on health care providers. "I'm very grateful to be able to bring a child into the world and I'm not going to be able to do that without caring and knowledgeable professionals around me. It's for my health and my baby's health."

The care providers' definitions of psychological risk varied. Some providers regarded birth as an essentially normal process and felt minimal risk in supporting that process. Their primary emphasis was on sustaining women during labor and birth and advocating for them and their families. They resisted standard recommendations for surveillance and interventions but worried about being criticized by other providers.

> I leave the locus of control with the woman and her family . . . I might make recommendations but they are making the decisions. It makes you a bit more vulnerable because you are not doing what is the norm which is telling patients what to do and then they agree.

Other care providers viewed birth as an inherently risky process. Their psychological risk was reduced and integrity was increased by embracing surveillance techniques and related interventions, which could prevent negative outcomes (unhealthy mother and baby) from occurring. "It's about the appropriate use of technology. Women have done this forever naturally

yes but women have also died in labor naturally for many centuries . . . We don't want to lose what we have now."

To adhere to principles and beliefs about birth and maintain integrity, some care providers resisted negative reactions of colleagues, peers, and the system. They trusted in the normality of birth and let birth events unfold.

> We trust normality and we want to support the physiology, but at the same time, we have an aversion to risk culture. Our colleagues and guidelines are not very flexible. My decision applies to that particular woman. It's not easy for me.

When providers' integrity was enhanced by being regarded as a good practitioner by colleagues, peers, and the system their integrity was more susceptible to others' views of their competence and surveillance of their activities. They minimized their psychological risk by plotting courses to reduce possible negative outcomes. "The fear of litigation overwhelms the ability to have a proper process and dictates the terms of decision-making during the process. People are afraid of what everyone else is doing and need to establish protocols and rules."

As outcomes of using different strategies to minimize risk and maximize integrity, pregnant women and care providers experienced feelings of weakness or strength, confidence or uncertainty, and differing amounts of shared power and responsibility. One of the pregnant women commented:

> How am I going to bring (birth) the perfect child? . . . It's that expectation of the perfect child. We don't want to take responsibility. So that's where we become vulnerable and start giving away our power, because we want others to be responsible. So, if there is a problem or if something happens, we have someone to blame.

A care provider also commented on the potential outcomes that could arise from relying on surveillance and interventions, with a lack of shared power and responsibility.

> With a bad outcome or loss, somebody's going to have to be blamed. A lot of women do think of their care providers as gods. They will make things right and often are afraid to go against what their determination is and now they are to blame.

CONTEXT FOR MINIMIZING RISK AND MAXIMIZING INTEGRITY

The women and care providers came together to minimize risk and maximize integrity in the context of relationships, the evidence, and local health care cultures.

> *Relationships.* The women and care providers described varying levels of trust in their

relationships. In longer term relationships more trust was established, women and care providers felt better informed, and power and responsibility were more likely to be shared. One of the pregnant women said: "If you are seen for 5 minutes once a month there's no personal relationship there. The person is more likely to be sued . . . It's the trust and respect and being heard that make a difference."

Care providers described longer term relationships as reducing their sense of psychological risk and increasing shared power and responsibility because they knew pregnant women and their families and had a sense of what they valued. "I think (when) you've known the couple for longer you're coming into the situation knowing them on a more personal level. Meeting someone in labor is vastly different than meeting someone during prenatal care."

Although trust increased with open communication and shared control, some care providers described open communication as telling women what to do while pretending women had control. "It's a lie we're giving our clients control. It's really we still have control. They can

pretend they have control but we're just doing that to be nice as practitioners and really we are supposed to keep control." Others care providers who believed control rested with women used open communication about risks and benefits to minimize risk and maximize their integrity. "I've been told, 'You have a bad outcome they'll sue your pants.' I believe, if you have been really open and honest and laid your vulnerabilities on the table, people will respect you and have respect for their own choices."

The care providers who described leaving control with women indicated their relationships involved attending providing women with information and freedom to make choices. "Giving the information, empowering the patient to participate in making that decision will be a much more positive outcome, knowing the choices, the pros and cons. No one has got the right answer."

The pregnant women linked trust for care providers to them listening to their questions and concerns and attending to their fears and worries without adding to them. "I'm doing all kinds of things to educate myself about it (birth) . . . I feel the ability to talk with my provider and just have the time to discuss what may be going on." The women also needed to consider relationships with family and friends when trying to maximize their integrity while minimizing risk. Family and friends could ostracize women and undermine their sense of integrity if they were not complying with recommendations for surveillance or interventions and were perceived as increasing risks to themselves and their babies. "My family thinks I am crazy for making the choices that I am."

Evidence. Providing evidence entered into relationships between women and care providers. Some care providers acknowledged their presentations of evidence suited the message they wanted to convey. "It's all in how we put it. The providers take evidence, weave it around,

and roll it around in a ball. It's silly putty. We turn it into what we want it to be." Other care

providers indicated pregnant women, after being provided with evidence, wanted them to make

decisions rather than making their own. "You lay out the risks and benefits and they don't know

what to do with it. They're totally baffled. Well what do you think I should do?"

Some of the women resisted going with the evidence because they believed birth was

natural and they should trust their bodies. At the same time they were aware questioning

evidence could undermine their integrity by calling into question their responsibility as mothers.

"The weight on my shoulders is to trust me and my body or believe what I know from the studies

that have been done. If I don't get this is it irresponsible as a mother? Why risk it?"

Some women questioned the clarity of evidence by challenging the use of statistics and

some of the claims.

> I know there is this statistic that if you go this long there a one in a thousand chance my
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> baby will be a stillbirth but what about the other statistics that I am not aware of - one in a
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> thousand relative to what? When people start to throw stats and science at you, you can
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> start to challenge that with, if I have a one in one thousand risk of this, what's my risk if I
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> do have an induction?

Local Health Care Cultures. Local health care cultures not only affected the nature of

relationships among care providers and women but also women's and care providers' comfort

with using strategies. When practice models supported collaboration, there was more open

communication, trust, and attention to both mothers' and care providers' integrity. It was easier

to resist standard recommendations for surveillance or interventions and to let events unfold. One

care provider reflected on a program in a practice area.

The program is a very positive thing. It's brought us all to common ground. I feel a much

more positive surveillance as opposed to I am checking up on you to make sure you're

doing the right thing and for the patient. We are working as a team to help each other.

In care environments where there was conflict and defensiveness, integrity was

undermined and there was an enhanced sense of risk. Care providers felt surveillance from peers

created a need to plot and document every step. "It is sad that we are hearing we have the same

ideas and ideals. When we get to our work environment it seems we are forgetting them because

we are judgmental, on a warpath, on the defensive."

Care providers linked practice environments with strong leadership to resisting uncritical

adherence to provincial, national, and international guidelines and emphasizing women's

integrity more than perceived risks to fetuses' physical safety.

We're known to be more tolerant here about post-date pregnancy and managing

expectantly women who are over due - to the extent of being national pariahs in this area.

We've got some very strong leadership here . . . It's okay to tolerate a small extra risk for

the benefit of recognizing the process.

STRATEGIES FOR MINIMIZING RISK WHILE MAXIMIZING INTEGRITY

To minimize risk and maximize integrity, women and providers used varying strategies

depending on their assessment of risks and definitions of integrity. They accepted or resisted

recommendations for surveillance and recommendations for interventions and plotted courses

versus letting events unfold.

Accepting/resisting Surveillance and Intervention. Some women resisted recommendations for surveillance and intervention for fear of decreasing their integrity during the birth process.

> You were the subject of tests and a lot of actions mothers are supposed to do very passively. You are passively taking instructions from health care providers. I think part of the vulnerability that comes into birth, having not done it (yet), more severe medical interventions that have been par for the course have encouraged a more passive birth.

Other women accepted recommendations for surveillance and intervention because it reduced their fears that birth would not be possible for them. "I feel it more as facilitation that my body can do it. I feel things like Pitocin and an epidural that facilitate the process (are necessary). I can't do it. My body needs something else to actually do it."

> Care providers could regard surveillance and interventions as protecting them from colleagues and reducing their psychological risk for having their practice and professional integrity questioned.

> I think there's vulnerability in allowing people to decline tests that are pretty normal. When you put the decision on the woman and she declines things that may not change the outcome, but are considered routine, then it makes the care provider vulnerable to other care providers who may be involved.

For care providers who trusted women and birth, their integrity was sustained by resisting surveillance and interventions. Nonetheless, care providers described the tension associated with valuing women's integrity as well as their own psychological risk and integrity.

Care providers are vulnerable because they have a responsibility of taking care of a

vulnerable person. The line is often very thin between how you can guide the person and

where you need to intervene. Because when you intervene, you can also cause problems .

. . If you trust the women who give birth, you don't have the same worries.

Plotting Courses Versus Letting Them Unfold. Women and care providers varied in their

approaches to birth. Some described both increasing their sense of integrity and reducing risk by

having courses predetermined. Others described de-emphasizing risk and increasing their

integrity by letting events unfold.

Some of the women felt the difficulty with letting events unfold was that it represented

their responsibility for making choices. They indicated when providers shared information in

ways providers viewed as empowering the information could undermine the normalcy of the

process. One woman said:

They really want to inform you but they're always saying, 'I'm not making this choice

for you. You have to make it yourself', which is great and empowering. I would just hate

it if a care provider said 'Well we're doing this to you' but it's not an easy spot to be in

when you really want to believe in the process but you have things that tell you maybe

you're not meant to go through that process.

A birth plan was described by one woman as her thoughts about how she would "like her

birth to go". She did not want it interpreted as a "demand" for how her birth had to be. She was

concerned that expressing her wishes through her plan might be regarded as "telling the care

providers what to do". She indicated: "It's just how I hope things will go and you obviously do not know what's going to happen and you just react at the time".

Most of the care providers struggled with the implications for their integrity arising from plotting courses versus letting events unfold. Some providers were frustrated by standards because of lists of reasons to intervene. They described following "the letter" and relying on interventions unsupported by evidence to prevent one complication in a thousand.

> Many of my frustrations come from standards. They strongly suggest intermittent auscultation. There is a list of so many anomalies and risks where we have to do the (continuous) monitoring, if we follow that to the letter, 80% of women are monitored. The evidence does not really support it. If we don't do it and something happens, we'll have problems.

Providers who did not plot a course expressed concern their peers and patients might hold them responsible for any poor outcomes. Plotting a course provided proof the providers had maintained their integrity and minimized risks. Alternatively, plotting a course could serve to create space for providers to intervene because there was potential for a problem but intervening could undermine mothers' integrity. The planned course could enhance providers' sense of power and control while undermining women's confidence, power, and responsibility. A provider described it this way:

> These moms and babies can be exceedingly healthy. They're not outside the norm necessarily. Can you sit on your hands or do you have to do something? It's not necessarily a complication, but there's an incredible amount of potential. Even though

we're still within the normal, you're starting to become atypical. There's that sense we need to remap that situation, call it "abnormal," and therefore we're allowed to intervene.

OUTCOMES ASSOCIATED WITH MINIMIZING RISK WHILE MAXIMIZING INTEGRITY

Outcomes for women and care providers who used strategies to minimize risk while maximizing integrity were to view themselves as strong and in control versus weak and passive, confident versus uncertain, sharing power or losing power, and sharing responsibility for outcomes or assuming all of the responsibility.

One pregnant woman regarded feeling strong and in control around giving birth as a reasonable expectation. She indicated the sense you can do it arose from being active and in control and resisting recommendations for surveillance and interventions. "After spending 9 months growing a baby you want to be able to go and give birth to a baby yourself and not have that taken from you. You want to maintain the control of being in a situation where you feel comfortable. If you feel comfortable, you know you can do it."

The pregnant women had difficulties with accepting responsibility for outcomes while receiving implicit promises that available technology could create good outcomes. They linked giving up power and accepting surveillance and interventions to assigning responsibility for poor outcomes to others. "I wonder if women are given a false sense of security with all this technology. You're assured not to have bad results and if you do have bad results then it was something your provider did so you blame them." One woman described viewing herself as active, confident, sharing in decision-making, and reframing interventions based, in part, on

trusting her care provider. "When I looked at my options the cesarean section was the easy way to go but now I envision it as a last recourse . . . I trust my care provider."

Outcomes for pregnant women were not entirely straightforward. One mother described exerting control, making decisions, and being confident to resist surveillance but giving up her position when she was threatened with loss of care.

I was really stubborn about getting my first ultrasound. Basically I was scared into it by my provider for legal reasons. She said, 'Well, the other care providers in the group could refuse you service, unless they have procured documentation' . . . So I'm going to give birth on the front steps of the hospital because they've rejected me from the maternity ward for having not collected the proper information.

Outcomes for care providers varied as consequences of using different strategies to minimize risk while maximizing integrity. Depending on perceptions of risk and reliance on surveillance, interventions, and plotting courses to manage risk, care providers viewed themselves as strong or weak, confident or uncertain, sharing power or holding on to power, and sharing responsibility for outcomes or taking total responsibility.

Care providers who relied on surveillance and interventions and plotting courses that emphasized risk were more likely to exert their control and feel strong through minimizing women's power and control and, ultimately, their integrity. Some care providers talked about "pulling the dead baby card" when their need for control and power was more important than women's control, whether or not the baby was at risk. "I've heard that. 'Well, you don't want your baby to die, do you'? We call it pulling the dead baby card. We really want you to do this thing . . . Some were for things that were not life or death situations."

Other care providers took strength from facilitating women's integrity as well as minimizing risk to mothers' and infants' physical safety. They described feeling confident to share power and responsibility with women and resist unnecessary interventions.

The minute she (mother) walked into the hospital, because of meconium, they force(d) her to have everything. You could see she was fearful. She told her husband, 'I really don't want the epidural'. I had to stay with her. When there is a person who has knowledge, somebody (who) says, 'Everything is in control now. Let's focus on what you want'. She delivered half an hour later with no epidural. She was very happy. I had to be in that room, because at the end of the delivery . . . she will say, they forced me to do that.

Some care providers found it difficult to maintain their integrity and minimize risk through sharing responsibility because they believed they were ultimately responsible for outcomes. They put their trust in using surveillance and interventions, while minimizing women's responsibility, power, and confidence.

We have rules and regulations we need to follow . . . We have all this knowledge of what we've been taught to do in case something happens. If you're on the fetal monitor continuously, it's been proven most of the time you end up with more interventions because we have to record it. If we don't do something about it, we can be blamed. We can be sued . . . We're vulnerable to our fears because we tend to intervene maybe sometimes too soon. We've lost confidence in nature and the body and we rely more on the technology.

Care providers who regarded themselves as solely responsible regarded the birth process as flawed. They could not allow events to unfold or share power. The psychological risks were too high for any negative outcomes to undermine their integrity.

> We moved to believing that women and their partners should be involved in the decision-making but there's the whole piece about litigation . . . The care provider knows in the end they're responsible because, if there is a decision to be made, it's them who are held accountable. It puts so much pressure on providers and makes us afraid to trust that the women themselves can be involved in the decision-making during the birth process.

In summary, both pregnant women and care providers manage birth by trying to minimize risk and maximize their integrity. Risk and integrity can be defined differently in the context of relationships, evidence, and local health care cultures. Pregnant women and care providers use varying strategies to minimize risk and maximize integrity. The outcomes can include integrity for both or integrity of one group can take precedence more than others' integrity. Women and/or providers can experience strength or weakness, confidence or uncertainty, and shared or unilateral power and responsibility. The findings will be discussed in the context of the literature and conclusions identified.

DISCUSSION

The core variable of minimizing risk while maximizing integrity illuminates complex considerations of risk that are influencing women's and care providers' decisions in managing birth. Beck-Gernsheim (2000) argued translating probabilistic scientific statements into certainty about risk gives transcendental significance to a well-functioning body. Using technology during

pregnancy and birth is accompanied by an implicit promise that risks can be managed to provide the perfect child (Nippert-Eng, 1996).

The core variable illustrates the variation in meanings attached to integrity and risk. For the pregnant women, ideals and values could include avoiding passivity and maintaining control and sharing power or delegating control and power to care providers. Kringeland and Moller (2006) indicated security and protection are often sought by women in medical control of the birth environment. Kornelsen (2005) argued, for women in her study, a lack of agency or loss of control during pregnancy and birth could lead to women's alienation.

The women in this study indicated avoiding passivity and trying to maintain control and power attracted criticism and blame from others, which undermined integrity. Beck-Gernsheim (2000) maintained women's failure to take up options can brand them as irresponsible. Three kinds of risk arise for women in processes of medicalization of pregnancy and birth: perceived medical risks, iatrogenic risks from medical practices, and moral risks from resisting authoritative knowledge (Horton-Salway & Locke, 2010).

For care providers, meanings for integrity and risk also varied. Personal beliefs and principles were embedded in risk-sensitive or risk-resistant cultures of maternity care. McKenzie Byers and van Teijlin (2010) suggested it can be difficult to separate objective and subjective risk because clinical maternity care relies on practitioners' data gathering, interpretations, and actions. The care providers' strategies can also be considered in terms of perceived risks, iatrogenic risks, and moral risks. Some recognized the potential to create risk by using surveillance and interventions along with the risk of being viewed by colleagues as incompetent by refusing to act. Cherniak and Fisher's (2008) claim that birth is treated as inherently risky because atmospheres are regularly those of expectant disaster fits with challenges care providers

encounter when supporting women's process and integrity rather than focusing on the promise of physically healthy mothers and babies.

The pregnant women's efforts to maximize their integrity while minimizing risk were influenced by family, friends, and relationships with care providers. Pregnant and parenting women in a Canadian study concurred with our findings because the level of support they received from their families affected whether they welcomed intervention related to childbirth (Fox & Worts, 1999). Skirbekk and colleagues (2011) referred to patients' expectations and trust varying with the nature of the relationships with physicians.

Comments in our study about the importance of long-term relationships, where trust and open communication were established between care providers and women, contrasts with many practice patterns wherein women and care providers are unfamiliar with each other. American and Canadian women choosing care providers have referred to the importance of having time to talk together (Howell-White, 1997; Janssen et al., 2009).

In this study, ways in which evidence was presented was described by both women and care providers as problematic. Care providers indicated they could manipulate evidence and women indicated the evidence provided was not always complete. Wakefield and colleagues (2007) argued for incorporating evidence-based care in guidelines, protocols, and care paths to provide quality care without acknowledging evidence can be presented to patients in ways that support care providers' preferences. Our findings emphasize how personal values and bias can affect providers' presentation of evidence. Hovey and colleagues (2011) also suggested practitioners critically reflect on their capacity to listen, and the influence of their beliefs, values, and practices on patient-centered care, particularly in the context of an overreliance on evidence-based practice tools and best practices to guide complex patient interactions.

Care providers who worked in settings where practice models supported collaboration reported less fear of surveillance from colleagues and team members. This finding is echoed by a Canadian consensus workshop that accentuated the need for maternity care providers and consumers to develop cultures of quality, cooperation, and collaboration that recognize and support all care providers (Martin & Kasperski, 2010).

The pregnant women varied in their needs to feel strong, confident, and in control and to share power for their pregnancies and births because some feared being held responsible for their outcomes. Fox and Worts (1999) indicated control during birth can mean control over decisions, being rational and aware, keeping on top of the pain, or having providers meet needs and provide ample support. Cherniak and Fisher (2008) referred to women who refuse to comply with surveillance or advice being viewed as irresponsible and lacking rationality. The pregnant women in this study risked being held morally responsible for resisting authoritative knowledge (Horton-Salway & Locke, 2010).

Care providers in this study described strategies to minimize their risks and maintain integrity which demonstrated more or less reliance on surveillance and interventions and claims of ultimate responsibility for outcomes. Little et al. (2008) noted access to low intervention birth is being challenged by institutional policies, liability pressures, and practice patterns. Lyerly et al. (2009) argued following evidence-based recommendations is too often replaced by "better safe than sorry" which is counterproductive when its application is insulated from evidence.

CONCLUSION

Care providers and women manage birth by minimizing risk to desired outcomes and maximizing integrity. Reliance on authoritative knowledge can privilege care providers' integrity while minimizing women's integrity. Relationships, collaboration, shared power and control,

attention to use of evidence, and strategies for resisting the risk discourse are central to managing pregnancy and birth. Sensitivity to how women and care providers define risks and integrity can improve outcomes for mothers, infants, and care providers.

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