University of Alberta

Representations of Aboriginal Women in Pregnancy Information Sources: A Critical Discourse Analysis

by

Chantal Ritcey

A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of

Master of Library and Information Studies

Library and Information Studies

Fall 2010
Edmonton, Alberta

Examining Committee

Lisa Given, School of Library and Information Studies

Heidi Julien, School of Library and Information Studies

Cindy Jardine, School of Public Health

ABSTRACT

The goal of this study is to critically examine health information sources in order to determine whether Aboriginal women are represented in these resources, and if so, how they are being presented. This research is intended to illuminate the practices around the construction of information, and to demonstrate that the manners in which information is conveyed can be problematic. To accomplish these goals, critical discourse analysis was utilized to explore both consumer health publications available to pregnant women in Edmonton, Alberta, as well as academic publications available to students and healthcare providers through the University of Alberta Libraries. Through this critical analysis of these resources, it is clear that information is being constructed in a manner that supports neocolonial practices and reinforces negative stereotypes of Aboriginal women. The analysis of these sources also demonstrates ways in which information can be constructed more appropriately, to avoid racializing tendencies.

ACKNOWLEDGEMENTS

I owe a great deal of thanks to a number of people who have helped me to achieve this goal. First and foremost, to my wonderful husband, Robert – you have been my rock. Your support and encouragement have meant the world to me, and none of this would have been possible without you and your unflagging faith in me. I truly believe that with your love and support, we can achieve all of our dreams. Thank you. I love you.

To my wonderful boys, Aidan, Liam, and Seamus, you continue to inspire me to reach for my dreams and to be a risk-taker. Thank you for believing in me, and for compelling me to realise my dreams.

I would like to thank Dr. Lisa Given, who was always there to support me when things were not going as planned, who helped me to realise that research projects do not always necessarily follow their projected path, and that a tremendous amount of learning can be achieved nevertheless. I would also like to thank Dr. Heidi Julien, who always made herself available to me whenever I needed to talk things through, and who offered me some very valuable insights that enabled me to navigate this process more smoothly. I also wanted to express my gratitude and admiration to Dr. Cindy Jardine, whose work with Aboriginal communities inspired me to continue my research in this area, and whose warmth and compassion helped me through some challenging times in my own research. I was very fortunate to have such a wonderful team guide me, not only through my research, but also through some very important life decisions. Thank you for demonstrating to me the meaning that can be achieved when you follow your passions.

Through this entire process, I have been surrounded by the support and faith of my family and friends, to whom and for whom I give thanks.

TABLE OF CONTENTS

Appendix I

Appendix II

Appendix III

List of Tables

List of Figures

CHAPTER ONE

Introduction

The field of Library and Information Science is one that is very much concerned with the concept of access to information, and recognizes that there are many factors that can impact an individual's ability or desire to search out information (see Case, 2007). Access to health-related information is particularly crucial, as it can affect an individual's life in very real and concrete ways. Health information seeking behaviours have been the focus of several studies (see McKenzie 2006; or Davies and Bath 2002, for examples), but one aspect that can affect health information seeking behaviours and the behaviours of individuals providing health related information is the power-dynamic that frames many publications. For example, documents published by health-care providers, hospitals and government health agencies send particular messages about the nature of illness and health, compared to publications written by patients, caregivers or other health consumers. Understanding that power relationships and other social experiences of health often allow certain discourses to dominate the public consciousness is important because it can help to illustrate why some portions of the population may be harder to reach with pertinent information, and that the means in which information is disseminated is not always necessarily appropriate for all audiences. "Given our postmodern understanding of the world, we also have to ask questions about knowledge and power. Who controls knowledge? Where in society is special knowledge located? How is new knowledge integrated into an existing system of ideology? We might also be interested in how philosophical knowledge is acted out in ceremony and in the activities of priests, medicine people, and other intellectuals" (Newhouse 2004, 148). This is a topic that is beginning to receive more attention in the field of Library and Information Studies (see Olsson 2009), as research continues to shift from a more systems-focused approach to one centred on the individual information searcher and his or her interactions with information.

The health information seeking habits of pregnant women is one topic that has received a substantial amount of study in the field of Library and Information Science, as well as in the Health Sciences (see Mackay and Yager Smith 1993; or Szwajcer et al. 2005for examples). The study of information behaviours focuses on the manner in which individuals determine their information requirements, interact with information, including actively seeking it out, delaying any active information seeking, or actively avoiding information, and how they then use that information (Fisher and Julien 2009, 317). Research in this area also examines such aspects as choice of source, affective factors, possible internalization of information, and aspects of personal motivation for individuals' information behaviours (see Lee et al. 2008; or Wathen 2006, for examples). Research regarding health information behaviours has focussed on such specific topics as cancer (see Ziebland 2004), uterine fibroids (Ankem 2007), as well as general health needs (Brown et al. 2002), and pregnancy (McKenzie 2006). Information behaviours around preconception, pregnancy, and delivery not only assist women with their abilities to make informed decisions, but access to information is also empowering for women, as it enables them to assume a more active role in their healthcare choices. "Women have been encouraged to learn all they could about their bodies, the possible treatments for particular conditions, side effects, and contraindications. Women's health activists have argued that giving women knowledge is also giving women power" (Rushing 1993, 58). So, while women may be externally motivated by this encouragement to actively seek out information pertaining to their own health (which can be empowering), it is important to note, however, that this knowledge is framed within the paradigm of Western science; for that reason it may not be reflective of other epistemological positions, particularly Indigenous Knowledge practices or Eastern epistemological paradigms. This may be because "'Western' knowledge production as a derivative of positional superiority always portrays the West to be superior to the 'Other'" (Shahjahan 2005, 220), but this positional superiority may cause information to be framed in such a manner as to make it inaccessible or unacceptable to women who subscribe to other epistemological positions.

The emphasis on the research pertaining to this particular type of health information need is understandable, as it is widely recognized that pregnancy will typically generate increased information needs for the expectant woman, and that having appropriate access to information affects not only the health of the mother but also that of her unborn child (see Levy 1999 or Singh et al. 2002, for examples). Within this area of research, particular attention has been paid to the information needs of minority women, and whether or not the dominant culture can meet those information needs (see Davies and Bath 2002, or Berman 2006). This research points to the recognition that factors such as one's social status, comfort with the dominant language, and access to the resources necessary for gathering information can all act as barriers when minority women are trying to locate information during pregnancy. As well, recognizing that pregnancy, childbirth and child-rearing are culturally-mediated events, particular attention should be drawn to whether or not publications are addressing particular cultural norms, or just reflecting back the dominant cultures' standards.

The manner in which information is constructed or presented can impede an individual's ability or willingness to interact with a particular source of information, which can impede an individual's access to health-related resources; this may cause individuals to feel dissatisfaction with the healthcare services that they receive, or to lose confidence in their healthcare providers (O'Neil 1989, 327). Within a Canadian context, there has been an abundance of research examining issues of health inequalities or disparities. "In Canada, Australia, New Zealand and the US, inequities in access to health care and outcomes for indigenous people have been well-characterized. To close these gaps, we need to document disparities and understand their causes more precisely and make collaborative changes" (Peiris, Brown and Cass 2008, 986). It is important to recognize that one of the factors influencing these health inequities may be related to how information is presented to Indigenous peoples, as well as what (and how) information is relayed to the healthcare providers who work with Aboriginal communities. It is important to acknowledge and explore the manner in which these discourses are framed, as this may affect how healthcare providers and Aboriginal women view and interact with one another.

Research Problem

The goal of this study is two-fold: firstly, to examine the literature pertaining to information seeking behaviours during pregnancy and to Indigenous Knowledge; and secondly, to examine whether women from Aboriginal cultures are represented in health-related information pertaining to pregnancy and new motherhood, and if so, how they are being depicted and whether understanding of Indigenous Knowledge is being incorporated into pregnancy publications. Within this study, the term “Aboriginal” is intended to represent women from Canadian First Nations, Métis, or Inuit cultural groups. It is important to note that this thesis is written from the perspective of a member of the dominant ‘Western’ culture, which frames general social discourse in Canada; this dominant culture is that element of society which has privileged access to such resources as wealth, education, social inclusion, status and influence (van Djik 1993, 254). Within a Canadian context, the dominant culture is composed largely of the descendants and beneficiaries (of whom I am one) of the European explorers and settlers who colonised this nation and imposed their structures on the Aboriginal inhabitants of this land. I do not seek to claim Aboriginal status, but rather, to better understand my own culture’s interactions with Aboriginal peoples, and how we might incorporate what we have learned from Indigenous scholars in order to better meet the information needs of pregnant Aboriginal women.

When women become pregnant or have a newborn to care for, their information needs can be substantial. These needs may relate to changing nutritional requirements during pregnancy, to potential complications that may arise, to what to expect during labour and childbirth, or to infant-care practices. There is a great deal of literature related to evaluating women’s information seeking behaviours during pregnancy (see Aaronson et al. 1988, or Chezem, Friesen and Clark 2001, for examples), as well as a huge body of literature targeted more specifically towards healthcare providers which relates to specific health concerns during pregnancy (see Giroux et al. 2009, or Tough, Clarke and

Cook 2007, for examples). How women from various cultural groups are represented within these bodies of literature can be very revealing, and it is important to recognize that the manner in which this information is presented can impact a woman's ability or willingness to access and incorporate that information into her daily life practices.

While much research has been conducted in the field of women's information seeking behaviours during pregnancy (Benn et. al.1999, Singh et. al. 2002 or McKenzie 2006) little has been done in a Canadian context to explore the variations that may exist in the information habits of Aboriginal women. By examining the literature related to pregnancy information seeking behaviours among Aboriginal women and women from other cultures, a general understanding of some cultural differences in information seeking behaviours can be achieved. Additionally, by examining the sources of information available to pregnant Aboriginal women and to healthcare practitioners dealing with Aboriginal women, insights can be gained into how these women are represented in the literature. Discourse is a powerful tool that can be utilized in many different ways, and as David Newhouse states, "Post-colonial Indians understand the nature of power and the way in which it flows to create realities" (2004,142). These representations are a form of power, which will help to shape the manner in which Aboriginal women are treated by healthcare professionals, as well as affecting how women react to the information they are given.

Access to information is necessary for a sense of agency and self-determination, especially when negotiating boundaries of power within a medical setting. This is especially true where pregnancy and reproductive health are concerned. Rushing states that "[t]he right of women to control their reproductive lives has been a fundamental concern of the contemporary women's movement in both Canada and the United States; reproductive freedom has been deemed central to women's ability to be truly liberated" (1993, 57). Reproductive freedom cannot be achieved without the knowledge necessary to make informed decisions, and currently much of that knowledge is being produced by the dominant culture for members of the non-dominant Aboriginal cultures. An examination of this produced knowledge is therefore necessary in order to explore whether the information is accessible to and inclusive of Aboriginal women, enabling them to achieve reproductive freedom; similarly, if that information is couched in the language of dominant cultural experiences, this may limit Aboriginal women's access and thereby their ability to control their reproductive lives.

It is important to note that this study will focus on Western scientific knowledge production practices directed towards Aboriginal peoples, rather than seeking to appropriate Indigenous knowledge practices for Western purposes. This paradigm shift is in alignment with the focus called for by Indigenous scholars such as Patricia O'Riley, who writes:

> Changing the angles of the western gaze from arrogant and self-referential reflections to more modest and shared research practices might invite and embrace a diversity of knowledge communities, and stimulate disruption and shapeshifting of research on Aboriginal and other "othered" communities toward a more equitable, habitable, and sustainable world for all people and other living things with the environment (2004, 90).

This research is designed to "embrace a diversity of knowledge communities" and to recognize the fact that Western scientific knowledge production practices may not currently lend themselves well to other ways of knowing. It is also an attempt for me, as a researcher, to undertake research within my own community, understanding how the dominant culture (of which I am part) uses discourse to maintain its position of supremacy, acknowledging that this manner of constructing information is counter to the universal access to information that our profession recognizes as being vital to a democratic society, as expressed within the Canadian Library Association (CLA) Values Statement on their website (CLA 2008, under "Our Mission, Values & Operating Procedures").

Research Objectives

This study was designed to explore three distinct bodies of literature. Firstly, through an extensive review of the literature related to information seeking behaviours during pregnancy, I explore the types of information that pregnant women typically seek, and what cultural norms (including the dominant

‘Western’ culture, as well as others) are represented. The publications related to information seeking behaviours were examined to determine whether Aboriginal women were represented, as well as how other cultural groups were represented, as there may be some areas of overlap among different cultural traditions. In conjunction with this body of literature, any publications regarding Indigenous ways of knowing were also examined, as there are many publications that demonstrate the differences between Aboriginal and Western epistemological practices. It is important to recognize that Aboriginal women’s information seeking behaviours may be shaped by their own experience with traditional Indigenous ways of knowing, as well as by their experiences within mainstream Western society.

Once informed by this primary stage of research, I then embarked on the second phase, namely a critical discourse analysis of pregnancy-related health publications. These publications included both consumer health publications written for pregnant women and their families, as well as scholarly publications written for the healthcare providers who would provide care to these women. These publications were examined to determine whether Aboriginal women are represented, and if so, how they are portrayed. Critical discourse analysis recognizes that those who are in power control the manner in which information is produced and disseminated, and that these practices can serve to reinforce unfair social practices. Critical discourse analysis is a methodology that has been employed by other researchers within the field of Library and Information Science, recognizing the importance that discourses play in shaping overall information seeking behaviours (see Given 2002 or Haider and Bowden 2007). The analysis of these the published literature as well as the healthcare publications explored the following questions:

- What type of information do women seek over the course of their pregnancies? At what point in their pregnancies do women begin looking for information? Are there any recorded differences in the information seeking behaviours of women from different cultural backgrounds? How do Indigenous ways of knowing differ from

Western epistemological positions, and might these differences translate to different information seeking behaviours for pregnant Aboriginal women?

- Are Aboriginal women represented in consumer health publications made available to pregnant women? If they are represented, how are they depicted in these publications? Are there any patterns in how Aboriginal women are represented based on who is controlling the publication of the material?
- Are Aboriginal ways-of-knowing or Indigenous Knowledge represented in any publications?
- Who controls the publication and dissemination of the consumer health materials sampled?
- Are Aboriginal women represented in the medical scholarly literature that health-care providers would access; if so, how are Aboriginal women portrayed, and who controls those portrayals**?**
    - How could these representations inform practitioners' future dealings with pregnant Aboriginal women?
- Additionally, are women from other minority cultures represented within the consumer health publications, and, if so, how do those representations compare to those of Aboriginal women?

These research questions frame the analysis of the available health publications, to serve as a basis to inform the production of future publications. It is important to ensure that any information publications are constructed in a culturally appropriate manner, and if the non-dominant culture does not participate in the publication of the materials intended for their consumption, this can be difficult to achieve.

Critical Discourse Analysis and Postcolonial Theory

This research uses a critical discourse analysis framework and is heavily influenced by postcolonial theory. It is important, therefore, to understand what is entailed by these two concepts. Critical discourse analysis, or CDA, focuses "on the role of discourse in the (re)production and challenge of dominance.

Dominance is defined here as the exercise of social power by elites, institutions or groups, that results in social inequality, including political, cultural, class, ethnic, racial and gender inequality. This reproduction process may involve such different 'modes' of discourse-power relations as the more or less direct or overt support, enactment, representation, legitimation, denial, mitigation or concealment of dominance, among others" (Van Dijk 1993, 249-50). This is not to imply that all balance inequities are inappropriate and should be the site for critical analysis, as some are necessary and typically non-abusive, such as the power dynamics between a teacher or parent and a child. CDA advocates being watchful and critical of those power imbalances which are inappropriate, lacking legitimacy and reinforcing social inequalities.

Critical discourse analysis is not necessarily linked to any single paradigm or discipline. It is heavily influenced by the concept of social justice, eschewing the neutral stance that is favored in much academic research. Instead it is positioned vis-à-vis a sociopolitical goal, and engages the researcher's personal values to promote social justice. In order to engage in CDA, the researcher should clearly articulate their particular ideology, as work within this context is undertaken with a specific goal of achieving social change through better understanding of power structures and abuses. It is therefore important to understand the ideologies influencing this particular research. Consistent with the values espoused by the Canadian Library Association (CLA), I believe that in order to achieve an "…open and democratic society…" its citizenry must have ready access to information (CLA 2008, under "Our Mission, Values & Operating Procedures"). This also means that the information that people require must be presented in such a manner as to be accessible to them. As a mother of three and a believer in alternative healthcare, I have personally experienced the information needs during pregnancy, and have been frustrated by the biomedical focus of most of the available literature. I found that there was a wealth of information related to the various complications that I experienced (bleeding, preterm labour, and preeclampsia), but that little of this information addressed my psychological or emotional needs. Additionally, having worked in Edmonton's downtown for several years, I was able to witness first-hand and on a daily basis the injustices enacted towards the inner-city residents, many of whom are Aboriginal. These experiences were very formative, and serve as the foundation for this research, in which I examine the available literature in order to target those elite members of our society who use their positions in order to construct information in such a manner to "…enact, sustain, legitimate, condone or ignore social inequality and injustice" (Van Dijk 1993, 252). The specific targets then of this particular research are the neocolonial practices enacted through the production of consumer health information for pregnant Aboriginal women in order to demonstrate how our shared colonial past has resulted in continued cultural marginalization. Therefore the critical analysis of the literature produced for pregnant Aboriginal women and their healthcare providers will be viewed through a postcolonial lens.

Postcolonial theory encompasses several foundational tenets, namely,

> the need to revisit, remember, and "interrogate" the colonial past and its aftermath in today's context; the need to critically analyze the experiences of colonialism and their current manifestations; the need to deliberately decentre dominant culture so that the perspectives of those who have been marginalized become starting points for knowledge construction; and the need to expand our understanding of how conceptualizations of race, racialization, and culture are constructed within particular historical and current neocolonial contexts (Browne, Smye and Varcoe 2005, 19-20).

It is important to note, however, that postcolonialism is something of a misnomer, as the "post" may seem to imply that we have moved beyond our colonial past and that colonial practices no longer occur, which would be inaccurate. There are still neo-colonial practices in occurrence that further the marginalization and subjugation of Canada's Aboriginal populations, so the term "anti-colonialism" may be more accurate for the work described above, rather than "post-colonialism". Dei and Asgharzadeh write that anti-colonialism, like CDA, requires that examination not only of racialization, but also of power structures and the enactment of domination, "of how dominance is reproduced and maintained, and how the disempowered are subjugated and kept under constant control" (Dei and Asgharzadeh 2001, 317).

I mentioned that there are current practices that promote colonial agendas within the Canadian context. Browne, Smye and Varcoe state that these practices, including those codified by the *Indian Act*, "shape life opportunities, economic conditions, and the overall health status of individuals, families, and communities" (Browne, Smye and Varcoe 2005, 20-1). Within the context of healthcare and access to care, the authors go on to state that racialization, culture and the practice of "Othering" tend to be the issues that are the most problematic. Postcolonial theories draw attention to issues of partnership and voice in conducting research, they explicitly advocate for social change, they require examination of the historical context which has conditioned healthcare and access to it, and these theories caution us to be wary of how research has been conducted and how research can be used to further neocolonial agendas. Dei and Asgharzadeh state that "the relevance of a theory should be seen in how it allows us to understand the complexity of human society and to offer a social and political corrective - that is, the power of theories and ideas to bring about change and transformation in social life" (Dei and Asgharzadeh 2001, 298), and critical discourse analysis can be a potential means of examining one aspect of our society to better understand how neocolonial practices are still being enacted, and require correction.

In order to understand whether neo-colonial practices are evident in both consumer health publications and in the scholarly publications that inform the practice of healthcare providers, it is important to first explore the research pertaining to the medicalization of childbirth, Indigenous Knowledge, information seeking behaviours, and the information needs of pregnant women. This research enables a meaningful analysis of the literature available to Aboriginal women and their healthcare providers in order to assess whether this literature presents the required information in an appropriate manner. These bodies of literature are examined in the following chapter.

CHAPTER TWO

Literature Review

Introduction

As this research rests upon the theory that the manner in which information is constructed serves as a factor that may influence information seeking behaviours, it is important to critically examine how representations of Aboriginal women in pregnancy-related publications are constructed. In order to better understand this issue, there is a great deal of literature that informs this present study. Research related to the medicalization of childbirth was examined; medicalization has an impact on pregnant women's information seeking behaviours, as pregnancy and childbirth practices have shifted from a natural life event to a medical event mediated by healthcare practitioners. Additionally, the literature pertaining to Aboriginal ways-of-knowing and Indigenous Knowledge was examined, so that pregnancy-related publications could be analyzed using the appropriate criteria. Another body of literature that was reviewed includes publications on information seeking behaviours during pregnancy (related to pregnancy, childbirth, infant care and childrearing), with a particular emphasis on the information behaviours of women from cultural minorities. This body of literature served to inform the collection and analysis of publications that were available to pregnant Aboriginal women, as well as those publications available to healthcare practitioners offering care to pregnant Aboriginal women.

Medicalization of Childbirth

For the purposes of this research, it is important to understand the history of the medicalization of childbirth, as this shift in how pregnancy and childbirth have been managed within our cultures affects how women seek out information regarding their pregnancies. The medicalization of pregnancy and childbirth has prioritized the knowledge of the scientific practitioner over the experiential knowledge of women who have given birth themselves or attended the births of others. Medicalization can be described as a social process in which the biomedical perspective advanced by a body of experts comes to dominate discursive practice and frames natural life events as medical episodes, illness or disease, situation these events within the sphere of the medical practitioners (Walters 1994). This biomedical paradigm not only negates women's experiential knowledge, but it also imposes a Western scientific body-mind dualism framework; this framework is "the acceptance of Cartesian philosophy that drew a crucial distinction between the material and spiritual worlds" (Cahill 2000, 335) upon all matters related to health, a framework that is not necessarily compatible with all women's cultural beliefs, particularly for Aboriginal women, who see health more holistically and view the spirit as being integral to ensuring good physical health (Dufour 1987).

Historical analysis of childbirth practices

Historically, pregnancy and childbirth were both regarded as natural life events that could realistically be expected to occur during a woman's childbearing years. This process was not initially deemed to be one that required medical attention, unless something should go wrong during the delivery, in which case medical intervention may have been required to assist the mother usually by the forcible removal of the infant. Typically, however, women were attended by either a midwife or neighbour woman, and far from being a medical event, these layings-in were often very social in nature. Prentice et al. state that "[c]hildbirth [in New France] was a major social event. Women gave birth at home, assisted by midwives, and often in the presence of a large group of people – certainly with relatives and perhaps the priest very close at hand" (Prentice et al. 1996, 39). Oftentimes, these lay-midwives were unpaid, and in addition to assisting with the delivery of the infant, they would also provide assistance with the care of any older children, and with some of the housework. However, this type of care went out of vogue with the increased medicalization of childbirth, which often saw all references to midwifery removed from the discourses around pregnancy and maternal health, ensuring that information regarding the use of midwifery was suppressed in order to further promote the medicalization of prenatal care (Barker 1998, 1071).

The medicalization of childbirth occurred more slowly in Newfoundland, where midwifery remained common practice for much longer than in the rest of Canada due to geographic isolation and the rural economy. There, the option to be attended by a midwife was still commonly available up to 1960 (McNaughton 1989, 8). Usually, these lay-midwives (often trained as apprentices, rather than through formal post-secondary institutions) worked for little or no pay, and any payment received was usually payment in kind.

Medicalized Childbirth

The public health movement began in North America in the early Twentieth Century, and one of its many concerns was over the prenatal care of pregnant women. One of the first endeavours in this arena was the publication of a booklet entitled *Prenatal Care*, which explained to women what to expect during their pregnancies, how to cope with common symptoms such as fatigue and nausea, and when to seek medical assistance. This booklet was first published in 1913, by the American Government Printing Office, and was written by policy researcher Mrs. West. This booklet remained in circulation until it was rewritten in 1930 by Dr DeNormandie, a male physician. “It was not until well into the twentieth century that the notion of medically monitored pregnancy evolved, even among obstetricians. Medical texts of the nineteenth and early twentieth centuries did not include substantive material concerning the supervision of ‘normal’ pregnancy” (Barker 1998, 1067). During this period, however, women began to be increasingly influenced by the scientific discourse of the public health movement, which convinced them that childbirth was a dangerous event requiring medical supervision and technological intervention (Relyea 1992, 163). One vocal proponent of medicalized care during pregnancy and childbirth was a Dr. DeLee, who “believed the repeated thrusts down the birth canal, head pounding against the rigid perineum, were in some cases responsible for brain damage, epilepsy, and cerebral palsy” (Edwards and Waldorf 1984, 5). Dr. DeLee published his opinions in 1920, and used this justification to increase the acceptance of totally anaesthethized births. As a result of the acceptance of this type of discourse, increased use of the lithotomy posture (i.e., with the woman flat on her back and her legs restrained in stirrups), episiotomy, and complete sedation through the delivery process became widely accepted.

The medicalization of childbirth has resulted in the delegitimization of women’s lived experience, and the prioritization of medical scientific knowledge, typically available from a male practitioner who therefore did not have the benefit of having lived these experiences (Barker 1998, and Cahill 2000). This shift is demonstrated in the publication of the previously-mentioned public health booklet *Prenatal Care*. It is important to note that the first issues were written by a woman, Mrs. West, who was not a medical practitioner. She advocated basic hygienic means to handle pregnancy symptoms such as fatigue and nausea, and provided a list of symptoms that would allow a woman to self-diagnose whether or not she were pregnant. The later editions, however, were written by a male medical doctor who, rather than drawing from his own experiential knowledge, shifted the focus of the pamphlet to emphasize the importance to receiving prenatal care from physicians; many of the traditional remedies and treatments for morning sickness and the like were dismissed as old-wives tales (Barker 1998, 1071). The later editions also listed the symptoms of pregnancy, but insisted that only a physician could make an absolute diagnosis of pregnancy, stating that “[t]hough a woman may stop menstruating and concurrently experience the enlargement of her breasts, morning sickness, increased frequency of urination and fetal movement, she cannot ‘know’ if she is pregnant” (Barker 1069). Only a physician could truly diagnose a woman’s pregnancy, despite whatever evidence the woman herself may have experienced. This quote, taken from the revised *Prenatal Care*, written in 1930 by Dr. DeNormandie, provides an excellent example of the prioritization of scientific medical knowledge over women’s own experiential knowledge. To insist that a medical diagnosis is necessary to confirm pregnancy, despite the fact that women may have experienced everything from cessation of menstrual cycles, to an enlarged abdomen complete with fetal movements, seems almost farcical in its extreme need to focus on biomedical knowledge over experience.

Another trend that is made obvious in the *Prenatal Care* publication is that of class and social status ideologies evidenced through proscribed behaviours for pregnancy. The medicalized version of pregnancy and prenatal care advanced a specific depiction of ideal womanhood, conflating ideas of gender and class rhetoric with medical requirements for appropriate prenatal care (Barker 1998, 1072), which is made obvious in the booklet's emphasis on how much rest pregnant women should be getting, and how they should only work if they felt so-inclined. These depictions of ideal womanhood are very much steeped within a certain socio-economic class, and are not necessarily desirable or achievable by women in different circumstances, demonstrating how information can be constructed in such a manner as to promote very specific ideologies, in this case both the ideologies of medicalized prenatal care and ideal womanhood.

Pathologization of Parenthood

In addition to prioritizing the scientific biomedical model of pregnancy, the medicalization of childbirth has also resulted in a "trend towards pathologizing motherhood (and fatherhood)" (Lee 2006, 48), bringing people's emotional responses to pregnancy, childbirth and parenting under the authority and control of the medical community. While many people are now likely familiar with the term 'postpartum depression' from the amount of attention that this 'disorder' has received in the media, now prospective and new parents are also being diagnosed with a wide range of other disorders to explain their emotional states, including: Postnatal Stress Disorder; Tokophobia (fear of labour and delivery); Maternal Anxiety and Mood Imbalance; Postnatal Depression; Antenatal Depression; and Male Postnatal Depression (Lee 2006). "There is truth to this argument insofar as in some circumstances the illness label can provide a means through which a woman can externalize her feelings, fight against them, gain medical treatment to help her do so, and move on" (Lee 2006, 48), but Lee cautions that this approach is not without risk, and that medicalizing these experiences can also be problematic. Although medical practitioners are likely attempting to assist their patients by labelling these 'disorders', there is a justifiable concern that doing so may remove a woman's (or man's, in the case of

Male Postnatal Depression) agency and ability to seek the means to manage her (or his) own emotional response to this new situation, limiting parents' abilities to successfully negotiate their new roles. Becoming a parent can be stressful, certainly, but does attaching a label to that stress increase or diminish an individual's ability to deal with that stress? Additionally, it raises the question of whether it is appropriate to medicalize emotional states of being. While it may be scientifically accurate to draw the linkage between hormone levels and sadness following delivery (Postnatal or Postpartum Depression), is that a useful distinction when dealing with individuals who subscribe to a holistic belief system? Or, could that be more stressful to individuals who do not subscribe to the biomedical model that separates their emotional and spiritual state from their physical wellbeing? This trend toward the pathologization of emotional health is very problematic when dealing with Aboriginal peoples. As Nadeau and Young state, "[t]he extensive class, race, sexual, and colonial violence that many Native women have experienced is lost in the diagnostic terminology of post-traumatic stress disorder (PTSD), a label found in the American Psychiatric Society's *Diagnostic and Statistic Manual of Mental Disorders (DSM-IV)* and applied to a wide range of physical and emotional responses" (Nadeau and Young 2006, 90-91). This removes the context and meaning of the suffering experienced by Native women, and reduces it to a pathological condition, rather than recognizing the true origin of their trauma. This enables the dominant society to manage emotional problems through medical terminology and prescription drugs, rather than dealing with the underlying causations, many of which have their roots in our shared colonial past.

There are many valid concerns with the current biomedical treatment of pregnancy. In addition to the concerns mentioned above regarding the trend towards pathologizing emotional responses to pregnancy, there is also rising concern over the number of medical interventions that are required during a medically-supervised birth. While there are many cases in which medical interventions are required, there is also the fear that one intervention may lead to another, "[f]ailed induction or forceps usually requires caesarean section and routine use of foetal heart monitoring logically means that foetal distress is more likely to be diagnosed, but mistakes can and do occur” (Cahill 2000, 339). This requirement for ever-increasing medical interventions, while oftentimes necessary, may also be linked to increases in maternal and foetal mortality rates. In fact, Barker states that “[n]ot only did the significant fall in maternal mortality in the twentieth century pre-date the widespread use of prenatal care, but even the modest fall in mortality since the 1950's has not been convincingly linked to prenatal care” (Barker 1998,1068). Rather, Barker states that the reductions in maternal mortality rates can be attributed to the increase of antiseptic techniques as related to infant delivery practices, as the increased awareness of antiseptic cleaning decreased the incidence of postpartum infections. However, there are many conditions (such as placenta previa and pre-eclampsia) in which the health of the expectant mother and the unborn child relies on appropriate prenatal care. Nevertheless, the extensive medical monitoring of pregnancy and childbirth may potentially have an adverse emotional impact on women transitioning to motherhood, as the over-emphasis on the physical aspects of pregnancy can undermine the importance of the psychological and emotional shift required as a woman transitions to motherhood (Cahill 2000, 339). These psychological changes are then addressed through the pathologization of women’s emotional responses, as described previously.

Reclaiming childbirth

Currently, there is a growing movement to de-medicalize pregnancy care and childbirth in Canada. Midwifery is becoming increasingly available to women who choose not to participate in the biomedical model that has become the norm, strengthened by the ideological arguments of midwives themselves and their proponents (Rushing 1993, 61). This option, however, is not available universally. For instance, in Alberta, midwifery services have only been paid by the province recently, with midwifery fees being covered by the provincial government beginning in April 2009 (Alberta Association of Midwives 2008, under “Press Release”); previously, women who wanted to be attended by a midwife had to pay for the services themselves. It is interesting to note, therefore, that in Alberta, midwifery services had been utilized only by the more privileged segments of society, those same groups who, decades previously, pushed for the increased medicalization of pregnancy (see Kreiner 2009, or McKendry and Langford 2001). McKendry and Langford state that "[a]lthough the state bureaucratic process which led to midwifery's legal status continued to operate in Alberta in the late 1990s, it took second stage to the cost cutting agenda. This explains why midwifery, once legalized, was simultaneously embraced as an example of government attention to consumer choice in health care and unfunded to the point where midwifery services were less accessible in 1999 than they were in the years prior to legalization" (McKendry and Langford 2001, 540). By offering midwifery services as a healthcare option that the consumer had to pay for, Alberta's government established a system wherein only women from within a certain socio-economic strata could afford to procure the services of a midwife. Those without the means to afford such services themselves had no option but to deliver their babies in a hospital under the care of a physician. This model was not adopted by other provinces, however, as the situation has always been quite different in British Columbia, where, "[p]rior to 1998, midwifery was alegal (neither legal nor illegal) in BC, and while current legislation incorporates midwifery into the formal health care system and certified midwifery care is paid for by public health insurance, lay midwifery is now outlawed" (Westfall and Benoit 2004, 1400). Midwifery has become institutionalized and regulated, bringing it within the sphere of influence of the medical community.

In addition to the regulation of midwifery care and its positioning within the scientific medical community, the use of midwifery care also seems to come with some burden of responsibility on the mother. Where it seems commonly acceptable for women to deliver under the care of a physician, there seems to be some onus on the woman to prove that she is entitled to the use of midwifery services. One researcher wrote that "[t]he women in this study took an active role in acquiring an understanding of medicalization and the alternative, midwifery, so that they could make informed decisions about their situation. In doing so, the women developed and illustrated their right to determine their own choices in life" (Parry 2008, 802). Had the women not been able to articulate their understanding of medicalization and midwifery, would that then have demonstrated their inability to determine their own choices in these matters? This is a very interesting statement, and one that seems to support the prioritization of Western epistemological positions, and continues the trend of the conflation of the ideal womanhood and class rhetoric, this time to support women's desire to de-medicalize pregnancy and childbirth. Women must have the ability to articulate their suitability to pursue alternative care, within the appropriate Western scientific discourse paradigms.

The prioritization of scientific discourse has been used not only to demonstrate women's agency and ability to make their own choices regarding their pregnancy care options, but also to re-legitimize midwifery and to seek its recognition as a profession. It is interesting to note that midwives and advocates of midwifery have adopted scientific rhetoric and discursive practices in an attempt to legitimize midwifery, as these discourses are particularly well-suited to allow advocates of midwifery to counter criticisms using the same language as the critics. As Rushing notes, it is ironic that "... contemporary proponents of midwifery are using the very same rhetoric that midwifery opponents used in the late 19th and early 20th centuries" (Rushing 1993, 52). The importance of discourse in both the medicalization of childbirth, as well as the subsequent movement towards a more holistic, natural view of childbirth, speaks to the validity of critical discourse analysis as an approach to examine these issues. Van Dijk writes that "Control of knowledge crucially shapes our interpretation of the world, as well as our discourse and other actions" (1993, 258), which is borne out by the evolution of healthcare practices for pregnant women.

While the medicalization of childbirth was heavily influenced by the public health movement of the early Twentieth Century, its de-medicalization has been influenced by the Natural Childbirth movement, a movement which originated, somewhat ironically, with the work of two doctors, Read and Lamaze. "The fact that this impetus to forego some of the medical interventions that had become so popular in childbirth originated from within the scientific medical community no doubt facilitated its widespread acceptance" (Rushing 1993, 53). Again, it is clear that support for natural childbirth from the upper and middle classes also facilitated its acceptance as these portions of the population were better able to articulate their desires in a manner that would be most acceptable to medical practitioners.

Proponents of midwifery in Alberta, British Colombia, and Ontario have spearheaded movements to have midwifery legally recognised within those provinces (McKendry and Langford 2001, 532), as well as to promote midwifery educational opportunities to further the advancement of the profession. These educational programs have not always been well-received by the larger medical community in other jurisdictions, and in fact, "American physicians fought hard against midwifery education, in spite of midwives wanting an education, which public health reformers supported. In the early 20th century, many midwives still practiced in rural, remote areas of the country and with inner-city, poor populations" (Brodsky 2008, 49). These populations are among those that can face some of the most challenging obstacles to receiving appropriate care during their pregnancies, and the policy (which has been in place since the 1980s) of evacuating pregnant Aboriginal women from remote rural areas to urban centres for their delivery, away from their families, communities, and support networks, has been demonstrated to be problematic (Kreiner 2009, e4). "Women who live in remote communities often spend three or more weeks hundreds of kilometres away from home in an unfamiliar place. Language may be a barrier, and cultural norms and expectations may be different. Women may be unable to eat at a time when nutrition is important" (Couchie and Sanderson 2007, 251). By offering midwifery services within their communities, women could have the opportunity to remain within their own cultural settings, making the birth experience less stressful and more aligned with their own cultural beliefs.

Childbirth and Aboriginal Women

Among the Aboriginal peoples of Canada in general, and the Inuit women of the North specifically, historically pregnancy and childbirth were also treated as natural life events. One woman recalled her education regarding childbirth, saying, “[w]e were told that our skin wouldn’t tear because it was very elastic and that there was nothing to be afraid of” (Dufour 1987, 26). There were many proscriptions that a woman who was expecting was supposed to follow, and these all helped her to deliver a strong, healthy baby. The mother was expected to continue to work, but was not to overwork herself, and she was to eat larger meals more frequently. The expectant woman was to refrain from overly heavy work, and to avoid eating raw meat. Midwives assisted in childbirth, but more so from the perspective of providing company and talking the woman through her labour and birth experiences, as opposed to actively delivering the child. “Until the middle of the 20th century, Aboriginal women in rural and remote areas gave birth in their communities, usually assisted by family members, traditional midwives, or both”(Couchie and Sanderson 2007, 250-251).

During the 1950s, the federal government became concerned with the provision of healthcare to the Aboriginal peoples of Canada’s far North. This initially led to an increased demand for nurse-midwives (Relyea 1992, 164), in order to have medically trained experts who could replace the lay-midwives who were then providing care to the women of their communities. “When Inuit were moved into permanent settlements, women gave birth at newly established nursing stations, usually assisted by non-Inuit nurses or midwives” (Couchie and Sanderson 2007, 251). After a time, it became increasingly difficult to maintain staff within these northern communities, so it then became the norm for pregnant women to be evacuated out of their smaller communities to a larger centre as their due-dates approached, so that the women could deliver their babies under appropriate medical supervision. Brodsky states that “[by] 1951, 90% of births took place in hospitals. By midcentury, lay and granny midwives were almost annihilated, and then nurse-midwives and midwifery schools emerged. But this group was not autonomous as the traditional midwives were” (Brodsky 2008, 50).

In order to meet the needs of women in rural or remote areas as well as in Northern Aboriginal communities, midwifery education programs have begun to make inroads. One early example of such a program was that established in 1986 in Quebec, which was “developed in response to community recognition that the official policy to evacuate all pregnant women for childbirth had detrimental effects on women, families and the community. Three Inuit midwife apprentices, nominated by their communities were selected by a committee for training" (Relyea 1992, 166). This program would not only allow some Inuit women to deliver in their own communities, avoiding the need for evacuation to an urban centre, but would also avail them of the opportunity to receive care from their own community members, familiar with their language and cultural beliefs. "It has long been recognized that the physical, emotional, and cultural well being of socioeconomically disadvantaged clients are positively affected when they are cared for by health professionals drawn from their own communities, ..." (Kreiner 2009, e2), and this concept of appropriate healthcare is not unique to the socioeconomically disadvantaged, but also applies to members of specific cultural groups, such as the various Aboriginal nations of Canada. Building on this concept of offering culturally appropriate pregnancy care, in 2006 a midwifery baccalaureate program was initiated in Manitoba as a joint effort between provincial and federal governments, First Nations communities, and the College of Midwives of Manitoba. "Named *Kanácí Otinawáwasowin,* which means "sacred midwifery" in Cree, this program is designed to include Aboriginal ways of knowing and learning in all aspects of teaching and practice" (Kreiner 2009, e5). This program answers the call of so many researchers, who, like Couchie and Sanderson, have stated that "First Nations, Inuit, and Métis populations want to select from their own communities women to be trained to deliver midwifery services within those communities. If this is to succeed, health care providers must encourage the development of community-based midwifery programs" (2007, 252). By training women of the community within their own communities, not only would these women be receiving the medical training that they need to safely deliver their communities' infants, but they would also be receiving their training in a more culturally appropriate manner, more closely aligned with their own Indigenous Knowledge or Aboriginal ways of knowing. The next section explores what is meant by those terms.

Aboriginal ways of knowing and Indigenous Knowledge

Epistemology is a branch of philosophy which is concerned with the examination of knowledge and cognition. There are multiple epistemological positions, or varying understandings of knowledge and its construction and validity. Two such positions are rationalism and empiricism: "Rationalism holds that reason is the sole source of knowledge while empiricism asserts that all knowledge derives from sense-experience giving rise to the empirical method of acquiring knowledge through observation and experiment" (Dick 1999, 308). In addition to these two particular epistemological positions, there are a multitude of various understandings of knowledge and cognition, including standpoint epistemology (which posits the theory that knowledge is socially situated), constructivism (in which learners construct their own knowledge through reflection), and Indigenous Knowledge or Aboriginal ways of knowing, which is of particular relevance to this research.

It is important to acknowledge that when referring to Indigenous Knowledge or Aboriginal ways of knowing there is no unified, homogenous body of knowledge or single epistemological position (Newhouse 2004, 139), much as there is no single, overarching epistemological position in Western society. These concepts of Indigenous Knowledge and Aboriginal ways of knowing refer to a plurality of epistemological positions, some of which may have commonalities that unite them, but which are (in many ways) unique to the particular cultures that gave rise to them. To fail to acknowledge this fact is a failure to recognize that the "colonized subaltern subject is irretrievably heterogenous" (Spivak 1995, 26).

One concept which is often conflated with Indigenous Knowledge is that of traditional knowledge. Traditional knowledge (TK) is sometimes described as being synonymous with Indigenous Knowledge. Nadeau and Young state that "Traditional knowledges are unique tribal customs, practices, and knowledge systems including environmental, herbal, medicinal, spiritual, architectural, cosmological, as well as ceremonies, songs and dances" (2006, 89), but it is important to draw the distinction that Indigenous Knowledge does also include more contemporary ways of knowing than what is commonly understood by the term “traditional knowledge”.

Therefore, recognizing that there is no one, single representation of Indigenous Knowledge, and that Indigenous Knowledge can also be interpreted as encompassing elements of traditional knowledge, how then can one define what is intended by the term “Indigenous Knowledge”? Dei, Hall and Rosenberg’s conceptualization of this concept articulates the complexities of defining Indigenous Knowledge:

> We conceptualize an ‘indigenous knowledge’ as a body of knowledge associated with the long-term occupancy of a certain place. This knowledge refers to traditional norms and social values, as well as to mental constructs that guide, organize, and regulate the people’s ways of living and making sense of their world. It is the sum of the experience and knowledge of a given social group, and forms the basis of decision making in the face of challenges both familiar and unfamiliar. . . It is accumulated by the social group through both historical and current experience. This body of knowledge is diverse and complex given the histories, cultures, and lived realities of peoples (Dei, Hall and Rosenberg 2000, 6).

This conceptualization of Indigenous Knowledge speaks to the pluralities inherent within this concept, as Indigenous peoples represent multiple social groups who have lived their own histories within their own traditions and locales.

Battiste and Henderson offer a different description for Indigenous Knowledge. They write that:

> Indigenous ways of knowing share the following structure: (1) knowledge of and belief in unseen powers in the ecosystem; (2) knowledge that all things in the ecosystem are dependent on each other; (3) knowledge that reality is structured according to most of the linguistic concepts by which Indigenous describe it; (4) knowledge that personal relationships reinforce the bond between persons, communities, and ecosystems; (5) knowledge that sacred traditions and persons who know these traditions are responsible for teaching “morals’ and “ethics” to practitioners who are then given responsibility for this specialized knowledge and its dissemination; and (6) knowledge that an extended kinship passes

> on teachings and social practices from generation to generation(Battiste and Henderson 2000, 42).

This description of Indigenous ways of knowing denotes an epistemological position that is very holistic, and that differs substantially from the typical Western paradigm in which information or knowledge is often stripped of its context and situation within a specific discipline or classification. Instead, Indigenous Knowledge is personal, tied closely to sense-making and is very much derived from the specific context (community, history, locale, etc.) in which it was conceived; therefore it cannot be removed from this context in order to be analyzed and classified according to Western practices. This is consistent with the assertion that categorization is not a part of Aboriginal ways of knowing (Battiste and Henderson 2000, 35).

Lambe and Tekaronianeken / Swamp also explore the differences between Indigenous approaches to knowledge and those embraced in the dominant society, particularly within the academy. “In the west, to understand often involves defining. In the academy, there is further emphasis on intellectual knowledge as opposed to experience. When Native persons relate cultural understanding they often preface their expression with "this is how I understand it." Implicit in this preface is the idea that there are many ways of knowing which are contrary to some expressions of Western culture where emphasis is on definitive truth” (Lambe and Tekaronianeken / Swamp 2002, 433).

Another researcher to note this dichotomy is Marker, who describes some of the epistemological differences between Aboriginal ways of knowing and the manner in which Western society, particularly within the academy, understands knowledge. He writes that “[a]lthough Indigenous modes of gaining knowledge can also be systematic, they usually involve connecting diverse points of reference that defy disciplinary or methodological boundaries and draw on an individual’s relationships to people, animals, the landscape, and an oral tradition framing a time-space arrangement” (Marker 2004, 105). This point is important, because it emphasizes that Indigenous Knowledge should not be deemed to be lacking in rigour or be deemed less valid than the knowledge produced within the dominant cultures. Newhouse echoes this, writing that "…indigenous knowledge arises out of careful observation and careful thought carried out within a particular cognitive framework, reflective of an underlying mode of thought or cognitive orientation towards the world. It is also transmitted in a particular fashion under particular circumstances through particular people" (Newhouse 2004, 150).

Newhouse also explores the spiritual nature of Aboriginal ways of knowing. He postulates that Indigenous Knowledge is firmly grounded in the spiritual realm, that it "...consists of more than a collection of observations that are then packed into a set of theories that tell us how things work. The spiritual reminds us of a universe that is alive everywhere, that we are intimately connected to all living things and that we have a set of relationships that need to be maintained in order to live well in the universe" (Newhouse 2004, 150). According to Newhouse, sense-making is another important aspect of Indigenous Knowledge, a process which is rooted in one's identity, which in turn is rooted in one's heritage, community, and place within the world.

Further to these aspects of Indigenous Knowledge, Newhouse also states that Indigenous Knowledge and scholarship are imbued with a sense of agency and offer a means by which to construct the world "...through one's thought, action, and feelings" (Newhouse 2004, 144). Indigenous Knowledge production can therefore be seen as being a potential site for decolonizing practices, producing information and knowledge in manners that shape the world to promote anti-colonial practices. This is somewhat counter to Shahjahan's assertion that "… imperialism's epistemic violence annihilated the old culture and left the colonized without the ground from which they could reply and confront the other" (Shahjahan 2005, 222). Shahjahan's statement demonstrates the danger inherent in essentializing the experiences of Indigenous peoples, which "reduces the experiences of diverse peoples to a presumed, reified commonality, and in doing so overlooks important differences and unique experiences, and too often overlooks the agency of those assigned to the "oppressed" side of the binary oppressed/oppressor" (Browne, Smye and Varcoe 2005, 25).

Indigenous Knowledge can therefore be understood as a term that represents a multitude of ways of knowing, including metaphysical and spiritual aspects of knowledge. It is important that this knowledge be shared orally, as the telling and conversing fosters relationships, and those relationships are an important part of the knowing and understanding.

Indigenous languages and kinship

Battiste and Henderson state that "[w]here Indigenous Knowledge survives, it is transmitted primarily through symbolic and oral traditions. Indigenous languages are the means for communicating the full range of human experience and are critical to the survival of any Indigenous people" (2000, 48). Indigenous languages are viewed as sacred, and as a central component to the maintenance of Aboriginal ways of knowing and of being. Eli Taylor from Sioux Valley First Nation in Manitoba expressed this concept:

> Our Native language embodies a value system about how we ought to live and relate to each other… [I]t gives a name to relations among kin, to roles and responsibilities among family members, to ties with the broader clan group… [T]here are no English words for these relationships… Now, if you destroy our languages you not only break down these relationships, but you also destroy other aspects of our Indian way of life and culture especially those that describe man's connection with nature, the Great Spirit, and the order of things. Without our languages, we will cease to exist as a separate people (Assembly of First Nations 1992, 14).

Aboriginal languages are therefore hugely important, not only for the sharing of traditional knowledges, but also because the dominant language may not contain the terms necessary to express the concepts that form traditional knowledge and cultural beliefs, such as the kinship relationships described above.

The kinship ties described above are extremely important in Aboriginal communities. It is through the family and larger kin group that Indigenous Knowledge is shared, and indeed it is through the family that the community governs itself.

> In our territory, family was the unit through which our governance took place, indeed takes place. Survival was dependent upon relations, relations were dependent upon laws, laws were based

> upon governance, and how you governed yourself and your family was based upon your understanding of the roles assigned to you by the Creator, In a sense, your obligations (while broad and universal) were also part of your familial relations (Lindberg 2004, 348).

In addition to being important to the continuation of kinship relations, language also has the potential to promote anti-colonialism. Shahjahan states that "language [can be used] as a counter discourse to rupture the hegemony of colonial language and colonial forms of knowledge production" (Shahjahan 2005, 219). If Aboriginal languages can relay concepts that cannot be translated into English or another dominant language, then knowledge or information produced in Aboriginal languages would be exclusive to those who are familiar enough with that language to understand the knowledge within the linguistic context in which it was created.

IK and Colonialism

Aboriginal ways of knowing or Indigenous Knowledge systems also encompass elements of anti-colonialism. Newhouse writes that modern Aboriginal societies are defined by a post-colonial consciousness that includes an awareness of its history of colonization and the ongoing impacts of that colonial history. These modern Aboriginal societies are attempting to deal systematically with the results of their colonial histories and are beginning to find the means by which to accomplish their goals (Newhouse 2004, 141). This post-colonial consciousness implies a heightened awareness of the community's cultural traditions and its colonial past, a desire to understand how colonialism has affected its culture, and a strong sense of agency to shape a new future.

Shahjahan writes to the need to promote Indigenous peoples' agency through the academy. He writes about the importance of agency in the promotion of hope and survival for Aboriginal communities, stating that "[a]gency is not just about resistance but the will to change and hope. Our analyses in our scholarship implicate the kind of action we wish to achieve in the world around us. If we come up with defeatist analyses, then we will perpetuate the colonial prophecies" (Shahjahan 2005, 229). This speaks to the production of knowledge, and how those particular productions can further specific concrete realities.

Colonization, especially the forced assimilation policies of residential schooling, resulted in the fragmentation of traditional Indigenous Knowledge. We have seen how that traditional knowledge is rooted in language (which the children were often denied access to in the residential schools) and in community relations (which were severed when children were taken from their families and transported to other communities for their education). Battiste and Henderson write that “Their ways of being have been systematically fragmented and devalued in Western knowledge, sciences, and other dominant modes of knowing” (2000, 13). However, despite these colonial practices to alter the ways of being of Aboriginal peoples, and despite any research that may seek to claim that these colonial practices were successful in their attempts to eradicate Aboriginal knowledge and practices, O’Riley asserts that “…Canada’s Original Peoples and their knowledges, traditions, and relationships have survived” (O’Riley 2004, 84).

Anti-colonialism is essential in order to ensure that these knowledges, traditions, and relationships continue to survive and to flourish. Anti-colonialism emphasizes the importance “… of using indigenous language and knowledge forms to create social understanding that draws and combines literature with politics, culture, history, economics, and understandings of spirituality. Indigenousness refers to the social norms and values, and the social and mental constructs which guide, organize, and regulate a people's ways of living and making sense of their world” (Dei and Asgharzadeh 2001, 304). Has our society embraced what we know of Indigenous Knowledge forms to construct information in a meaningful way that will also promote and further Aboriginal peoples’ own sense of their worlds?

IK and pregnancy

How do these theories of Indigenous Knowledge impact our understanding of how pregnancy-related information should be conveyed to Aboriginal women? In Western society, pregnancy and childbirth are medicalized events, and the knowledge produced around these life events is typically controlled by the medical community. Alvares states that:

> Colonialism added a new burden on modern science: it was compelled to claim a monopoly in knowledge in order to retain its claimed superiority. This monopoly is based on the premise that all other forms of acquisition or accumulation of knowledge, all other epistemologies, are worthless, antiquated, magical, and must be eliminated (Alvares 1991, 91).

This knowledge monopoly of the scientifically proven truths has resulted in the dismissal of other ways of knowing, and Aboriginal ways of knowing are not necessarily considered or given primacy when establishing healthcare policies for Aboriginal peoples. The practice of forcing the evacuation of pregnant women to larger centres to deliver their babies robs Inuit women of the opportunity to birth their children in a culturally appropriate manner, but science has demonstrated that it is in the mother's and infant's best interest to evacuate them, regardless of how the women might feel about such a policy.

The Ontario Aboriginal Healing and Wellness strategy states that "Aboriginal health is wholistic, and includes the physical, mental, emotional, spiritual and cultural aspects of life. Through this understanding of self, a vision of wellness which balances body, mind and spirit is promoted throughout the healing continuum" (in Newhouse 2004, 144). This strategy stresses the importance of returning the design, delivery and control of Aboriginal health initiatives back to the Aboriginal communities.

The following section explores the literature regarding women's information seeking behaviours during pregnancy so that we can better understand their information needs during pregnancy, how women seek and interact with information, as well as what types of information are sought regarding infant care and the postpartum period. Publications on the information seeking behaviours of women from other cultural backgrounds are also examined, in order to explore how their information needs may differ from those of the dominant culture. Finally, the research pertaining to the information seeking behaviours of pregnant Aboriginal women are examined in order to better ascertain what Aboriginal women's information needs are, and whether the production of knowledge in this field furthers the bio-medical model and any lingering colonial practices attached to it.

Information Seeking Behaviours

While women's information needs during pregnancy have been well studied, there is a noticeable lack of literature pertaining to the information needs to pregnant Aboriginal women in the Canadian context. Aboriginal women "…live in two cultures, the Indian society and the mainstream society. The child care mothers provided to their infants reflected infant care perspectives from the two different societies. Mothers ordered their care to include what they thought was the best care from the two cultures" (Nichols 2004, 235). If Aboriginal women are evaluating two different information systems in order to provide what they deem to be the best care for their infants, it is important that we understand their information needs and do our best to supply them with culturally appropriate information in a manner that best suits their needs.

Some of the research regarding the information behaviours of women seeking pregnancy-related health publications provides concrete examples of the types of information being sought by women who either are pregnant or are contemplating becoming pregnant. The importance of information in the decision-making process during pregnancy has been examined, as the ability to make informed decisions increases a woman's sense of control and her perceived satisfaction in terms of her pregnancy and childbirth expectations (Mackay and Yager Smith 1993). Some of the literature examines the issues surrounding minority women from different cultural backgrounds, who have immigrated into Western cultures. These articles deal with cultural practices surrounding pregnancy and childbirth, as well as with potential barriers to information experienced by these women. Additionally, there is research that examines pregnancy within Aboriginal communities, discussing issues such as access to healthcare, and culturally specific practices concerning pregnancy and infant care.

Importance of Information during Pregnancy

Information is important as a tool to facilitate the decision making process, as well as to increase the sense of personal control. Mander’s research has recognized the importance of information exchange for pregnant women and their spouses in the decisions that they reach regarding their postnatal care and the care of their newborn infants. Mander’s article (1997) points to an alarming trend in the United States, in which many decisions are being made by insurance company policies – for example, the practice of circumcision is paid for by medical insurance, and so is often performed with little or no real discussion or exchange of information between the health care providers and the parents. The very important decision on whether or not to circumcise a newborn boy is made by default by the insurance companies, rather than through a frank and open exchange of information that would empower the parents to choose for themselves. Likewise, insurance companies are unwilling to pay for more than 24 hours of hospitalization after a woman’s childbirth experience (barring severe complications) and so women do not have the opportunity for a longer stay, or to get ongoing assistance (often in the form of education) for breastfeeding concerns, or in how to care for their infant.

In addition, Mander has also studied the importance of information exchange as it relates to pain control (1992). Her research points to pain medication as one area in which women have some means to exert a measure of control over their birthing experience. This decision-making power is also eroded by the increased emphasis on epidural anaesthesia – one labour and delivery nurse proudly informed Mander that their local epidural rate is over 80%, while another nurse commented that the anaesthesiologists were shark-like in the pursuit of labouring women to administer to, and that they would enter into labour and delivery rooms uninvited in order to advocate for their epidurals. No mention was made of whether women had been informed as to possible side-effects, or of alternate methods of pain control. Mander and Melender state in their article written in 2005 that in order to be meaningful, information must be presented to the expecting mother when she requires it and when she is best able to use that information, and that "...some childbearing women may find themselves having to accept the overwhelming power of institutional authority and allowing their personal knowledge to be subsumed by the alien form which may result in compliant behaviour" (Mander and Melender 2005, 508).

Not only is information important in order to empower women to make their own decisions during the pregnancy and childbirth processes, but it is also important for peace of mind and general feelings of equilibrium. Levy (1998) examines how pregnant women regulate and incorporate information in order to maintain a sense of personal equilibrium. This article is somewhat unique in that it also examines information avoidance and delay as information behaviours. Levy states that information can be required in order to maintain equilibrium or peace of mind when women encounter new situations over the course of their pregnancies. However, information can also serve to disrupt equilibrium, if it forces the woman to confront an unwanted situation, to make an unwanted decision, or to make a decision that could cause conflict. Levy also stresses the importance of trust and rapport between the pregnant woman and her health care provider, so that the woman can feel comfortable asking questions in a non-threatening environment, pointing out that women who feel that they will be judged will often "play the game" with their health care provider (agreeing to breastfeed, for example) and then later make their own (potentially ill-informed) decisions once they are in the privacy of their own homes. Levy also points out that most women recognize the need to turn the decision making over to the health care providers should an emergency situation arise, but that this relinquishment of control is much more easily achieved in a trusting relationship. In order for this trust to grow, health care providers must be adept at reading women's cues, so that they can interpret when women are uncomfortable with the information they are receiving and consult with the woman before proceeding.

Pregnancy/Childbirth Information needs

Women experiencing their first and subsequent pregnancies need to inform themselves on a wide variety of topics as they progress through their pregnancies. Women use many different types of sources in order to gain that information, from health professionals, to print materials, the Internet and interpersonal sources (Romano 2007, McDermott 2007, and Wallis et al. 2006). Benn, Budge and White (1999) examined the information seeking behaviours of 50 women who were either attempting to become pregnant, were pregnant at the time of the survey, or who had recently given birth. They found that women went to medical practitioners like doctors for factual information, that midwives were valued for the support and reassurance that they provided, and that interpersonal sources were valued for their ability to offer support or for their own personal experience. This mirrors the findings of Szwajcer et al.(2005), who found that the type of information source sought depended on the stage of the pregnancy of the woman seeking the information.

Soltani and Dickinson's article from 2005 also explores the various sources that women use in their information seeking. They found that women used professional, interpersonal as well as print resources, but that in regards to the print material, "that more than half of the women in the non-professional group did not understand all of the information" (Soltani and Dickinson 2005, 633). This points to the importance of providing information in a personal setting which allows and encourages discussion and questions. Likewise, the study by Aaronson, Macnee Mural and Pfoutz (1988) demonstrates that socioeconomic status, age and locus of control are all factors influencing pregnant women's information seeking behaviours. In their study (which was somewhat limited in that the women involved were predominantly white and middle class), the researchers found that women with a lower socioeconomic status relied more heavily on interpersonal sources (largely family and friends) for information than did women with a higher socioeconomic status, who relied more on print materials for information. This difference points to the need for further studies exploring women's information seeking behaviours as affected by culture, involving a more diverse participant base.

With regard to the various types of information required by pregnant women, nutrition concerns seem to be well documented (Juman Blincoe 2005 and Digate Muth 2007). Szwajcer et al. (2005) sought to examine the information seeking behaviours of pregnant women requiring nutritional information, as well as those information sources relevant to the pregnant women's information needs. In order to examine this issue, in depth interviews were conducted with one dozen women from each of five groups: women desiring to become pregnant, women in their first, second, and third trimesters of their first pregnancies, and women in the first trimester of their second pregnancy. Interestingly, the authors reported that the women experiencing their first pregnancies exhibited different information seeking behaviours depending on whether the women felt themselves to be mothers from the moment they knew themselves to be pregnant, whether that feeling of motherhood occurred later in pregnancy, or for those who did not yet identify themselves as mothers. Those who felt themselves to be mothers earlier on in the pregnancy reported using the greatest variety of information sources, while those who did not yet feel themselves to be mothers "…mainly relied on their own common sense"(Szwajcer et al. 2005, S57). The authors have identified that this study will be used to inform a larger, quantitative study into maternity nutrition-information seeking behaviours. Perhaps another useful study would be to determine what factors influence the point at which women feel themselves to be mothers and therefore embark on more active information seeking behaviours.

Infant care/feeding/postpartum care

Infant care and feeding (Chezem, Friesen and Clark 2001), what to expect in the first several months of parenthood, and how to maintain their own personal health postpartum (Reid-St. John 2004) are all topics that pregnant women also tend to gravitate to, especially as they enter into the third trimester. McKenzie (2006) explores yet another particular information need. McKenzie's research presents an exploration of the baby-feeding information seeking behaviours exhibited by Canadian women pregnant with twins, and in order to accomplish this research, McKenzie conducted in-depth interviews with 19 women from

Ontario who were all expecting twins. McKenzie states quite clearly that she used a convenience sample, as the number of women expecting twins in Southern Ontario was limited, and that she also focused on women who spoke English fluently. McKenzie stated that the women described their information seeking in the framework of two interpretive repertoires. She found that the women "…emphasized the distinctiveness of multiple (as opposed to singleton) pregnancy and parenting, whereas the second [repertoire] was constructed around the uniqueness and individuality of each person, both each individual pregnant woman and each of her unborn babies" (McKenzie 2006, 220). She also found that the women in the study seemed to equate information seeking (during pregnancy) and breastfeeding with "good mothering." This article also states that the women who participated felt a genuine lack of information (both formal sources and informal sources) that pertained to their needs with regard to their multiple gestations and how best to feed twins. The author recognized that the group that she interviewed was fairly homogenous, but makes no comment on the need to explore this topic in the context of the information-poor, of different cultural groups, or possible linguistic barriers to information.

The issue of infant feeding is one that not only reinforces the importance of adequate information and education, but is also very highly charged emotionally, as noted above with the conflation of the concept of good mothering and one's ability to breastfeed. Sheehan, Schmied and Cooke (2003) illustrate the importance of the decision on how to feed one's infant, and how public perceptions around the issue of breastfeeding have impacted women's emotions tied to this decision, especially those who choose to bottle-feed. The authors link the decision of whether to breast or bottle feed to women's perceptions of how they will be viewed by society – that society deems women who breast-feed their infants to be good mothers, unlike those who choose to bottle-feed. One mother in the study stated that "I'm not unintelligent I am very aware of the benefits of breast feeding …and ultimately I know that's the best thing I can do for my baby, […] But I'm sure I will still have feelings of guilt if its not working and I decide to bottle-feed. I'll think 'oh my God I'm doing the wrong thing by my child'"

(Sheehan, Schmied and Cooke 2003, 262). Clearly, this is a topic that is not easily navigated by pregnant women. The authors state very eloquently that "… many studies consider or assume that the decision to breast feed is largely a matter of individual choice and rational decision-making. Breast-feeding decisions and experiences are complex, however, and rather than being an individual act, baby-feeding decisions are constructed and practised within the social milieu in which women live" (Sheehan, Schmied and Cooke 2003, 259). A factor that can add to this complexity is the possibility of being a minority woman, with her own cultural practices around the issue of infant feeding, as well as her own particular economic needs (Morrow 1992, Rossiter 1992). The information needs of women from ethnic minorities should be examined in the context of infant feeding, as this is a decision that can be guilt-ridden within the mainstream culture, leading to a sense of increased marginalization within a society that places such value on breast-feeding that there is little understanding for those who decide to bottle-feed, regardless of the reasoning behind their decisions.

Postpartum health represents another area of interest for pregnant women, and includes such topics as depression, nutrition, and fitness. Postpartum depression, in particular, is a very important topic affecting not only the health of the mother, but also the health and development of the infant. One study had mothers simulate symptoms of depression for three minutes while interacting with their three-month old infants. Even at this young age, a very brief exposure to depression symptoms led the infants to withdraw from their mothers and exhibit signs of distress (Harvard Medical School 2002). "Some of the predictors for the onset of postpartum depression include low socioeconomic status, stressful life events, [and] low levels of social support" (Driscoll 2006, 403). These are all factors that may be found at heightened levels for Aboriginal women within our society who may be facing barriers to adequate education on the topic, and therefore to the support that they may require.

Cultural practices and expectations

In our increasingly diverse society, it is important to recognize that not all members of society have equal access to information (Berman 2006). According to one study, "…young women, those from minority ethnic groups, and those from lower socioeconomic groups experience greater difficulty in gaining the information they need" (Singh et. al. 2002, 57). Davies and Bath (2002) used a combination of focus groups and semi-structured interviews in order to collect their data. They stated that "[f]ocus groups provide a valuable tool for exploratory research… [which] … may trigger a discussion of issues that have not been considered by the researcher," while the semi-structured interviews "enable the interviewer to steer a discussion more naturally" (Davies and Bath 2002, 305). The research participants selected were all Somali women living in the same city who had experienced childbirth within the previous two years, excluding those who had experienced a stillbirth and those who were pregnant at the time of the research. There were eight women in the focus group, and then an additional five were interviewed.

Davies and Bath found that Somali women used a variety of sources to meet their information needs, but that there was an emphasis on the importance of oral information exchange, that the women tended to evaluate the information differently based on its source, and that "English-speaking and non-English speaking women did not feel they had adequate access to information from health professionals" (2002, 314). Davies and Bath suggest that further research is necessary in order to examine to experiences of women from different cultural groups, with varying levels of English-language competence, and to examine the differences between the experiences of first-generation versus second-generation immigrants.

It is also important to understand the diverse cultural practices associated with pregnancy, childbirth and parenting. Jordan's research (1993) explores childbirthing practices as cultural constructions, and emphasizes the need for maternity and obstetrical policies to accommodate varying cultural practices. Building on this theme, Ngai Fen Cheung (2002) explores the issues of choice and control in her article examining the experiences of Chinese and Scottish women in

Scotland. One method of expressing choice and exerting control is through the use of a birth plan, which “required a certain amount of information, an ability to make sense of that information and to take decision on that basis…” (2002, 205). The birth plan was conceptualized as a tool to enable the woman to think about the birth process and to articulate her hopes and expectations, rather than as being a rigid implementation guide. Cheung explores the dichotomy expressed by these two groups of women, where the Chinese women expressed a desire to have a normal birth that fit the prevailing medical model, while the Scottish women were more likely to assert themselves in an attempt to ensure a more “natural” birth experience - this, despite the fact that in China, analgesia was deemed to be harmful to the unborn baby and was therefore discouraged. Cheung’s research demonstrates the need for “...insight into the different attitudes by different women from different cultures towards the socially mediated meanings of different birthing practices that are shared within the same social setting” (2002, 207). Cheung also lists several anecdotes in which cultural misunderstandings caused some emotional discomfort for the labouring Chinese women. In one case, the midwife who was expected to deliver the child had to call the physician for assistance because the woman entered into preterm labour at 36 weeks gestation. The medical hierarchy had not been made clear to the woman, who became unduly concerned when her midwife refused to deliver the baby, turning that role over to the obstetrician instead. In another incident, the midwife tried to engage the labouring Chinese woman in some small talk, a commonly used distraction technique for pain management. The Chinese woman felt awkward and embarrassed for the midwife, who was talking about subjects that were culturally inappropriate (the midwife was discussing her cat, while the Chinese apparently rarely keep pets, and her husband, a subject which is taboo in the Chinese culture). In both of these examples, it is clear that a lack of cultural understanding can cause pregnant women unnecessary emotional discomfort at a time that is already very highly charged.

Yelland et al. (1998) also explore this potential for cultural misunderstandings in their study examining the postnatal hospital experiences of

Filipino, Turkish and Vietnamese women. One of the women commented on her personal experience with a midwife: “I didn’t understand what she said… she thought that I didn’t listen to her thus she displayed anger, walked away rudely” (1998, 151). Adequate information, on the part of both the health care providers as well as the pregnant or postpartum women, is necessary in order to avoid these situations that can greatly mar a woman’s satisfaction with her birth experience.

The need for information about cultural practices and beliefs for medical staff providing health care services to women from different ethnic backgrounds has been receiving an increasing amount of attention. Cassar (2006) explores the cultural birthing practices of Muslim women and Orthodox Jews living in the United States. Cassar provides a table referencing some of the commonly held beliefs and practices of these two groups, so that health professionals can better understand their needs and tailor their services (including the provision of information) in such a manner as to best accommodate these beliefs. Waters (2006) examines the link between lack of access to information and education to higher infant mortality rates among Spanish women in Oklahoma, with 66% of the respondents to her survey replying that they did not intend to take childbirth preparation classes, largely because the respondents did not speak English and did not know of any classes being offered in Spanish (2006, 33).

The above-mentioned studies are useful for the purposes of this study in differing ways. Davies and Bath (2002) is useful, as it explores the information seeking behaviours of a specific group bound by oral traditions in a print-oriented culture. It highlights the importance of understanding cultural practices in information seeking. Szwajcer et al. (2005) explores the types of nutrition-related information being sought by pregnant women and at which stage of the pregnancy (and their own perceptions of motherhood) they felt an increased need for nutrition information. It was particularly useful, for this study, to examine whether there were any cultural factors that impact the point at which a woman deems herself to be a mother, and whether that self-determination of motherhood impacts their information seeking in maternity areas other than nutrition. Likewise, McKenzie (2006) examines the discourse around the issue of baby-feeding information seeking, and the emergent patterns relating to value judgments regarding how capable a mother will be considered based on the information she has sought for her child, and based on her decision how to feed her children. Unfortunately, her study examined a fairly homogenous group of women, and so it would be valuable to conduct further research to see how women from outside this group related to these issues.

Pregnancy information and Aboriginal women

While there is a lack of literature examining pregnant Aboriginal women's information seeking behaviours, there is quite a bit of published literature on the general health of Aboriginal community members, especially as it relates to pregnancy. Generally, much of the literature examines the potential barriers that visible minorities, including Aboriginal people, may encounter when attempting to access health care. This literature also examines methods that may be used to help remove those barriers and improve access to health resources (Smith and Davies 2006).

Much of the published research in this area tends to focus on specific issues related to Aboriginal women's pregnancies. This research examines health issues such as increased incidence of preterm birth among Aboriginal women (Heaman et al. 2005); how to decrease the incidence of Fetal Alcohol Spectrum Disorder (FASD) (Masotti et al. 2006); as well as studies examining health outcomes within specific communities (Thommasen et al. 2005), and looking at specific risk factors that Aboriginal women may be more likely to encounter over the course of their pregnancies (Wenman et al. 2004).

In order to best understand pregnant Aboriginal women's health-related information seeking behaviours, it is also important to understand the various cultural practices that shape Aboriginal women's beliefs and practices around pregnancy. Lee Ann Nichols has written an article (2004) on infant care within the Cherokee culture, and while this culture is specific to the United States, it draws attention to some of the particular beliefs held within this society and demonstrates the importance of culture in practices around infant care. Nichols states that “The degree with which an Indian family member identifies with the tribe influences the person’s basic identity and self image. The stronger the family member’s identity with the tribe, the more likely the person will adhere to the values, beliefs, and parenting practices of the tribe” (2004, 229). It therefore follows that the degree to which a woman self-identifies as being part of a specific cultural group will also influence the type of information being sought, as well as the information sources that a woman is most likely to use.

Nichols also states that “The Cherokee mother selects health care that will promote the well-being of her infant. These behaviors include integrating Cherokee medicine, using family members who know about herbal medicines, identifying signs of illness, selecting either biomedical or Indian health care (or both), identifying the illness as major or minor, selecting the appropriate health care worker, and using the medicine man’s prescribed health care” (2004, 248). In this regard, it is clear that the Cherokee woman is straddling two different cultures, and utilizing the care and systems that she deems to be best suited to each particular situation. This would by necessity impact her information seeking behaviours, requiring her to find information differently for each context. Although this study examined the infant-care practices of a specific culture from the American context, it does nonetheless point to the importance of understanding the particular cultural practices that may manifest themselves when dealing with Aboriginal groups.

Within the Canadian context, Moffitt (2004) has also done some significant research with pregnant Aboriginal women in the Northwest Territories (2004). Specifically, Moffitt examined the colonialization of the childbirth experiences of the Dogrib women of the Dene Nation. These women from the small, northern community of Rae-Edzo have little access to healthcare within their own community. This therefore necessitates that when pregnant women within this community approach their due-date, they be transported to Yellowknife where they are forced to live in a boarding house, removed from their families and their community, until they deliver their baby and are given permission to return home. Moffitt states that “The reality is that pregnant Dogrib women are not included in the decision making that occurs about their medical travel for delivery. They are presented with forms to sign that constitute informed consent; however, there is no choice in the recommended delivery procedure, and they are basically doing as they are told" (2004, 327). Moffitt goes on to argue that self-efficacy is foundational in order to promote healthy lifestyles, and yet this system undermines women's self-efficacy by removing their control over their birthing options. In order to increase women's self-efficacy, women must have the opportunity to be involved in the decision making process, which involves ensuring access to resources and information. The practice of forced evacuation out of their communities and away from their cultural environment is also inappropriate because it forces the dominant culture's childbirth practices on these women, rather than respecting the women's own cultural preferences. As Couchie and Sanderson state, "Aboriginal women in remote and rural communities should not have to choose between their culture and their safety" (2007, 253).

Tang and Browne's study on racialization and egalitarian discourses (2008), while not dealing specifically with pregnancy-related issues, is nonetheless relevant to this study, as it examines some of the beliefs held by health care providers and Aboriginal community members with regard to their equity of access and treatment. They state that "Contrary to the common perception among many of the Aboriginal patients that their providers viewed them as reflections of dominant stereotypes about Aboriginal people, many of the health care providers we interviewed espoused the view that the social or ethnocultural background of their patients had nothing to do with how s/he would be treated" (Tang and Browne 2008, 116). There seems to be a belief among healthcare providers that all patients are treated "the same." And yet, as the authors make clear, is it sufficient or even desirable to treat everyone the same, especially when there are members of the population for whom access to healthcare is clearly an issue? They make the argument that "Ironically, the egalitarian ideal and its 'logic' of 'treating everyone the same' can actually work against reducing the inequity gap when favorable treatment for some is seen as breaching the value of equality for 'all'" (2008, 116). This was made particularly clear when they spoke to one health care provider who raised the objection that it was unfair that the researchers focus on the needs of the Aboriginal community, and that it was inappropriate to give preferential treatment to the Aboriginal community without examining the needs of the larger community. It is important to recognize that there are cultural and experiential differences among people and that ethnocultural heritage can shape a person's perspectives on their own access to resources, making it potentially inappropriate to assume that all people should be treated the same. This research ties in closely with the present research, as these perceptions of access, and racialization can impact the manner in which information is sought by pregnant Aboriginal women.

These articles are relevant to the research completed here in that they a) point to some of the differences in cultural practices among Aboriginal women where their infants are concerned; b) demonstrate how some of the current medical practices are potentially inappropriate when dealing with Aboriginal women; and c) demonstrate how one's previous experience with health care providers can impact how (and even whether) people choose to access care.

Research Justification

The research undertaken in this thesis serves as important platform on which to build future research, which could be conducted with Aboriginal women to explore their information seeking behaviours during pregnancy. There is a noticeable gap in the research of health information seeking behaviours in this particular area, a gap that if left unaddressed could further continue neo-colonial or inappropriate practices towards Aboriginal women. Understanding how the constructions of pregnancy-related health information publications portray Aboriginal women provides a greater understanding of the relationships between the organizations and groups involved in the dissemination and creation of the information and the intended audiences of the disseminated information. This will also guide understanding of the power-dynamics fostered by the particular aspects of the information production, and how this relates to traditional Aboriginal ways of knowing and to neo-colonial practices. This work is similar to the work undertaken in New Zealand as part of the cultural safety initiative within nursing communities. Browne states that “Used as a framework for prompting critical analyses, cultural safety would encourage nurses to question popular notions of culture and cultural differences, to be more aware of the dominant social assumptions that misrepresent certain people and groups, and to reflect critically on the wider social discourses that inevitably influence nurses’ interpretive perspectives and practices” (Browne 2005, 82).

By examining knowledge that has been constructed within the dominant Western society, I go on to explore whether and how those knowledge constructs are currently furthering neo-colonial practices, and how knowledge can be constructed more appropriately to include and meet the needs of Aboriginal peoples. “The West needs only to examine itself, analyze itself, discover itself, then *take responsibility* for its own actions past, present, and future, rather than, yet again, look at “others” for salvation” (O’Riley 2004, 87). By examining the practices of my own cultural group, the dominant culture, I hope to further anti-colonial practices as described by O’Riley, as well as to align my research with one aspect of Indigenous Knowledge as described by David Newhouse; he states that “It is not an attempt to control the world through an understanding of linear cause and effect, and hence increase the predictability of the future in order to manage the natural world, but to live more easily in a world defined by relationships and forces” (2004, 152). I would like to better understand the relationships at play in knowledge production *vis a vis* pregnant Aboriginal women so that I can better understand how the practices undertaken by members of my community or culture affect other peoples.

Lambe and Tekaronianeken / Swamp wrote that “Part of our responsibility as non-Native people lies in learning about the past, learning about current issues, and supporting governmental candidates and policies that seek to address Native grievances, poverty and other social problems. We have to acknowledge the legacy of colonization and the institutions that we inherited and work within them as best we can” (2002, 427). This research is part of my attempt, as the beneficiary of past colonial practices, to examine the institutions that form part of my own culture in order to recognize and draw attention to continuing neo-colonial practices.

CHAPTER THREE

Methodology

Introduction

It is important that this particular study be delimited by very clearly defined concepts, in an attempt to convey as clearly as possible exactly what is intended in the usage of specific terms, and also in order to position this research in the appropriate context. Therefore, for the purposes of this study, I use the term Aboriginal to represent people individuals belonging to a First Nations cultural group, to the Métis or Inuit peoples. The previous sections represent an exploration of the fields of information seeking behaviours and of Indigenous knowledge. Informed by those bodies of literature, I then embarked on the collection of pregnancy-related information publications in order to critically analyze their content. The collection of these resources must also be contextualized, in order to increase the transparency of the research. These documents were collected in Edmonton, Alberta, from September 2009 to June 2010. For the purposes of this study, these publications consisted of readily accessible sources of public health information also known as Consumer Health Information, including pamphlets, brochures, and pregnancy-related books from the Edmonton Public Library. In addition to these consumer health publications, scholarly publications related to pregnant Aboriginal women were also collected from three health related databases available through the University of Alberta Libraries. These documents were then assessed according to the methodologies and frameworks afforded in the field of Critical Discourse Analysis. It is therefore important that the concept of Critical Discourse Analysis be fully explained.

Critical Discourse Analysis

Critical Discourse Analysis (CDA) is a branch of Discourse Analysis, which Jonathan Potter describes as a process, which "…often aims to reveal the ideologies and discourses that underpin different forms of talk and text and, importantly, sustain relations of inequality” (2008, 219). CDA is therefore an examination of power relationships as expressed through discourse, recognizing that those discourses not only delineate the power relations, but also reinforce them. “Power involves *control*, namely by (members of) one group over (those of) other groups” (van Dijk 1993, 254). This power can be reflected through action (forcing the direct action of one group) or through influence, where access to information is manipulated in order to promote the interests of the dominant group. This power of influence is perpetuated through the use of discourse, hence the importance of CDA. Access to the production and dissemination of information or discourse can be mediated and controlled by social elites, where minorities or marginalized people may not be welcomed to participate in public discussions of particular issues. Likewise, certain voices or events may be noticeably absent from published discourses, suppressed in order to ensure that the voices of the dominant culture are the only ones that are easily heard, enabling this elite to continue to control discourse and reinforce their positions of power (Fairclough 2003, 139).

Critical discourse analysis, therefore, serves as a means to examine the relationships between discourse and social or cultural relationships and power structures. It gives us the means to explore how texts and discursive practices are both ideologically formed, and ideology forming, reaffirming and cementing the power base of the elite, resulting in a hegemonic state of being (see Fairclough 1993, and Weninger 2008).

In her article on discourse analysis, McCloskey outlines the key tenets of discourse analysis, and describes how each of these tenets operate together to form social realities (2008, 26). These tenets include: power relations (i.e., those in power disseminate the discourses); social problems (i.e., how social inequalities represented in the construction of discourses impact society); ideologies (i.e., discourses are invested with specific ideologies, therefore deconstructing discourses is an examination of ideologies); context (i.e., discourses occur within specific historical contexts, which can change over time); interpretation (i.e., discourse analysis is interpretive); and social justice (i.e., discourse analysis is not a neutral activity, but rather one that is concerned with the achievement of a specific outcome, namely social justice).

The first concept that McCloskey outlines when discussing discourse analysis is that of power, which is very much foundational to critical discourse analysis. Those who are in elite positions within our society are the ones who have access to discursive resources and can control how messages are constructed and which particular messages are disseminated. There is a correlation between levels of access to discursive structures and social power. The greater the access, the greater the level of power, a concept that van Dijk refers to as the "discourse access profile" (1993, 256), which also encompasses the levels of influence of different genres and avenues of discourse. This recognizes that while most ordinary people have limited access to formal discourse, there are other means of disseminating information, although these other avenues may not influence the overall societal discourses as readily as the more traditional means of disseminating messages. This concept of the "access profile" also acknowledges that in specific situations, individuals may be in positions of subordination to others who may be deemed to have access to more authoritative information, such as when patients are dealing with doctors, or other professionals. It is therefore important that one of the factors considered in CDA is the information producer: who is producing each particular instance of discourse, what is their background, and what agenda are they trying to achieve in the production of their text?

The second concept outlined by McCloskey is that of the "social problem", examining how the social inequalities represented in discursive practices impact our society. These discourses "… may involve, e.g., denial of white racism and discrimination, and a systematic association of ethnic minorities with problematic cultural differences at best, and more likely with … crime, welfare abuse, 'positive discrimination', and being a burden on social resources such as education, housing, and employment" (van Dijk 1993, 264). In the context of this research, how pregnant Aboriginal women are portrayed may involve representations of them as having unfair access to additional healthcare resources, being the subjects of an over-abundance of research (Browne 2005), or being associated with negative traits attributed to their cultures, traits such as alcoholism and substance abuse (Heaman et al. 2005). Any such representations serve not only to reinforce a negative stereotype of Aboriginal cultures, but also to position the dominant culture as a required care-giver to a cultural group that is portrayed as being either unwilling or incapable of effectively caring for itself. These representations may result in the continuation of neo-colonial attitudes or practices, which is an appropriate site for analysis.

The ideological position embraced by the author of each discursive instance is also subject to analysis in CDA, as this is reflected in how the discourse is constructed, serving to reinforce the author's own ideological position. Many (73%) of the consumer health publications analyzed in this study were produced by the members of the dominant culture (either personally or by institutions), reflecting an ideological preference for a Western scientific, positivist understanding of knowledge, a position that may be incompatible with other ways of knowing, particularly with Indigenous Knowledge. Smith explains that Western scientific research, and the discourses that it produces, are largely incompatible with Aboriginal ways of knowing. She writes that, "From an indigenous perspective Western research is more than just research that is located in a positivist tradition. It is research which brings to bear, on any study of indigenous peoples, a cultural orientation, a set of values, a different conceptualization of such things as time, space and subjectivity, different and competing theories of knowledge, highly specialized forms of language, and structures of power" (Smith 1999, 42). This prioritization of Western scientific paradigms can serve to delegitimize other ways of knowing, enhancing the dominant culture's position and ability to impose its own will on other cultural groups.

McCloskey's guide on conducting CDA also emphasizes the context in which the text was created. Discourses change over time, therefore recognizing the specific context in which a particular text was created can facilitate understanding of the evolution of discourses (which is reflective of the evolution of ideologies). Anticolonial discourse analysis is particularly concerned with the context in which knowledge is constructed, recognizing that discourses produced within a specific context (by a particular group at a particular moment in time) reflect and reinforce the power dynamics between social groups. Dei and Asgharzadeh write that the goal of anticolonial discourse analysis is “to question, interrogate, and challenge the foundations of institutionalized power and privilege, and the accompanying rationale for dominance in social relations” (Dei and Asgharzadeh 2001, 300), which makes the contextual site of the creation of an instance of discourse a valuable site for analysis. Further, the manner in which the creators of discourses include or exclude historical contexts from their discourses will, by necessity, serve in the formation of mental models among their readers. Therefore, not only is the context in which the discourse created a potential site for analysis, but so too is the manner in which context is addressed by the authors.

Another aspect of discourse analysis is that it is highly interpretative and exploratory. Discourses can and do change over time, therefore a particular instance of critical discourse analysis is grounded in the context in which it was created, and is also highly informed by the particular ideological bent of the analyst. Discourse analysis, therefore, should be evaluated according to the rigour with which it was conducted, recognizing that the analysis is an interpretive process which cannot be completely authoritative, as it is the embodiment of the analyst’s own unique social ideologies, and others analyzing the content from a different ideological position may interpret that data differently (McCloskey 2008, 36).

Finally, critical discourse analysis is primarily concerned with the promotion of social justice. It is ideologically motivated, and seeks to make society a fair and equitable place for all members, including those on the margins. In a society which has experienced a colonial past, moving past the domination that has become part of the fabric of our society can be challenging. The discourses produced by our society tend to reflect our moral justifications of our positions of dominance. The continuation of these discourses of dominance requires a juxtaposition of the dominant versus the dominated, positioning the dominated as inferior to the superior dominant group "…by emphasizing 'our' tolerance, help or sympathy, and by focusing on negative social or cultural differences, deviance or threats attributed to 'them'" (van Dijk 1993, 263). These discourses shape the perspectives of members of society in general, but specifically of healthcare providers who act as consumers of these discourses. Oftentimes, these discourses portray an image of the dominated group that is very negative, and ascribe these negative qualities (such as alcohol and substance abuse, social problems such as abuse and child neglect, unemployment and dependency on government aid) to cultural characteristics (Browne 2005, 75). Critical discourse analysis can serve as a means of drawing attention to the manner in which the non-dominant group, in this case Aboriginal Canadians, have been portrayed within the discourses constructed by the elites within the dominant group, which can serve to reduce health disparities by changing the attitudes of the healthcare providers who interact with Aboriginal peoples (Browne, Smye and Varco 2005, 27-8).

The ideological position espoused within this research is therefore primarily concerned with the promotion of social justice for pregnant Aboriginal women. Given this particular goal, it seemed appropriate to ground my research within a postcolonial theoretical framework. This framework provides an analytical structure that emphasizes the historical context that shapes our present society, focusing "...attention on the various forms of inequities organized along axes of race, culture, gender, and class; the damaging effects of culturalist discourses; the significance of people's individual and collective histories and people's socio-historical positioning in society; and the development of knowledge that can disrupt racializing policies and practices" (Browne, Smye and Varcoe 2005, 22). Browne, Smye and Varcoe explain how this type of postcolonial theoretical framework is in itself grounded within Western epistemological positions, and uses the language and discourses common to those traditions, noting how this differs from postcolonial indigenous knowledge, which is based on Aboriginal ways of knowing and uses discourses particular to that domain. This is an important distinction, as it is important to emphasize my own role as a member of the dominant society, and my place within the academy, which prioritizes Western epistemologies and discourses.

Data Collection

The publications considered for analysis within this particular study fall within one of two domains. The first type of publication that was collected for analysis consisted of consumer health publications regarding pregnancy or infant care issues. These publications included books on pregnancy and infant care, as well as pamphlets and brochures. Kress states that all texts, "[t]he everyday, innocent and innocuous, the mundane text is as ideologically saturated as a text which wears its ideological constitution overtly" (Kress 1993, 174), therefore all readily available printed resources are a potential site for the promotion of racial inequities, and could be subject to critical analysis. The second type of publication that was included within this study was academic research articles dealing specifically with pregnancy and Aboriginal women. These articles represent a sample of those available through the University of Alberta Libraries system for students, researchers, and most importantly, healthcare providers. These articles have the potential to help shape the perceptions of individuals who provide care to pregnant Aboriginal women; therefore if the portrayal of Aboriginal women tends towards the negative, and if these negative traits are portrayed as cultural characteristics, the perceptions that the healthcare providers form may cause them to treat Aboriginal women in such a manner that forms a barrier to the women's access to equitable healthcare services.

Consumer Health Publications

In order to achieve a manageable sample of discursive items for analysis, the consumer health sources included within this study were limited to those that were locally available through the Edmonton Public Library or from local healthcare facilities. The data collection of books from Edmonton Public Libraries was limited to those books available at the city's main branch, the Stanley Milner Branch, as it contained the largest collection of pregnancy-related books (269 of the possible 598 titles, with the next largest collection being at the

Whitemud Crossing branch, which offered 178 possible titles). The study was also limited to those resources that were published in English, as the researcher is not sufficiently fluent in any other languages to conduct critical discourse analysis of books in languages other than English. Interestingly, however, Edmonton Public Library does carry books on pregnancy in a variety of other languages. At the date of writing, a catalogue search for the term “Pregnancy” returned 598 possibly relevant books, available in one of 15 different languages, including English, French, Spanish, Vietnamese, Chinese, Persian, Hebrew, Amharic, Arabic, Modern Greek, Italian, Korean, Somali, Gujarati, and Hindi. Therefore, while resources are available in multiple different languages for pregnant women from other linguistic backgrounds, it is interesting to note that these options do not include any of the variety of languages spoken by Canadian Aboriginal women (e.g., Cree, Ojibwe, or Athapaskan, etc.).

Of the books available through the Stanley Milner branch of the Edmonton Public Library, only those that were non-fiction were considered, further reducing the potential number of titles to 140. Of these, 68 dealt explicitly with pregnancy (as opposed to other topics returned through the keyword search, topics which included the pro-choice movement and abortion, birth control, infant care, historical aspects, and fetal alcohol syndrome). From these possible titles, an initial sample of seven books was selected. Books written for the expecting father were excluded, as were books written for other specific populations (disabled women, women over the age of 35, women expecting twins or multiples, etc). Likewise, books written on specific themes (yoga during pregnancy, experiencing an “organic” pregnancy, etc.) were excluded from the sample, in an attempt to ensure that the books selected were as general as possible.

In order to select the books to include in the sample, the call numbers for several relevant titles were selected and then the sample was selected by browsing the shelves, using the above criteria. Selecting an appropriately sized sample can be one challenge with conducting critical discourse analysis, but remembering McCloskey’s suggestion that smaller samples can yield some important patterns and trend and that larger samples can quickly become unmanageable (McCloskey 2008, 30), the initial sample of seven books were selected. Had this sample proven to be insufficient to determine any trends or patters during the data analysis, additional books would have been selected using the same methodology. However, this proved to be unnecessary, as the sample did yield sufficient information for this study.

In addition to seven books on pregnancy and infant care selected for analysis, this study also included an additional nine pamphlets or items of ephemera that were gathered locally in Edmonton through walk-in medical clinics, pharmacies, and public health centres (for a list of titles and descriptions of publications, please see Appendix I). The selection of these items involved site visits to three walk-in medical clinics (none of which had any publications available), three pharmacies (one of which had two pamphlets, and another which offered the freely available magazine *Birth issues*), the main branch of the Edmonton Public library (which had a single pregnancy pamphlet in English, but multiple copies of Alberta Health Services leaflets in a variety of languages, excluding Aboriginal languages) and a single public health centre, where the remainder of the items were obtained. A single public health centre was visited because from my previous experience with the health centres when my children were infants, I was made aware of the fact that the information available through these clinics is standardized.

In selecting both the books and the leaflets and brochures, every attempt was made to gather a meaningful, purposive sample of diverse types of publications, so that a sufficient amount of data would be captured for analysis of the discourses represented therein. I also made the determination that if the data seemed insufficient and if additional resources were required to reach saturation of emergent themes, that more publications would be sought. However, even given the relatively small sample, there was not a huge amount of discrepancy in the findings, leading me to believe that the sample size was sufficiently large.

These consumer health information resources related to pregnancy and infant care were examined for general representations of women, again with specific emphasis on the representations of Aboriginal women. Critical discourse analysis argues that “different ways of using language are thought to produce different social outcomes…” (Weninger 2008, 145). Whether specific cultural groups are represented in published literature or if the literature portrays a homogeneous culture composed solely of the dominant group, how any other cultures included are portrayed (with any possible negative connotations), as well as their levels of agency are all factors that help to shape how group members see themselves as well as how the rest of society views those members of that particular group. If there are specific health concerns within a particular group, how are these concerns disseminated through the published literature? Are equivalent problems from other social groups presented in the literature as well, or is it more acceptable to highlight the difficulties experienced by some cultural groups rather than others?

Academic Health Publications

In addition to analyzing the consumer health publications produced for pregnant women, it was also important to conduct an examination of the scholarly publications related to Aboriginal women and pregnancy. Browne states that “... research shows that it is equally important to explore how it is that health professionals come to hold the knowledge and assumptions that shape their views of particular patients or patient groups” (Browne 2005, 64-65). By examining publications disseminated specifically for consumption by healthcare providers, this study explored the perspectives that these healthcare providers are exposed to when reading information on Aboriginal pregnancies. If much of the literature that the healthcare providers are reading is related to Fetal Alcohol Spectrum Disorder, for example, which seems to occur in higher frequencies in Aboriginal communities (Tough, Clarke and Cook 2007, 386), this could lead them to have specific preconceptions of Aboriginal women’s tendency to consume alcohol during pregnancy, whether or not they have ever provided care for Aboriginal women. Van Dijk states that “…the discursive reproduction of dominance, which we have taken as the main object of critical analysis, has two major dimensions, namely that of production and reception. That is, we distinguish between the enactment, expression or legitimation of dominance in the (production of the) various structures of text and talk, on the one hand, and the functions, consequences, or results of such structures for the (social) minds of the recipients, on the other" (1993, 259). While it can be difficult to ascertain how a particular text may be received by its audience, it is fair to assume that there are consequences associated with the consumption of these texts. Research into the reception of the produced text falls beyond the scope of this research, but van Dijk's distinction that analysis of the reception of the text forms a separate dimension that also requires analysis is a valid point. How a text is received is informed by and also serves to form the receiver's social cognitions. These social cognitions inform the discourses put forward by the elite, while those same discourses form the basis of the social cognitions of the receptors.

In order to critically analyze a sample of academic research articles on pregnancy with Aboriginal women, articles were collected from three different health-related databases available through the University of Alberta Libraries. These databases were: CINAHL, the Health Source Academic/Nursing Edition, and Medline. CINAHL is described by the University of Alberta Libraries as providing information in the fields of nursing and other related fields, on topics such as patient care, health promotion, etc. (University of Alberta Libraries 2010a), while the academic edition of Health Source is described more generically, as focusing on medical disciplines (University of Alberta Libraries 2010b). In contrast, the description for Medline betrays a particular epistemological position, as it contains information ranging "from the basic biomedical sciences like anatomy, physiology, biochemistry to clinical information outlining the nature and course of disease or injury, as well as its treatment" (University of Alberta Libraries 2010c). From this description, it would appear that the information presented in this database would follow a more positivist epistemological stance, and this description also imparts the perception that the information in this database will promote the concept of body-mind dualism that traditionally accompanies the biomedical model. By retrieving articles from these three different databases, a comparison can be made between the databases in order to determine whether culturally sensitive information is more likely to be disseminated in one particular database or another.

All three of these databases were accessed using the EbscoHost platform, in order to use as consistent a sampling method as possible. The Ebsco platform allows the user to browse the journals indexed by the database, or to search the list of published journals by title or by subject matter. This enabled the analysis of the number of journals dealing with Aboriginal health contained within each specific database. Searching for the term “Aboriginal” in either the title or subject matter returned two relevant journals from the CINAHL database (*Aboriginal Nurse* and *Advances in Contemporary Indigenous Healthcare*). The same search returned no results from the Healthsource database, and two from Medline (*Aboriginal and Islander Health Worker Journal* and *Aboriginal History*). A search of Ulrich’s International Periodicals Directory for the term “Aboriginal” as a keyword within the periodical titles returned 62 active journals, of which 16 are peer-reviewed academic journals, demonstrating that there is a significantly higher number of journals dealing with Aboriginal issues than those that are indexed by CINAHL, Healthsource and Medline. The *Journal of Aboriginal Health*, which is a peer-reviewed journal, was notably absent from any of these three databases. This raises the question of how journals are selected for inclusion in these databases, and who controls that selection, as there are numerous other journals dealing with Aboriginal people or scholarship that are not indexed by these databases, with the result that the Aboriginal world-views and ways of knowing are not necessarily represented in these databases for healthcare providers. The use of a single platform (Ebsco, in this case) also allows the user to sort the returned articles by relevancy ranking, as opposed to the traditional sort by date of publication, and as the search terms (“Aboriginal AND Pregnancy”) did return some irrelevant articles, it was felt that only those that were the most relevant should be included in the critical analysis. The first 20 relevant research articles (excluding such results as editorials and book reviews) were collected and stored by database, in order to determine whether or not there may be trends towards specific representations in different databases.

The Medline search returned 267 articles, the CINAHL search returned 87 articles, and the Healthsource search returned only 44 articles. As mentioned above, these were ranked by relevance, and then the first 20 applicable research articles were retrieved for analysis (for a list of citations retrieved by database, see Appendix II). Those articles that were other than research articles were excluded, as were those about Taiwanese or Asian Aboriginal women, as I felt that these may not necessarily be translated as relevant to our Canadian Aboriginal women, although research pertaining to Maori women was included in this study along with research related to Australian Aboriginal women. Some articles were embargoed, and therefore were not included in the data collection. Additionally, some articles were not available electronically, so these were also excluded from the study, as they are less accessible to students and to healthcare providers.

Data Analysis

The critical discourse analysis of the consumer health publications and of the scholarly publications disseminated for health care providers focused on the issues and questions identified in the research problem. McCloskey states that the "… most commonly used approach to coding in DA is to search all of the data and identify every reference made to the process or issue identified in the research question. The next step is to return to the data, dissect it, and identify any unanticipated discourses or processes" (McCloskey 2008, 33). In keeping with this process, the analysis of this data focused on whether or not Aboriginal women were represented in these publications, and where they were represented, how they were being portrayed. The analysis included an examination of who produced the publications (who the authors were and their affiliations), and whether there were any particular patterns in the production of that information.

Consumer Health Publications

The critical discourse analysis of the consumer health publications collected from Edmonton Public Library and from various healthcare facilities focussed on the texts produced for pregnant women generally, and specifically on those produced explicitly for pregnant Aboriginal women. Fairclough writes that

"Each discursive event has three dimensions or facets: it is a spoken or written *text*, it is an instance of *discourse practice* involving the production and interpretation of text, and it is a piece of *social practice*" (1993, 136). These social practices, as represented by the production and interpretation of these items, many of which are ephemera, do have the ability to promote specific ideologies, to reinforce cultural norms, or to present a different representation of reality, one that recognizes the colonial contexts that have assisted in the formation of health disparities for Canada's Aboriginal peoples. The Nursing Council of New Zealand has recognized how colonialism can negatively impact the health of the colonized peoples, writing that "Being a member of a culture surrounds each person with a set of activities, values and experiences which are considered to be real and normal. People evaluate and define members of other cultural groups according to their own norms. When one group far outnumbers another, or has the power to impose its own norms and values upon another, a state of serious imbalance occurs which threatens the identity, security and the ease of other cultural groups, thus creating a state of disease." (from *Kawa Whakaruruhau: Guidelines for nursing and midwifery education. Nursing Council of New Zealand* In Papps and Ramsden 1996, 493).

In addition to these assessments, the analysis of these publications also involved the examination of the representations of social actors contained within in order to address whether Aboriginal women are present in the literature, or if their presence been suppressed, and where they are included whether they are portrayed as active agents, or passive recipients of care by the dominant society (Fairclough 2003, 145-6). This analysis included the visual images contained within the publications, as well as textual representations of Aboriginal women and women from different ethnic and/or cultural backgrounds, and how these women were portrayed within the publications. Were women treated as a homogenous group, or were different cultural groups represented? If Aboriginal women were represented, was the distinction made that the term Aboriginal does not reflect a single, homogenous group?

One additional aspect that provided a site for analysis was that of ease of readability. Kress writes that "…the demands of 'good', efficient communication suggest that the producer of the sign makes the interest which is coded in the sign relation as transparent as possible for the addressee, the presence of power allows her or him to override that consideration" (Kress 1993, 179). One manner in which sign producers can override this demand for efficient communication is by encoding the information in language that would be inaccessible to the target audience; therefore the readability of each publication was examined using both the Flesch Reading Ease and the Flesch-Kincaid Reading Grade Level assessments (see Appendix III).

Couchie and Sanderson wrote that "Like other women, First Nations, Inuit, and Métis women want control over their birth experiences: they want to choose where they give birth and who provides care for them in the childbearing year, and they want birth to be as safe as possible for themselves and their babies" (2007, 251). Control over their birth includes having access to culturally appropriate information in order to make their own decisions regarding their pregnancy and birthing experiences. The ideologies represented in the consumer health publications may not be culturally appropriate for Aboriginal audiences, and so these ideologies also represented an important area for critical analysis.

Academic health publications

The data analysis for the scholarly publications followed a slightly different path than that of the consumer health publications. As data were collected from three separate databases, information about the data collected from each specific database was compiled in three Excel spreadsheets, to allow for comparison between the databases. Peiris, Brown and Cass wrote that "Studies, predominantly with qualitative designs, have shown that indigenous people are sensitive to power imbalances in their interactions with health care services. This is intimately linked with the dominance of the biomedical paradigm and the view that noncompliant behaviours by indigenous people are the cause of poor health outcomes" (2008, 985). Therefore, the types of articles, and the representations of Aboriginal people that are contained within those articles and disseminated through each of the three different databases presented an opportunity for analysis. Haider and Bawden wrote that not only is “expert knowledge” formed by discourses and a contributor to the continuation of discourses, but that it is also subject to controls imposed by the specific discipline in which it was created (2007, 539). Do the representations and the discourses constructed primarily for nurses (as represented by the sample of articles retrieved from the CINAHL database) differ from those disseminated through Medline, which has a specific biomedical focus? Is any particular database more likely to present discursive properties that result in “…the production or activation of an episodic mental model about ethnic minorities, in such a way that this model will then confirm negative attitudes and ideologies in the audience” (van Dijk 1993, 262)? Anderson writes that a post-colonial feminist perspective is highly pertinent to the field of nursing because it “...focuses our attention on the processes of dehumanization and human suffering throughout history, and gives us a context for understanding health inequalities. *It brings to the forefront the issue of “race” and makes explicit how this socially constructed category has been used in the colonizing process, and the effect that this has had on peoples’ lives and life opportunities”* (Anderson 2004, 240). Whether these perspectives were commonly found among the discourses retrieved from CINAHL, and whether they were also present in the articles retrieved from the other databases was a valuable site for analysis.

After the initial data (regarding the subjects and keywords of the articles) were entered into an excel spreadsheet, the specific discourses presented in the articles were analyzed. Browne, Smye and Varcoe have written that “... some of the most pressing mental health concerns of Aboriginal peoples — those with devastating consequences such as suicide, alcohol and drug use, and violence and their longstanding root causes, including extreme poverty, homelessness, and despair — are often rendered invisible and decontextualized from the structural inequities that produce them” (2005, 29). One of the aspects examined therefore was whether or not the social and historical contexts that have produced some of these health inequities have been represented in the literature, or whether the health issues have been framed or constructed as cultural characteristics.

In addition to examining whether or not health inequities have been constructed in a manner that renders them decontextualized from the historical and social structures that continue to support them, a critical analysis of these research articles must also consider whether any particular ideological or epistemological perspective is expressed. Smith writes that “Research ‘through imperial eyes’ describes an approach which assumes that Western ideas about the most fundamental things are the only ideas possible to hold, certainly the only rational ideas, and the only ideas which can make sense of the world, of reality, of social life and of human beings. It is an approach to indigenous peoples which still conveys a sense of innate superiority and an overabundance of desire to bring progress into the lives of indigenous peoples – spiritually, intellectually, socially and economically” (Smith 1999, 56). Do the articles sampled represent this positivist, neo-colonial approach as described by Smith, or do some of them espouse a post-colonial or anti-colonial position?

Further to these questions, the representations of the social actors constituted a key site for critical analysis. Whether or not specific groups were individually named, or classified as homogenized, generic entities, and whether these groups were constructed as active agents or as passive recipients (Fairclough 2003, 145-6) were other factors considered in the critical analysis of these research articles. Browne writes that “Popularized assumptions about Aboriginal peoples tend to portray a self-reliant member of the dominant culture on the one hand and a dependent, irresponsible Other on the other hand. Underlying such constructions is the view that people should be able to overcome social problems, become self-sufficient, and assume personal responsibility for their lifestyles” (Browne 2005, 79). Where the ‘Other’ is portrayed as a passive, homogenized recipient or subject, and the social inequities are decontextualized from the historical circumstances that produced them, there is the opportunity for a culturalist, racialized interpretation to negatively influence people’s perspectives. In keeping with the analysis of the social actors, the collocation of terms was also examined, in order to determine the types of words most commonly associated with the terms used to represent Aboriginal women.

Billig cautions that one aspect of critical discourse analysis that the analyst should be aware of is the tendency within critical discourse analysis to rely on the use of nominalization, a practice in which a process is rendered into an agentless noun (for example, the process of medicalization), and a practice which, within critical discourse analysis, is in and of itself an appropriate site for analysis. He states that nominalization is mystificatory, in that it serves to conceal. It conceals who did what, and any concept of time. If *mystification* is one potential with nominalization, another is *reification*, in which a process or abstraction is presented as a concrete, tangible object (Billig 2008, 790). It is important to note that both of these terms are also nominals, so the language used by critical discourse analysts is also rife with some of the semantic qualities that are supposed to be the sites of analysis. Billig's points are valid, and in conducting this research , I have attempted to ensure that agency was not removed when discussing processes and actors.

Research Trustworthiness

In order to ensure that the findings that result from this study can be deemed trustworthy, I have tried to address the relevant criteria as outlined by Shenton (2004), who delineated those measures as including: credibility (i.e., consistency with reality); transferability (i.e., can the results be applied more widely?); dependability (i.e., is the methodology well laid out and explained?); and confirmability (i.e., findings represent participant experience, or in this case, can be replicated from the methodology outlined).

The issue of credibility was fairly straightforward to resolve. The language analyzed was drawn directly from the texts, and I was able to include articles that show culturally appropriate representations of Aboriginal women, as well as those that did not. In addition, whenever possible, I have included direct quotes from the texts analysed to demonstrate my findings.

There is some debate over the issue of whether qualitative data is ever transferable, as it examines a specific population within a specific context

(Erlandson et. al 1993). Nonetheless, I attempted to ensure the best transferability possible, by clearly describing the limitations of the research, the context in which the research was conducted, the publications analyzed and the time frame in which the research was conducted. This level of depth of description should allow the reader to ascertain whether the conditions under which the research has been conducted are similar enough to their own circumstances to allow transferability. In addition, the search terms for the scholarly articles retrieved from the database search retrieved some articles from an American or Australian context, and these articles were included in the critical discourse analysis, increasing the transferability of the findings

In order to increase the dependability of the study, I ensured that the research design and implementation were clearly described, as well as how the data were collected and what criteria were analyzed. In this manner, future researchers will be able to replicate the research process as closely as possible, should the need arise.

The issue of confirmability relates to what extent the findings are representative of the discourses as published (rather than researcher bias). It is important, in this case to understand that discourse analysis is interpretive, and formed in part by the researcher’s own experiences. I have, however, described in detail the methods used, the publications examined, and the language used to create the discourses, which should address any concerns regarding confirmability.

CHAPTER FOUR

Findings and Discussion

Introduction

This study examined pregnancy related publications, both those produced for pregnant women's consumption as well as those directed towards their healthcare providers, in order to determine how the discourses presented in those publications portray Aboriginal women. Critical discourse analysis is an ideologically situated research methodology that is concerned with the analysis and dissection of instances of discourse, examining them for specific contextual features in order to better understand how these features reinforce social processes (McCloskey 2008, 34-5). This study has implications for future publications, serving to draw attention to how discourses can decontextualize issues from their historical and societal circumstances, rendering them into cultural characteristics according to which Aboriginal peoples are judged. In order to address existing inequities and barriers to healthcare access, it is important to understand that the manner in which we construct our discourses can serve as a further neo-colonial practice.

Consumer Health Publications

Over the past several years, interest in health information by the general public has expanded, as individuals have become more concerned and involved in the management of their own health (Zionts et al. 2010, 350). As individuals have become more involved in seeking their own health information, sources of consumer health publications have increased accordingly. These consumer health information sources are therefore a valuable site for critical discourse analysis.

Control of Production

Control over the production of discourses, in this case as represented by the consumer health publications produced for consumption by pregnant women, is an expression of power. Van Dijk writes that "Power involves control, namely by (members of) one group over (those of) other groups" (van Dijk 1993, 254). This power is reflected in action (forcing direct action of one group) or in influence, where access to information is manipulated in order to promote the interests of the dominant group. This power of influence is perpetuated through the use of discourse, which is why critical discourse analysis is so valuable in understanding potential neocolonial practices represented in the production of health information. Because of this, critical discourse analysis of these health information resources should examine the sources that are in control of the information. This allows some insights into the types of information that is being produced, and by whom, so that a better understanding of any potential neocolonial practices can be gleaned. As the consumer health books analyzed in this study were selected from those available through Edmonton Public Library, it is important to recognize that the collection development practices of the library are another possible site for control of the dissemination of information.

The evaluation of health information sources can be challenging, and there is an increasing body of literature available to librarians to enable them to familiarize themselves with the criteria for evaluating health information in order to share those criteria with their patrons (Keane 2009, 179). At the same time, there is recognition that the traditional lines of authority are no longer as clear as they once were, particularly with the advent of social media (Neale 2010, 33). However, while the lines of authority may have blurred in the online environment, they must still be considered by librarians as related to collection development practices. The works selected for inclusion within the library must meet predetermined standards, and consumer health publications are typically expected to demonstrate authoritative knowledge.

Of the seven books analyzed in this research, most contained information about the authors. One, *With Child*, was written by authors who clearly reside in places of privilege. At the time of publication (2007), author Susan Boyd indicated that she was an Associate Professor at the University of Victoria, while the other author, Lenora Marcellus, indicated that she was the Leader of Perinatal Program Development for the Vancouver Island Health Authority and a doctoral candidate at the University of Alberta (Boyd and Marcellus 2007, p. 135). Likewise, all three authors of the *Healthy Beginnings* book occupy positions of privilege within the dominant society. Nan Schuurmans is an obstetrician gynaecologist, the Clinical Director of Women's Health for Alberta Health Services, and a Clinical Professor at the University of Alberta. Vyta Senikas is a former obstetrician and is Executive Vice-President of the Society of Obstetricians and Gynaecologists of Canada, while Andre Lalonde is professor of obstetrics and gynaecology at two universities, Ottawa and McGill. So, while all three are obviously very qualified to write about pregnancy and childbirth, it is also apparent that they do represent the elite of our society. Dr. Miriam Stoppard, author of the *New Pregnancy and Birth Book*, is likewise also a professional healthcare provider, as she is a Medical Doctor and a Fellow of the Royal College of Physicians, and so therefore also comes from a position of privilege in order to share her pregnancy health information with the general public.

The *Pregnancy for Canadians for Dummies* book was interesting in that while it proclaimed itself to be "for Canadians" in its title, the first three authors listed have very obvious affiliations to the United States; therefore Canadian authorship is apparently not a pre-requisite in writing books for Canadians. Joanne Stone is listed as being a full-time faculty member at The Mount Sinai Medical Center in New York, together with the second author, Keith Eddlemann. Mary Duenwald is listed as being a writer / editor who has written for *The New York Times* among others. The last author, Janice Pearson, is the only one of the four with obvious ties to Canada, as the "About the Authors" section indicates that she played a role in the development of the first certified childbirth educator training courses in Canada. Aside from this, however, this book is similar to the first three analyzed in that the authors are all obviously part of the elite within our societies.

The *What to Expect When You're Expecting* book differed somewhat from these previous four in that it was not written by a healthcare provider, but rather was conceived of and written by a mother who found that the pregnancy books that she had access to during her pregnancy did not meet her information needs. Author Heidi Murkoff did, however, team up with medical advisors who provided her with content for her books; also, although Murkoff is not a medical practitioner herself, she does represent the dominant society in that she is affluent and white. However, one aspect in which her book differed from the previous books discussed was that she included questions submitted from women (or from their partners) and ensured that she addressed them. Also interestingly, in exploring the website associated with the book, other titles available as part of this series were listed, one of which, *Baby Basics*, was written specifically for women with lower literacy skills. Unfortunately, this book is not available through Edmonton Public Library, but it is available for purchase online (www.whattoexpect.com), and is apparently written at a Grade Three reading level at the beginnings of each chapter, and a Grade Five level at the end of each chapter. It is also available in English, Spanish, and Chinese, which seems to indicate that the author is attempting to be culturally aware and to meet the information needs of other segments of the population.

The authors of *The BabyCenter Essential Guide to Pregnancy and Birth*, Murray, Hennen, and Scott, like Murkoff above, may represent the elite of our society, but do not claim any particular medical expertise. At the time of publication (2005), Murray was BabyCenter’s executive editor, while Hennen was a former senior editor for the same, and Scott was editor-in-chief of BabyCenter and coauthor of another book. Also like Murkoff, the authors of this book do seem to be more aware of cultural diversity and of the importance of allowing women the opportunity to have their voices heard and their concerns addressed. In this book, however, the authors have opted to draw their representations of women’s own voices and stories from the BabyCenter website (www.babycenter.com), and have included comments posted in the discussion forums there within the book itself. This allows the reader access not only to expert medical advice (as vetted through the panel of 54 medical experts listed on pages ix – xii), but access to stories and insights from other women who have lived through these experiences, as well. So, while the authors and the medical experts may represent the elite of society, by including comments from the online discussion forums, women reading this book can get the sense that voices from women from a variety of backgrounds are represented within the book and that multiple voices are being depicted. For instance, in the section on how the news of the pregnancy was shared between the pregnant woman and her partner, one woman wrote “I gave my partner the children’s book *Heather Has Two Mommies*. She knew right away what it meant – we’d been trying artificial insemination for months – and she laughed and then burst into tears!” (Murray, Hennen and Scott 2005, 96). Including anecdotes from a pregnant woman in a same-sex relationship demonstrates the authors’ willingness to include multiple representations of women and their partners, including young or teen parents (105), and single mothers (100).

The BabyCenter Essential Guide also differs in another aspect of its control of voice, in that this book was printed by Rodale, Inc, a company which invests heavily into organic farming and the promotion of natural and local farming. Rodale are also the publishers of *Prevention* magazine, as well as *Runner’s World*, *Men’s Health*, *Women’s Health*, and Al Gore’s *An Inconvenient Truth*. Rodale’s philosophy is one of interconnectedness between systems and with nature. Their website states that:

> While we've all been trained to think that everything can be reduced to a formula, or a secret code in our DNA, we believe that we're all part of a complex system that's constantly communicating. What we do to the system, we do to ourselves. What we do to ourselves, we do to the system. To fully understand and promote the health of our bodies and our environment, we need to shift from the model of reductionism (searching for ever-smaller bits and causes) to a systems-thinking approach (looking at how things are connected) to find solutions (Rodale 2008, under “Point of View”).

This philosophy or ideology seems well aligned with the promotion of holistic well-being, and to recognize the relevance of multiple perspectives in matters of health and wellness, which may be why they chose to publish a book that relies heavily on the experiential advice offered through the multiple voices of mothers and fathers. Therefore, even though the publication of this book is still within the control of elite members of our society (the Rodale companies are owned by the Rodale family, a wealthy, white Pennsylvania family), those members have a clearly articulated agenda to promote philosophies that are aligned with their own

– the promotion of "…healthy living on a healthy planet" (Rodale 2008, under "Point of View").

The *Best Beginning* booklet produced by the Calgary Health Region (now a part of Alberta Health Services) was produced by the Women's Health Services, and does not list specific authors. It therefore represents authorship by an institution, rather than by individuals, and how this institution treats the discourse presented is a reflection of that institution's ideologies. Many of the leaflets analyzed were also produced by institutions, as five leaflets were obtained from Alberta Health Services. All of these items were written without specific individual authorship, but were obviously written from a position of authority or privilege, as they represent the official voice of the provincial health board.

The volume of *Birth issues: Current Options in Pregnancy, Birth and Parenting* that was analyzed represents an alternative voice. This magazine (which is freely available throughout the city of Edmonton) is published by the Association for Safe Alternatives in Childbirth, and the volume analyzed dealt primarily with the topic of home births. Likewise, the *Small Steps Matter* booklet, the *Health for Two* flyer, and the *Fetal Alcohol Syndrome Prevention Project* brochure were also produced by special interest groups – the first was published by the Smoke-Free Families organization and distributed locally by the Alberta Alcohol and Drug Abuse Commission (AADAC), while the second was published by the Health for Two program, which is sponsored by Alberta Health Services, Health Canada, and a variety of community support agencies. The last was published by the Success by 6® Community Team in conjunction with the Bissell Centre and Health for Two.

Ideologies

The publications analyzed represented a variety of ideological positions, from those embracing concepts of cultural safety, to those that clearly attempt to represent the multitude of voices of pregnant women in our society. Also, there are those that attempt to instruct women from a biomedical viewpoint on how best to deal with the physiological symptoms of pregnancy, while others blatantly reject the medicalization of childbirth in favour of a more natural pregnancy and birthing experience. In this section, I review some of these key ideological frameworks as they appear in these texts.

Cultural Safety

The publication edited by Boyd and Marcellus very clearly falls within the first category, as through their book they attempt to promote the practices involved with harm reduction. Boyd stresses the "…importance of providing ongoing education about harm reduction with a focus on pragmatic rather than moralistic interventions. Harm-reduction advocates note that drugs are one factor among many that shape pregnancy and, although drug use is a risk, it is a manageable one" (Boyd 2007, 12). The various authors write of their experiences with harm-reduction programs for maternity outreach in Vancouver's Downtown Eastside, an area plagued by poverty and substance abuse, but the authors are obviously very cognizant of their own positions of power and of the potential for damage in the traditional provision of healthcare services, which often serve as sites for neo-colonial or dehumanizing practices. Hepburn, in the preface, states that "...traditional [drug] management has ... been judgmental and punitive, centred on developing tests to detect maternal drug use and regarded maternal drug use *per se* as child abuse and consequently a child protection issue" (2007, 6). The removal of children from their families may be interpreted as an attempt to protect the child, but caution should be utilized not to repeat the errors of the past residential school programs. The authors also emphasize the importance of caring for rather than "curing" the conditions that these women experience. They stress that "...if we begin to direct, rather than walk with, women on their journey, we lose their trust. We can only care while offering shelter, health care, respect, and human dignity" (Payne 2007, 65). This philosophy is obviously well aligned with the concepts of cultural safety and harm reduction, and represents an obviously different ideology than that represented by the biomedical model, an ideology that is more closely aligned with holistic health instead.

Holistic Wellbeing vs. Biomedical Model

Murkoff and Mazel's *What to Expect* book represents what may be viewed an attempt to represent a more holistic approach to wellbeing, a balanced biomedical approach, meaning that while there is a noted emphasis on symptoms, signs and treatments, the authors do also address other factors, such as emotions, relationships, and other aspects of pregnant women's lives. For example, in their chapter on preconception, the authors offer a note of caution to couples who are trying to conceive, recognizing the strain that this can put on a relationship. They state that "When expanding your twosome becomes your number one priority, when sex becomes functional instead of recreational, when it's less about getting it on than getting it done (and when foreplay consists of running to the bathroom to check your cervical mucus), relationships can sometimes show the strain" (Murkoff and Mazel 2008, 6). These types of references to real-life situations and emotional responses are peppered throughout the book, which offers the reader a pleasant balance and recognizes that pregnancy is not solely a series of physiological events, but involves emotional wellbeing as well.

This balanced biomedical approach is also evident in the book published by Rodale, Inc., *The BabyCenter Essential Guide to Pregnancy and Birth.* As mentioned above, this book draws on the contributions and postings of pregnant women on the online discussion forums from BabyCenter.com and the authors state that "In addition to advice from professionals, the words of pregnant women themselves, drawn from the vast online BabyCenter community, are woven throughout the book. Their voices speak to both the highs and the lows you may feel – and everything in between – and give you a real sense of the diverse ways in which other women experience pregnancy" (Murray, Hennen, and Scott 2005, vii). This book also incorporates information and anecdotes about emotions, relationships, sex, finances, exercise, work, etc., recognizing that the pregnant woman does not experience her pregnancy removed from these other facets, and that information about how pregnancy can impact a woman's life in these other areas is also valuable.

The manner in which this book is structured also demonstrates a recognition that pregnancy is more than a biomedical state, and that a pregnant woman and her partner may require more information than the biomedical facts, important as those may be. Throughout this book, there are sections entitled "Just the facts," which tend to provide biomedical details about specific topics like episiotomies (2005, 418), exercise (2005, 313), or risk factors for miscarriage (2005, 544). There are additional sections entitled "Just for Dad," which provide tips for the expectant father on such issues as how to manage if he cannot take any leave around the baby's birth (2005, 356), changes in libido (2005, 105), or even dream patterns (2005, 188). In addition to these, each chapter also contains sections entitled "Ask the experts," where a specific medical expert provides guidance on a given topic, such as how to avoid an episiotomy (2005, 419) or whether a pregnant woman's lack of sleep can harm her unborn child (2005, 317). The most commonly featured sections, however, are the "BabyCenter Buzz" sections. Each chapter will contain multiple sections with this heading, in which are quotations from the BabyCenter.com discussion forums, allowing the reader to read anecdotes provided by pregnant women about their own experiences during their pregnancies. These experiences are often very raw, and provide a perspective that is noticeably different from that of the medical experts or editorial team. One woman wrote complaining of constipation and flatulence (2005, 163), while another woman wrote asking, "Has anyone else turned into a snot-manufacturing plant? I'm going to buy stock in Puffs! I think I'm single-handedly keeping them in business" (2005, 144). The medical experts may write that during pregnancy, women may experience an increase in mucous production and secretion, but an entry like this is both memorable and meaningful. It allows the reader to feel that someone else has experienced the same difficulties that they are experiencing, and it provides a friendly, reassuring voice as well, allowing the reader to feel that not only is this within the realm of normal, but that these range of experiences are to be expected.

The volume of *Birth issues* represents a significantly different ideological position than do these other publications, not only embracing a holistic approach to health as demonstrated above, but in many instances the birth stories represent an outright rejection of medicalized childbirth. The producer of this magazine, the Association for Safe Alternatives in Childbirth (ASAC), is an organization whose goals include the promotion of “natural childbirth with minimal intervention” as well as the support of “planned, midwife-attended home births” (ASAC 2008, under “ASAC’s Goals”). Many of the articles contained within this magazine, articles written not by the attending midwives or healthcare providers but by the mothers who have delivered their babies under the care of a midwife, contain statements that indicate that the women writing them reject the medicalization of childbirth in favour of a more natural alternative, including the story of one mother who realized her dream of experiencing an unassisted childbirth at home, attended only by her husband (Fenwick, Leigh-Ann, 2010). The entire publication is one which prioritizes the experiential knowledge of the birthing mothers over the expert knowledge of the healthcare providers, which definitely represents a specific ideological position. The editorial by Claire MacDonald states that women from all ethnic backgrounds, religions, age groups, and professions choose to deliver their babies at home (2010, 4), and the birth stories published in this magazine demonstrate the diversity of experiences shared by these women who chose to deliver at home.

The book by Schuurmans, Senikas, and Lalonde, *Healthy Beginnings*, presents a less well-balanced depiction of pregnancy, and while it does address the expecting woman’s emotional well-being, it is more definitely written from a biomedical perspective, which is consistent with the affiliations of the authors (medical professionals associated with the Society of Obstetricians and Gynaecologists of Canada). This book is very much focussed on the stages, signs, symptoms, treatments and tests associated with pregnancy. In the forward to the book, it states that the information presented in this publication is evidence-based, which means that “...the content reflects current knowledge and comes from the latest proven research and professional practices in Canada” (Schuurmans, Senikas, and Lalonde 2009, np). The book’s biomedical focus is evident from an examination of the table of contents, which contains entries ranging from “It all begins with an egg," includes entries on folic acid, anemia, smoking, weight gain, prenatal visits to the doctor, assorted complications (gestational diabetes, preterm labour, etc.), to signs and stages of labour, and how long to expect stay in the hospital. There is no mention in this book of home births or options other than delivering the baby at the hospital. Schuurmans, Senikas, and Lalonde do address midwives, rather than removing any reference to them in order to eliminate midwifery from the discursive practices around pregnancy and childbirth. It is interesting however, to note the manner in which they deal with the topic of midwives. Each of the five references to midwives in this book positions them as a labour support individual, akin to the nurse, rather than a healthcare provider charged with the delivery of the infant. They write that "Studies show that you will benefit from having a nurse or midwife who is focussed on your care. These partners want to help you master techniques to make your labour easier" (2009, 129). They also state that the nurse or the midwife will remain with the mother postpartum to monitor the size and shape of the woman's uterus, to ensure that it is shrinking appropriately and that any postpartum bleeding slows down (2009, 143). At no point in the book do the authors position midwives as those who would deliver babies, nor is this ever mentioned as a possibility to the expecting mother.

Despite this biomedical, medicalized focus, however, the authors do address some holistic elements of women's health, discussing things such as stress, abuse, and relationship, encouraging the reader to speak with her healthcare providers and with her partner about her feelings, about the roles the woman would like both of these parties to play in her pregnancy, about her expectations for her pregnancy, and about how safe and supported (or not) she may feel with her partner and with her healthcare providers (Schuurmans, Senikas, and Lalonde 2009, 42). Additionally, the book does offer support to women that whatever they may be experiencing is likely within the realm of "normal" and that they should feel free to express themselves. When writing about what to expect during labour and delivery, the authors comfort the reader with some words of advice, stating, "You may worry about crying out loudly during labour. Some women do, and others do not. Nurses, doctors, and midwives have heard women in labour making all kinds of sounds and noises. Many women vocalize during labour, others chant, moan, rock their bodies or heads from side to side, or cry. These are all normal ways to cope with labour. You should never feel embarrassed about using your voice during labour" (138). So, while this book is more focussed on the biomedical aspects of pregnancy, it does not entirely neglect other aspects of women's well-being, which is consistent with the manner in which *Dr. Miriam Stoppard's New Pregnancy and Birth Book* was written.

Stoppard's book, while heavily influenced by medicalized childbirth, does address women's emotional needs throughout, recognizing not only the physical journey to motherhood, but also the emotional and psychological transitions involved. This book deals with a variety of topics, many of them medical, but many of which do address other facets of women's lives. For example, in the section on working mothers, Stoppard acknowledges that women work for a variety of reasons, including economic necessity, boredom, the need to be self-reliant or independent, or a strong personal need to work. Stoppard does also recognize that many women choose to stay at home with their children, though, stating that these women "...want to enjoy their children's presence and company much of the time, and, especially while their children are young, find it distressing to leave them even for a few hours" (Stoppard 2009, 29). This pragmatic recognition of the different paths that can be taken by mothers is also reflected in the section on preparing for birth, in which women are presented with information on both home birthing options, as well as hospital birthing choices, presenting viewpoints other than the purely medicalized view espoused by the *Healthy Beginnings* book.

Stone, Eddleman, Duenwald and Pearson's book, *Pregnancy for Canadians for Dummies*, echoes those other books produced by medical practitioners, with their emphasis on biomedical information. As with the above mentioned *Healthy Beginnings* book, this book also addresses the expecting women's feelings and emotional states, but its biomedical focus is quite clear.

The description for this book, as provided by Edmonton Public Library's online catalogue, states that it "...offers solid advice from real, medically-based data," which is supported by the amount of content dedicated to biomedical information, and the manner in which this information was presented. Not only does this book present pregnancy-related information in a manner that completely supports the medicalization of childbirth, but the authors of this book also make some very strongly worded statements about alcohol consumption during pregnancy, stating that

> Clearly, pregnant women who abuse alcohol put their babies at risk of fetal alcohol syndrome, which encompasses a wide variety of birth defects (including growth problems, heart defects, mental retardation, or abnormalities of the face or limbs). Medical science hasn't defined an absolute safe level of alcohol intake during pregnancy. Scientific data show that daily drinking or heavy binge drinking can lead to serious complications, and Health Canada recommends that you do not drink any alcohol during pregnancy" (Stone et al. 2007, 40).

Stated in this manner, women who *abuse* alcohol are depicted as less caring mothers than other women, who abstain completely from alcohol in order to minimize exposing their fetus to a wide range of horrific potential consequences. This type of statement is completely at odds with the harm-reduction programs advocated by Boyd and Marcellus in their work about substance-using pregnant women, and reinforces the position that women who *abuse* alcohol (or drink any alcohol at all while pregnant, as any consumption of alcohol seems to be conflated with the concept of alcohol abuse), are risking their baby's health in a variety of ways, giving the reader the perception that any consumption of alcohol during pregnancy would only be contemplated by those who are unfit for motherhood. Unfortunately, this type of rhetoric fails to address those situations in which a woman may consume unhealthy amounts of alcohol prior to becoming aware of her pregnancy. Fetal alcohol syndrome doesn't only occur due to alcohol abuse or alcoholism, but the manner in which this information is conveyed portrays mothers of babies with fetal alcohol syndrome in a very negative light.

Dr. Miriam Stoppard's New Pregnancy and Birth Book offers an alternative representation of roughly the same information. She writes,

> It has been demonstrated that as little as one drink a day can double the risk of having a smaller baby, and babies of women drinking half that amount tend to be shorter than expected. It is also thought that very small intakes of alcohol can cause many mental conditions so far unexplained, or affect babies mentally and physically in subtle ways. In the present state of knowledge it would seem sensible for women once they decide to have a child, stop drinking altogether (Stoppard 2009, 116).

Although this book has the same biomedical focus as the previously-mentioned book, and although both are written by healthcare providers, this excerpt lacks the moralistic, judgmental overtones expressed in the previous book. Although this book explicitly acknowledges its biomedical tendencies, stating that it "is packed with vital information on the latest fertility treatments, prenatal tests, and obstetric procedures" (Stoppard 2009, back cover), it nevertheless treats subjects like alcohol and substance use more delicately, which is consistent with its above-noted recognition of a plurality of ways in which women experience pregnancy and childbirth.

The *Best Beginning* book published in 2005 by the former Calgary Health Region, and the leaflets produced by Alberta Health Services all embrace a very clear biomedical model. The emphasis in these publications is on signs and indicators of possible complications, hazards to be avoided during pregnancy, the types of prenatal tests that can be ordered and what each test screens for (Calgary Health Region 2005, 27-28), and what to expect at your prenatal check-ups, etc. There is an entire section explaining various symptoms of pregnancy, such as morning sickness, heartburn, constipation, and leg cramps, and what women should do if they experience these particular symptoms (Calgary Health Region 2005, 20-22). These resources do not address the woman's emotional needs, or any aspects of the woman's life other than the pregnancy itself. The one exception to this is the *Health for Two* flyer, which advertises Health for Two programming, and clearly states that it addresses women's questions and concerns including issues such as housing and abuse, healthy eating, income support benefits, etc. This flyer offers women information about a more holistic approach to care and wellbeing, one that covers multiple facets of the woman's lives and experiences, rather than focussing solely on pregnancy. As mentioned above, although Alberta Health Services and Health Canada are involved in this program, there are also a multitude of other community agencies involved as partners in this program, ensuring that pregnant women have access to a variety of community supports that they need in order to have the best possible birth and health outcomes. This flyer states that the Health for Two program provides information regarding topics specific to pregnancy (growth of the baby, pregnancy exercises, birth planning, etc.), but also information on such topics as SFI (Supports for Independence) benefits, family violence, tax benefit forms related to maternity/parental leave benefits or the Child Tax Benefit, etc. (Health for Two 2010). This flyer seems to indicate an understanding that there are multiple facets that can serve as health barriers.

The *Small Steps Matter: A Guide to Help You Quit Smoking* booklet produced by Smoke-Free Families and distributed by AADAC also presents a fairly clear ideological position. Unlike Boyd and Marcellus' harm-reduction program that contextualizes addictions issues and attempts to improve women's health outcomes by acknowledging and addressing some of the root causes of addictions, this booklet instead presents the viewpoints of the dominant society, that smoking while pregnant is bad for the unborn baby, and therefore wrong, and that women who are pregnant should not smoke. The arguments presented for smoking cessation are all biomedically focussed, and the reasons why women do smoke are not addressed in this booklet. This booklet states that "Carbon monoxide and other chemicals from cigarettes get into the baby's blood. They can harm the baby and limit the baby's growth" (Smoke-Free Families 2001, 5). This biomedical focus presents the pregnant woman with valuable information about the potential risks of smoking while pregnant, but it fails to contextualize women's behaviours. The booklet also states that while cutting back on cigarettes during pregnancy does reduce the risks to the baby, that quitting is still the best choice that a pregnant woman can make, and that it is never too late in the pregnancy to quit smoking. The authors do acknowledge the difficulties of quitting, and offer many suggestions on ways to manage some of the situations that can hinder a woman's attempt to quit smoking.

The brochure on the *Fetal Alcohol Syndrome Prevention Project* published by Success by 6® does not present a wealth of information on FASD or substance use, but is instead more geared towards providing information on the services offered through the program for women dealing with alcohol addiction problems. Instead of offering moralistic guidelines warning of the dangers of alcohol consumption, the brochure urges readers to "Support a pregnant woman in her efforts not to drink" (Success by 6®), and goes on to state that they support "pregnant and/or parenting women and their families who have struggled with using alcohol". This emphasis on support, and the terminology used (alcohol *use* rather than the commonly used *abuse*) indicate an ideological position that is more closely aligned to Boyd and Marcellus' book on harm-reduction, and support the formation of a perception that alcohol (and substance) use is one facet of a series of larger problems, and that these other issues must be taken into account when caring for pregnant women who use alcohol. This pamphlet seems to recognize that the best manner of assisting pregnant women to resist the temptation to drink while pregnant (which is risky for their unborn child) is to offer support free of judgement.

Representations of Women

Whether other cultural groups are represented in the literature available for pregnant women offers an important site for analysis. Women need to be able to see themselves reflected in the literature available to them in order for it to be meaningful, and if the literature portrays women as passive recipients of healthcare services as opposed to active agents in their own pregnancy and birth experiences, this may have an effect on how and whether women choose to engage with the materials available.

The books available through Edmonton Public Library offered a variety of representations of pregnant women. The book by Boyd and Marcellus on harm-reduction programs for women using substances during pregnancy does address the reality that many of the women involved in these programs are of Aboriginal backgrounds, and the image of the woman on the cover of the book does appear to be Aboriginal. However, despite this, this book does clearly indicate that the rates of substance use are not tied to ethnicity or cultural background, but rather to a multitude of other factors, including poverty and systemic marginalization. It also discusses historical instances in which other cultural groups experienced surges of substance use, including during pregnancy or for infant care, as with the consumption of gin by London’s working poor in the 1700s, or the use of opiate syrups to soothe colicky babies in the 1800s (Boyd and Marcellus 2007, 20-21). Presented with these historical contexts, it is more obvious to the reader that the individual’s Aboriginality is not the cause of substance use, but that there are other factors (primarily poverty) which may be causal pathways that lead to increased substance use.

Unlike the *With Child* book by Boyd and Marcellus, the *Best Beginning* booklet produced by the Calgary Health Region is not written to address any specific societal issue concerned with pregnancy, but rather is a general book on pregnancy for expecting women. Therefore, textual representations of specific cultural groups are not to be expected in this case, however the use of images throughout the book does represent a cultural diversity. The images are reproduced in black and white, but do very clearly portray a variety of different cultural groups, occasionally with visual cues to aid in the interpretation where necessary. For instance, the image of several Aboriginal women on page 13 of this book places them in front of some artwork depicting a teepee, and the image of a Muslim woman on page 117 shows her wearing a traditional veil over her head. What remains unclear is whether women from these cultural contexts had input into how their cultures were represented in this text. Are these visual cues stereotypical portrayals as selected by the dominant elite in an attempt to be inclusive, or do they represent images of women from these cultural contexts as they see themselves? The text within this book assumes that the expecting woman or new mother is the reader, and so uses the word “you” repeatedly throughout, and this, combined with the variety of visual representations of women used throughout the book, attempts to provide women with the opportunity to see themselves reflected in this booklet, and to feel that this book is written in order to meet their needs. However, as demonstrated in the literature review regarding information needs of pregnant women from various cultural backgrounds, women's needs during pregnancy are constructed in part through her cultural context, and this text fails to address this. So, although Muslim women may see a visual representation of a member of their culture, does this truly address their own needs during pregnancy? Cassar's research (2006) demonstrates quite clearly that there are certain beliefs specific to the Muslim culture that should be addressed by healthcare providers, concepts which could be explored in a publication such as this, in order to truly meet the needs of the Muslim community. These beliefs relate to dietary requirements during pregnancy, to proscribed periods of confinement postpartum, and beliefs around the appropriate care of newborns. Although it is commendable that an attempt has been made in the production of this information to include visual representations of women from different cultures, this is not true inclusion. Rather these sorts of attempts at inclusion represent an instance of tokenism, and do not truly address the needs of women from different cultures.

Murkoff and Mazel's *What to Expect* book also follows this model, using "you" statements throughout the book, and providing visual representations of women from different cultural backgrounds (as does the *Healthy Beginnings* book and the *Pregnancy for Canadians for Dummies*). Murkoff and Mazel, however, go even further in ensuring that women see themselves represented in their work, as the authors have included questions submitted by pregnant women throughout the book. This is a technique that is expanded upon in Murray, Hennen and Scott's *BabyCenter Essential Guide to Pregnancy and Birth*, as it explicitly includes quotes that women (and their partners) had posted on the BabyCenter online discussion forums. This allows the reader to not only get the perspectives of the medical experts, but also to hear the voices of other pregnant women sharing their own experiences. These quotes are very obviously chosen to represent a variety of different cultural beliefs, age groups, socio-economic statuses, etc., painting a very diverse representation of the actors involved.

Of all the books analyzed, *Dr. Miriam Stoppard's New Pregnancy and Birth Book* was the least inclusive in its visual portrayal of different cultural groups. In addition to this lack of cultural representation, this book also seems to be written very much for an affluent, privileged audience. The image on the cover of the book shows the profile of a pregnant woman's bust and belly, and the woman is very fair-skinned wearing black, with her left hand (with wedding band very obviously showing) resting on top of her belly, and her right hand (with a large silver bracelet) cradling her belly. Even though this image is only a partial picture of the woman, she does seem to represent a certain ideal, namely of an affluent, married woman. Within the remainder of the book, there are several images of African-American women, and two images of Asian women, while the vast majority of the images are of white families and there seems to be a complete absence of any representations of either Hispanic or Aboriginal women. This book gives the perception of having been written by a member of the social elite for other members of that particular elite.

The leaflets produced by Alberta Health Services are somewhat similar to the *Best Beginning* book produced by the Calgary Health Region, in that they focus on the pregnant woman and assume that she is the reader of the information, therefore using "you" statements throughout the publications. However, unlike the *Best Beginning* book, these leaflets do not include many images of women. One of the leaflets contains a cartoon-like image of a pregnant woman holding her belly, but rather than the stylized depiction of pregnant women found in some other publications, this representation does seem to be of a white woman, with Caucasian features, and short, fair hair. Given the biomedical focus of these leaflets, they appear to be written generically for all women, and yet by doing so, women almost seem to have been removed from the pregnancy process, replaced by warning signs, by possible hazards to the fetus, treatments and procedures.

This biomedical focus which erases women's presence from pregnancy represents one possible extreme, while the other extreme is represented in the

Birth issues magazine, where the articles are written by women about their own pregnancy, and the emphasis is on the woman's journey through pregnancy, labour and birth to motherhood. Within this magazine, the presence of the medical community and medical procedures are minimized or absent, as the focus is the woman, her experiences, and her emotions. The birth stories shared by the women are peppered with words such as: belief, faith, empowered, terrifying, natural, instinctual, wonderful, powerful, intense, scary, and indescribable. These stories do not attempt to dismiss the physical pain or the emotional strain of childbirth, but encourage women to own those experiences and to make them their own, rejecting the popular medicalized version of childbirth, which relies heavily on medical expertise and interventions. The magazine is an avenue in which women can have their voices heard, instead of relying on the voices of the medical community, however it is not clear how this information would be received by pregnant women needing information. These types of anecdotal stories are informative, but are not authoritative, so while they do offer a different perspective than does the medical literature, by excluding the voices of the midwives and emphasizing the voices of the mothers, this publication may be limiting its usefulness to its readership. However, for the pregnant woman desiring information from the perspective of another mother, this magazine does offer a great deal of information. Not only are the stories and articles presented written by new mothers, but the magazine contains numerous photos of the women (some of them taken during active labour), and of the newborn infants. Most of these images are of white women, which may represent either an indication of who is currently embracing the movement towards a midwife-attended homebirth or an indication of which portion of society is most comfortable publishing very personal stories such as these. In addition to the birth stories, there is also an article by Claire MacDonald that discusses the life and career of Jenny Flett, a Métis lay-midwife from Fort Chipewyan, recognizing the fact that the Aboriginal communities had traditionally relied on lay-midwives. Therefore, even though there are not any birth stories written by women from other cultural groups, there is recognition that midwifery and natural childbirth are traditions among other communities.

The *Small Steps Matter* smoking cessation booklet produced by Smoke-Free Families contains a large number of images of women throughout the publication, but what first strikes the reader is the cover of the booklet, which shows a pregnant women with long dark straight hair and darker skin, a woman who could very well be Aboriginal. Similarly, the *Fetal Alcohol Syndrome Prevention Project* brochure produced by Success by 6® does portray a variety of images of women from different cultures, but the image on the cover is also of a woman with long dark, straight hair, and a darker complexion. Both of these publications ensure that other cultural groups are represented in images throughout the remainder of the text, but the images that are first visible seem to be of Aboriginal women. These two publications offer the only two instances in which Aboriginal women are featured on the cover of a publication, and it is telling that the publications on which they are featured are for smoking cessation and fetal alcohol syndrome.

Representations of women in pregnancy books are important, as the suppression of or the negative portrayal of certain groups can be interpreted as an act of dominance by the producers of the information, who most often comprise members of the elite of the dominant portion of the society. As seen above, there are multiple ways of ensuring that actors are presented in a manner that is as inclusive as possible, and that where negative behaviours are discussed they are contextualized so that the information is not perceived of as a cultural characteristic. Unfortunately, producers of information do not necessarily choose to construct their information in this manner, and choose instead to reinforce societal inequities through their control over the production of information sources.

Readability

In order for communication of information to be effectively received by its intended audiences, it has to be written in such a manner that it can be easily understood. The use of readability assessments for health information sources is fairly well documented (see Mumford 1997, Friedman, Hoffman-Goetz and Arocha 2006, Sheehan 2006, and Walfish and Pinholster 2008), in order to better understand how information is being constructed, and whether it is being written at an appropriate level for the intended audiences. Friedman, Hoffman-Goetz and Arocha have used the SMOG readability assessment in their research regarding online cancer information decision aids, and they found that the readability of these internet decision aids for cancer treatments was at a high reading grade level, and that these decision aids were not overly culturally sensitive (2006, 281). While there are multiple tools that can be used in the readability assessment of a text, for the purposes of this study, the Flesch Reading Ease (FRE) and the Flesch-Kincaid Reading Grade Level (RGL) assessments were used.

Both the Flesch Reading Ease and the Flesch-Kincaid Reading Grade Level assessments examine the number of syllables per word and the number of words per sentence in order to determine how easily understood a text may be. The FRE is assigned on a scale from zero to 100, where zero represents the most difficulty in reading, and 100 means that the text is very easily understood. The Flesch-Kincaid RGL assessment translates that same information into a standardized reading grade level, meaning that a RGL score of eight implies that the text should be readable and easily understood by someone with Grade 8 reading skills (Giles and Still 2005, 54). These readability assessments are not necessarily without fault, and research has been conducted to demonstrate that the Reading Ease score does not necessarily predict effective and efficient comprehension of the material (Karlinsky and Koch 1983, 61). Nevertheless, they continue to be used in recent assessments of health information publications (see Aleligay, Worrall and Rose 2008), and so their use in this research was deemed appropriate.

The readability assessments of the books obtained through Edmonton Public Libraries demonstrated a wide variety of writing styles and reading ease. *With Child* by Boyd and Marcellus, although it was shelved with the other consumer health publications on pregnancy, does not seem to be written for pregnant women, but rather for policy and program developers. As such, its readability assessments were notably different than the other works analyzed in this sample, with a FRE of 14.8 (placing it in the very difficult category), and a RGL of 18.3, indicating that it is written at a post-secondary level. *Best Beginning*, on the other hand, which was very obviously a consumer health publication, scored very differently on both assessments, with a FRE of 62 and a RGL of 7.7, making it much more accessible to the general public. Figure 1 shows the numbers of items that fell within each division of the FRE assessment scale. According to this readability assessment, only four of the fifteen items analyzed were easily readable, while the other ten ranged in difficulty from fairly difficult to very difficult.

The readability assessments for the volume of *Birth issues* were conducted on a sample paragraph drawn from four of the articles contained within the magazine. One of the articles was written in French, which was excluded from analysis. The other samples were chosen at random, with the exception of the editorial, as it provided a writing sample written by a staff member of the magazine, whereas the other articles were largely written by women who were sharing their birth stories. The writing styles, therefore, were a reflection of the women's writing abilities, as these articles and stories do not represent professional writings intended for a specific audience, but exemplify the women's opportunity to have their voices heard as they share their experiences. The individual readability assessments ranged from FRE level of 73.6 and RGL of 7.2 at the lower end of the spectrum to a FRE level of 41.3 and a RGL of 12.6. The average score (FRE level 57.8 and RGL of 9.7) was the only one represented in the chart, however, as this publication was treated holistically, rather than analyzing each article separately.

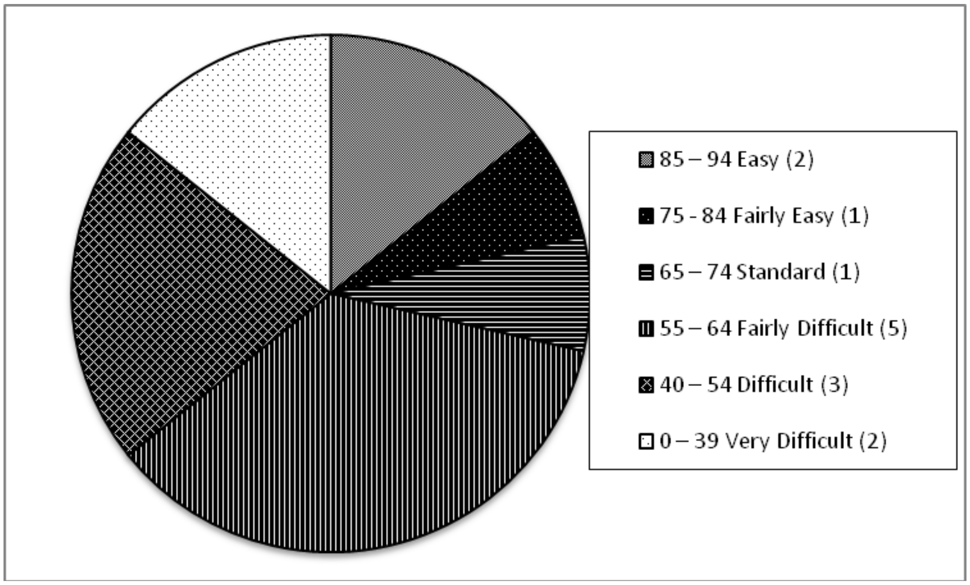

Figure 1 - Representation of the numbers of items analyzed that fell within each FRE level

Academic Health Publications

The analysis of the scholarly publications disseminated through the University of Alberta Libraries for consumption by students and healthcare practitioners differed somewhat from the analysis of the consumer health publications whose target audience was the general public. The analysis was not as focussed on the control of the production of these resources, as scholarly research articles do tend to be produced by academics or other individuals in positions of power or privilege, so the analysis of who was producing the information would not be as valuable for this set of data. Other, more relevant sites for analysis were instead selected, including the subjects of the articles and the keywords assigned, as well as whether the information was presented within an appropriate social and historical context.

Subjects and Keywords

As mentioned previously, the initial analysis consisted of the documentation of the keywords of the articles (as assigned by the authors or by the indexers), as well as documentation of the main subject as determined through analysis of the text. This analysis demonstrated that there were several differences between the databases in terms of the types of subjects covered by each database. As each article analyzed may discuss more than one topic (for instance, perhaps the article explored how education programs about substance abuse have demonstrated a positive correlation towards decreasing infant mortality rates) the number of articles sampled (20 per database) is not reflected in the number of subjects assigned. Examining the subjects of the articles sampled from each database allows us to see whether specific topics are more likely to be discussed within specific disciplines.

Subjects of articles as determined by the researcher

Subject	*CINAHL (N=34)*	*Healthsource (N=25)*	*Medline (N=29)*
Depression/Anxiety	8.8 % (3)	8% (2)	
Gestational Diabetes	14.7% (5)	8% (2)	3.4% (1)
Education Programs	5.8 % (2)		
Identification	2.9% (1)		3.4% (1)
Teen pregnancy	5.8 % (2)	4% (1)	6.9% (2)
Sexually Transmitted Infections/Genitourinary	5.8 % (2)	4% (1)	6.9% (2)
Substance Abuse	11.8 % (4)	8% (2)	3.4% (1)
Physical or Sexual Abuse	2.9% (1)	12% (3)	
Poor birth outcomes	11.8 % (4)	32% (8)	13.8% (4)
Infant mortality	2.9% (1)		3.4% (1)
Obesity	2.9% (1)		
Smoking	5.8 % (2)	4% (1)	13.8% (4)
Participatory knowledge transfer/research	2.9% (1)	4% (1)	3.4% (1)
Postcolonialism/Colonialization	5.8 % (2)	8% (2)	13.8% (4)
Access to healthcare	5.8 % (2)		6.9% (2)
Residential Schools	2.9% (1)		3.4% (1)
Diabetes		4% (1)	
HIV		4% (1)	6.9% (2)
Genetic testing			3.4% (1)
Community participation			6.9% (2)

Table 4 - Subjects represented in the sample of articles analyzed by database, where N represents the Number of occurrences.

It is interesting to note that within this sample, both CINAHL and Healthsource included several articles that dealt with mental health (depression or anxiety), but there were no articles in this sample from Medline that dealt with these subjects. This would support the theory that Medline, with its biomedical focus, may not present an image of holistic health which would be more in keeping with Aboriginal ways of being. Nadeau and Young stated that “Many healing initiatives that address the ‘problems’ of Native peoples, especially in the inner-city areas, fail to link individual suffering to the broader psychosocial conditions in which most live” (Nadeau and Young 2006, 90). Appropriate research initiatives with these particular populations should address health in a holistic manner, recognizing the psychosocial circumstances that may influence health. Consistent with the lack of articles dealing with mental health, there were also few articles in Medline that addressed physical or sexual abuse, which can potentially be linked with depression or anxiety. Interestingly, however, Medline did include multiple articles that dealt with postcolonialism or colonialization (4) and one that specifically dealt with the Residential School experiences that have left such a scar on Canadian Aboriginal communities.

It is also interesting to note that the only articles that dealt specifically with educational programs were retrieved from the CINAHL database. Perhaps this is because the discipline of nursing includes various specialities within it, one of which, the public health nursing program, is highly involved in public health education. This does not necessarily mean that health education is monopolized by the nursing profession, however, as both Healthsource and Medline do include articles that discuss knowledge transfer, and additionally, the sample of articles from Medline includes two on community participation.

The keywords indicated within the articles offer another facet for analysis. These are keywords supplied by the author or by an indexer, and are typically found within the article, after the abstract. Not all articles had keywords associated with them, but those that did typically listed several keywords.

Consistent with the findings from the analysis of the subject of the articles, there was a lack of articles related to issues of mental health in the Medline sample of articles, whereas both CINAHL and Healthsource each offered several articles on this general topic. Interestingly, however, despite this lack of focus on mental health (depression, anxiety, the Edinburgh Postnatal Depression Score test, and postpartum depression), the Medline sample of articles did include several articles that dealt with psychiatry and pharmaceutical solutions to mental illness. The findings from this sample are also consistent with the conjecture above that Medline, with its strong biomedical focus, may contain numerous articles that deal specifically with medical conditions in a manner that does not represent a holistic view of medicine.

Summarized Author/Indexer-Assigned Keywords of articles			
Keywords	**CINAHL (N=77)**	**Healthsource (N=50)**	**Medline (N=87)**
Depression/Mental Health/EPDS/Anxiety/Postpartum Depression	5.2 % (4)	6% (3)	
Psychometrics/Psychiatry/Psychotropics/Pharmaceutical Emplotment/High Prescribers	2.6% (2)		3.4% (3)
Women's health/Maternal Health/International Women's Health	2.6% (2)	2% (1)	2.3% (2)
Aboriginal/Aboriginal Women/Aboriginal People/Indigenous/Indigenous Population/Aboriginal Children	10.4% (8)	10% (5)	9.2% (8)
Australia/Australian Aboriginal/ Indigenous Australians	2.6% (2)	4% (2)	3.4% (3)
North American Indians/First Nations, Communities or Peoples/ Canadian Aboriginal Populations/Dogrib Peoples/ /Inuit/Métis	2.6% (2)	6% (3)	6.9% (6)
Culture/Cultural Background/Cultural Sensitivity/Translation	2.6% (2)		2.3% (2)
Aboriginal Health/Care, Indigenous Health Services	2.6% (2)		3.4% (3)
Clinical Practice Guidelines/Physician Education/Physician Practice Patterns	3.9% (3)	2% (1)	
Maternity Service/Urban Health Service/Obstetrical Care	2.6% (2)		3.4% (3)
Screening/Newborn Screening/Identification of infants	2.6% (2)		2.3% (2)
Abuse/Child Sexual Abuse	1.3% (1)	2% (1)	1.1% (1)
Sexually Transmitted Diseases/Sexually Transmitted Infections	1.3% (1)		2.3% (2)
Adolescent Pregnancy /Pregnancy in Adolescence	1.3% (1)	2% (1)	1.1% (1)
Substance Abuse/Fetal Alcohol Spectrum Disorders	2.6% (2)	2% (1)	2.3% (2)
Low birthweight/Preterm Birth/Birthweight	3.9% (3)	4% (2)	4.6% (4)
Morality/Kant	2.6% (2)		
Diet/Traditional Food	2.6% (2)		
Contraception/Prenatal Care/Preconception Care/Antenatal	6.5% (5)	6% (3)	2.3% (2)
Pregnancy/Pregnancy and Parenting	3.9% (3)	8% (4)	2.3% (2)
Labour/Obstetrics/Birthing/Childbirth	2.6% (2)	2% (1)	3.4% (3)
Breastfeeding/Infant/Postpartum Programs	3.9% (3)		2.3% (2)
Community Health/Rural/Downtown Eastside	2.6% (2)	2% (1)	
Knowledge Transfer/Task Shifting/Social Agency	2.6% (2)		1.1% (1)
Health Care Quality/Access/Equity/Evaluation	3.9% (3)		4.6% (4)
Residential Schools/Colonialization	1.3% (1)	2% (1)	
Health Impact/Population Health	2.6% (2)		
Medical Conditions and their Treatments (Gestational Diabetes Mellitus, High-risk pregnancy, HPA/Genotype/Distribution/,Neural Tube Defects/Encephalocele/Spina Bifida/Anencephaly, Folic Acid, HIV/Vertical Transmission/HAART, Hypoglycemia/CPT1 Variant/Fatty Acid Oxidation)	3.9% (3)	8% (4)	13.8% (12)
Smoking/Tobacco		4% (2)	
Low income/Poverty/Socioeconomic Factors		4% (2)	1.1% (1)
Qualitative Research/Community-based research/Participatory methodology/Feminist methodology/Community Participation/Video diaries/Photovoice	2.6% (2)	6% (3)	2.3% (2)
Health Workers/Midwives/Traditional/Aboriginal Midwives			5.7% (5)
Community/Partners			2.3% (2)
Pregnancy Outcomes/Perinatal Outcomes/Perinatal			3.4% (3)
No Keywords Assigned	7.7% (6)	18% (9)	6.9% (6)

Table 5 - Keywords represented in the sample of articles analyzed by database, where N represents the Number of occurrences.

An interesting difference in the two sets of data, subjects (determined through reading the articles, rather than subject terms assigned by librarians or authors) and author/indexer assigned keywords, concerns the topic of postcolonialism. Although in reading through the articles, two from the CINAHL sample, two from the Healthsource sample, and four from the Medline sample seemed to deal with some aspect of colonialization or postcolonialism, these terms were not widely applied as keywords by either the authors or indexers. There was a decrease in how many times these keywords were applied as compared to the number of times that the articles were deemed to be about this topic. Although colonialization, postcolonialism and neo-colonialism have been recognized as being factors that can (and do) influence the health of Aboriginal peoples, these terms were not consistently applied to the research published about pregnant Aboriginal women, even in those cases where the application of such a term would have been appropriate. This serves to silence the colonial context of Aboriginal peoples' health disparities. The keywords that are assigned to articles are intended to make them more easily found by researchers investigating those topics. In this case, although there were articles that dealt with issues of colonialism, these articles may not be easily found, as those terms were not assigned as keywords.

Representations of Contexts

Representations of contexts, social and historical, are very important in the field of critical discourse analysis. Whether the social and historical contexts that have produced certain situations are acknowledged and present in discourses will affect how the recipients of the texts interpret not only the text itself, but also the populations that the text is discussing. Therefore, if the contexts are not explicitly addressed, the health disparities or situations encountered by Aboriginal peoples may be interpreted as cultural or racial traits, as opposed to being interpreted as a result of a specific historical background involving a colonial past, and continuing neo-colonial practices.

Lack of Context

There were multiple articles within this sample that did not address cultural context at all, and as a result, the Aboriginal women portrayed within these articles were depicted in a potentially negative light. For example, the article by Angela Bowen and Nazeem Muhajarine on the prevalence of depression among a cohort of women attending a maternity outreach program in an urban centre, with inner city women, identified that 65% of the participants in this program were Aboriginal women, and that the goal of the outreach program was to "reduce maternal risk activities (e.g. smoking, drug and alcohol intake)" (Bowen and Muhajarine 2006, 492). They went on to report that those women who reported a lack of social support networks experienced a statistically significant increase in the postnatal depression scores than those women who reported adequate access to social supports (2006, 494). This article portrays Aboriginal women in such a manner that they appear to be at risk and socially disadvantaged. The authors offer no context that would explain their presence in urban centres, why these women would have moved away from their families and communities (possibly on reservations), or why they experience a lack of social supports. The women represented in this study seem to have no sense of or opportunity for agency, but instead present an image of a particular population in need of support by the dominant culture. Likewise, in an article exploring the differences in teen pregnancies between Aboriginal and non-Aboriginal young women in Australia, the authors present a series of decontextualized statistics regarding these young women.

> Aboriginal teenagers have a pregnancy rate more than twice as high as non-Aboriginal, but a smaller proportion of pregnancies are terminated. They have pregnancies earlier, are more likely to be single, to smoke during pregnancy, to have few antenatal visits, to give birth in a country hospital and to have infections and anaemia. They have lower induction and analgesia rates, but a higher caesarean section rate. Their babies are more likely to be small-for-gestational-age and preterm, to have a congenital abnormality, to require special and intensive nursery care and stay longer in hospital. While their perinatal mortality

> rate has halved since a decade ago, their neonatal death rate is still twice that of non-Aboriginal births" (Westenberg, et al. 2002, 187).

Presented in this manner, with no information to contextualize their findings, the reader is left to form their own opinions regarding causation. The only demonstrated link for these early pregnancies that go unmonitored by healthcare providers, result in infections and anemia, and have poor health outcomes is the ethnicity of the mother.

In a separate article reporting on a study on depression among Canadian women, authors Bowen, Stewart, Baetz and Muhajarine write that

> There are no comparable data on pregnant Aboriginal women, but it is known that women with low income and education are at an increased risk for depression; that the Aboriginal women in this study, like other Aboriginal women in Canada experience more social inequities; and Aboriginal people in Canada tend to experience more depression. Therefore, as expected, the prevalence of depression was higher in the Aboriginal women, but not significantly increased (2009, 415).

They go on to write that despite inequities such as lower socioeconomic status and increased prevalence of substance abuse, Aboriginal women tend to show remarkable resilience, and do not seem to have significantly more reportable symptoms of depression. Again, in this article, there is a lack of historical context to explain why certain inequities continue to be experienced by Aboriginal populations, or why substance abuse may be more prevalent within these populations than within the dominant society, although they do acknowledge the social inequities experienced by Aboriginal women.

When findings are presented without their relevant historical background, the information may be interpreted as a cultural characteristic. For instance, the statement that "Aboriginal women are much more likely to smoke during their pregnancy than non-Aboriginal women" (Heaman and Chalmers 2005, 304), does nothing to explain why Aboriginal women experience this particular health disparity (see also Gilligan et al. 2007, 664). Instead, smoking during pregnancy, with all its negative implications, is framed as a cultural characteristic, a pattern also repeated in the article by Carey, Mylvaganam, Rouse and Bower (2005) on risk factors for talipes equinovarus (club-foot) among Australian Aboriginal people, in which they state that the prevalence of smoking during pregnancy among Aboriginal women may be a risk factor for this birth defect (2005, 243). In the article by Heaman and Chalmers, the authors do go on to state that new strategies are required to engage with Aboriginal women in order develop culturally appropriate smoking cessation materials, as the current material may not be at an appropriate reading level, may not be culturally appropriate, or may not necessarily exhibit a holistic approach to health, involving family and community members (2005, 304), so the authors are making an attempt to signify that cultural sensitivity is required, but in order to display cultural sensitivity, one should explicitly acknowledge the colonial past and neo-colonial practices that help to give rise to the current health disparities experienced among Aboriginal peoples.

Similarly, in the article by Simmons, Khan, and Teale, the authors present specific behaviours with no context to explain why these behaviours may occur more frequently among Aboriginal populations. They state that,

> As in previous studies, behaviours known to be associated with a reduction in average birth weight were more common amongst Aboriginal mothers than the comparative group. Thus smoking, use of marijuana and excessive alcohol intake were all significantly increased among Aboriginal women in the present study" (Simmons, Khan and Teale 2005, 70).

Framed in this manner, smoking and substance abuse may be interpreted to be cultural characteristics, and these interpretations can serve as the foundations for negative perceptions of Aboriginal women by health care providers, which can cause barriers to equitable access to health care. Authors Smith, Varcoe and Edwards discuss this concept in their article on the implications of the residential school experience on the health of Aboriginal peoples. They wrote that specific health related policies and procedures may serve to support negative stereotypes if the root cause of health inequities are framed as a result of substance addictions and systemic violence, that,

> The underlying assumption is that characteristics of Aboriginal people actually explain increased rates of addiction and violence. When policies and practices are based on racialized explanations of health and social conditions, the result is unresponsive and unsafe services. Such racialized explanations may also be responsible for the pattern, among Aboriginal people, of poor access to and use of mainstream pregnancy and parenting programs (Smith, Varcoe, and Edwards 2005, 54).

These racialized, decontextualized representations of behaviours seem to be all too common (see also the article on sexually transmitted infections by Panaretto et al. 2006) even occurring where the authors seem to recognize the fact that their representations are inappropriate. Researchers Tough, Clarke and Cook state that "Although FASD is neither a racial nor a cultural problem, data from a few small studies suggest that FASD may occur at higher rates in Native/Aboriginal populations in Canada and in the United States" (2007,386), but provide no further information to contextualize why this may be the case. If the reader is not provided with sufficient information to determine other causes for the behaviours that produce Fetal Alcohol Spectrum Disorders (FASD), these behaviours may still be interpreted as cultural characteristics.

In their article on physical abuse during pregnancy, researchers Muhajarine and D'Arcy found that Aboriginal women were almost three times more likely to experience physical abuse during pregnancy than were non-Aboriginal women (1999, 1009), but they do go on to explain that their findings are not necessarily conclusive, as there are other considerations of which to be aware before forming causal linkages. They go on to state that "this higher risk was independent of the other risk factors (partner's drinking problem, higher perceived stress and lower social support). This finding must be interpreted with caution, however, because ethnic background is a complex variable that captures a wide array of social and cultural factors. We recorded the ethnic background of the abuse victim, not of the perpetrator. Knowing the perpetrator's ethnic background would probably shed more light on the association between this variable and abuse" (1999, 1011). It is interesting that while the authors do recognize that the variable that they are attempting to capture involves multiple sub-variables (the other social and cultural factors indicated above), they only suggest that they should have also explored the ethnic background of the abuser, rather than researching these other variables. Perhaps a more suitable area for research would have included exploration of more factors linked to the colonial past of the cultural group of which the abuser and the abused were part.

Appropriate Context

As mentioned previously, the presentation of historical and societal contexts can facilitate a deeper understanding of the circumstances that create health disparities, and can potentially lead to a different interpretation of the same information presented without the historical contexts. The danger in presenting information without context is that there is the potential that any potential problems or issues may be interpreted as cultural characteristics, instead of being a result of circumstance. For instance, in their work on factors influencing rates of adolescent pregnancies and sexually transmitted infections among Aboriginal youth in British Columbia, Devries, Free, Morison and Saewyc write that "The reasons for disparities in sexual health outcomes are not fully understood, and indigenous scholars stress the importance of colonial history, lack of access to health care services and socio-economic disadvantage" (2009, 226). By addressing these other factors (colonial history, access to healthcare, and socioeconomic conditions), the authors are presenting a more fully-developed image of Aboriginal youth, and the circumstances with which those youth must cope. Despite the fact that this is a very brief disclaimer, this statement allows the reader to understand these youth more fully, to recognize that there are other factors that influence their health disparities, and to attribute any behaviours to the conditions in which the youth must live, as opposed to positioning these behaviours as cultural characteristics.

Neufeld and Marchessault's 2006 article on Aboriginal women's perceptions of causes of gestational diabetes provides another example of how information can be framed in a manner that provides the reader with enough contextual information to understand some of the historical or social causes for obesity and diabetes among Aboriginal peoples. In their article, they state that, in Canada, modernization threatens not only access to traditional foods but also Aboriginal peoples' knowledge about traditional food systems and that since colonization, the resulting shifts in traditional lifestyles and diets have resulted in negative health consequences for Canada's Aboriginal populations (2006, 162). Their research with two different generations of Aboriginal women, examining their own perceptions of the causes of gestational diabetes mellitus (GDM) offers important insights into understanding Aboriginal women's own concerns.

> By presenting the voices of 2 generations of women, this study marks an important step in raising the consciousness of care-givers to the cultural idea systems operating within a community and may further understanding about the experience and emotional lives of patients. Changing lifestyle patterns associated with GDM also need to be placed in historical context, because they are a reflection of societal changes that have occurred in this Saulteaux community. Each of these changes, as the grandmothers described, can potentially influence health outcomes for local women and their children" (Neufeld and Marchessault 2006, 167).

Another example of a research study that explicitly links the historical and societal conditions as health determinants is that written by Freemantle, Read, de Klerk, McAullay, Anderson and Stanley (2006), in which they examined patterns and trends in infant mortality rates across Western Australia. They wrote that Aboriginal people experience numerous disadvantages resulting from a history of marginalisation that transcends multiple generations. It is this marginalisation, rather than being Aboriginal, that increases health disparities. They state that "Although social and economic differences do occur within the Aboriginal population, they seem to be weakly associated with outcomes" (2006, 1765). The article by Newman, Bonar, Greville, Thompson, Bessarab and Kippax on barriers to HIV treatments for Australian Aboriginal peoples also explicitly addresses the colonial history and continued marginalization that contributes to the health inequities experienced by the Aboriginal populations. They wrote of the importance of recognizing the multiple consequences of various forms of colonial actions, including dispossession, institutional schooling and childcare situations, and other governmental policies, consequences that Aboriginal people are still living with and that result in economic, social, and health disparities. "The continuing and pervasive marginalization of Aboriginal people is embodied in social discrimination, unemployment, poverty and lack of education, and contributes to high rates of alcohol and other substance abuse, domestic violence, crime and incarceration" (2007, S14), and that these factors must all be considered when discussing the health disparities that affect the Australian Aboriginal population.

Even those articles that are largely epidemiological in nature or that have a strong biomedical focus have the opportunity to include information about historical and/or societal contexts which can serve to create health disparities. In the article by Eades, Read, Stanley, Eades, McCaullay, and Williamson (2008), the authors explored factors affecting poor birth outcomes among Aboriginal infants. They wrote that

> Being raised in a mission or institution, high blood pressure before the index pregnancy, vaginal bleeding during the pregnancy and consumption of alcohol containing spirits at hazardous levels, were all shown in unadjusted analyses to be significantly related to birth outcome among the Bibbulung Gnarneep cohort. … This paper highlights the importance of care arrangements for children not raised by their own parents, the importance of high school level educational outcomes for Aboriginal women and the possible impact of the hardships caused by teenage parenting for mothers in this cohort whose mothers were relatively young themselves (Eades et al. 2008, 344).

Their findings explicitly confirm that the colonial past and neo-colonial practices of raising children in a mission or institutional setting are correlated to poor birth outcomes, rather than those poor outcomes being a result of cultural characteristics. Likewise, the article on gestational diabetes written by Dyck, Klomp, Tan, Turnell and Boctor (2002) is written from a biomedical perspective, and yet they include information about historical context. They write that "The 'hefty fetal phenotype' hypothesis attempts to explain how an ancient survival mechanism, which may have evolved to produce well-nourished infants, has become a modern liability leading to increased rates of GDM and an epidemic of type 2 diabetes in susceptible populations" (Dyck et al. 2002, 492). This statement acknowledges the fact that because of historical circumstances, Aboriginal peoples' bodies may have evolved to include this survival mechanism that is now incompatible with a modernized diet, resulting in increased rates of gestational and Type 2 diabetes. Without this information, if their findings were presented without context, this trend could be interpreted as a cultural characteristic, leading the reader to assume that Aboriginal people are just less healthy and less aware of dietary information that could help them prevent diabetes.

The inclusion of contextual frameworks can assist not only in a more appropriate interpretation of the portrayals of Aboriginal women, but it can also serve to explain some of the data. For instance, in a study by Campbell, Hayes, and Buckby (2008), the Edinburgh Postnatal Depression Scale (EPDS) questionnaire was studied and translated into terminology more appropriate for use with the Australian Aboriginal and Torres Strait Islander populations. This translated version of the EPDS was studied for its suitability in assessing perinatal depression among Aboriginal and Torres Strait women. The EPDS was not translated into other languages, but rather was translated into phrasing that better captured the meaning of the screening questions for Aboriginal and Torres Straight women. For example, where a standard question might read "I have been anxious or worried for no good reason" it was translated to: "I stress out for no good reason or I feel like I'm going wombat/wongie for no good reason" or "I worry too much and I don't know why" (Campbell, Hayes, and Buckby 2008, 126). This study recognized the linguistic barriers in attempting to apply a tool developed by the dominant culture across other cultural groups who may interpret words differently, which demonstrates respect and sensitivity towards Aboriginal peoples' linguistic and cultural differences, a requirement echoed by Harris, Meltzer, and Zinman in their article on diabetes (1998, 977).

In another article, this one on the identification of Aboriginal infants, the researchers present the argument that in order to develop culturally appropriate programming for Aboriginal infants and families it is necessary to gather more accurate data on the Aboriginal status of infants. Their findings demonstrated the benefit of ensuring that Aboriginal mothers had access to Aboriginal staff in the provision of healthcare services. "The active implementation of crosscultural awareness training to all staff in maternity care in the hospital, establishment of systems for accessing Aboriginal families through ODP [Obstetrics Data Package] data collection, and increased awareness of the importance of Aboriginal identification are supporting identification of Aboriginal families in the region" (Comino et al. 2007, 625). This demonstrates not only the necessity for culturally specific programming, but also the importance for the healthcare team to incorporate some members of the Aboriginal communities in order to facilitate Aboriginal women's access to healthcare services. The findings reported by Gilles, Dickinson, Cain, Turner, McGuckin, Loh, Prescott and French (2007) are consistent with this. In their research on the perinatal transmission of HIV among Australian Aboriginal people, they found that ethnicity is not a determinant of outcomes, but rather that access to equitable resources were linked to outcomes. They wrote that "Given the scarcity of information on the outcomes of Aboriginal people with HIV, these findings are important and provide evidence that if adequately resourced and culturally appropriate care is supplied with specialist back up and coordination, similar outcomes to those in non-Aboriginal metropolitan-based HIV-positive people can be achieved" (Gilles et al. 2007, 366).

Pertice Moffitt's article on the neo-colonial practice of evacuating pregnant Dogrib women from their home communities to a larger urban centre to deliver their babies provides yet another example of situating her research within fully developed historical and social contexts. She claims that as a result of colonialization (which includes loss of traditional lands, traditional ways of living and worldviews, the forced institutionalization of the community's children, etc), the Aboriginal people have been denied their traditional ways of being, and yet do not have an access to an alternate worldview.

> The Aboriginal people no longer have their traditional worldview nor do they have the Eurocentric worldview that was forced on them. They are caught up in a bitter state that is bolstered by the negativity of substance abuse, societal dysfunction, and family and community break-up. This jagged worldview offers no balance or order to life. Cultural and social control is lost. It is important for nurses to honor and respect the rich heritage of the Dogrib while acknowledging the historical impacts that have led to this jagged worldview. By enabling communities to regain their cultural identity, a healthy worldview will be aspired and help return balance and healing (Moffitt 2004, 325).

Moffitt very clearly positions this jagged worldview and societal dysfunction as a result of colonialization, drawing further connections between neo-colonial practices and continuing health disparities.

The research by Lalonde, Butt, and Bucio (2009) continues this exploration of how colonial practices have negatively affected the health of Canada's Aboriginal populations. They draw causal relationships between colonization and the deterioration of Aboriginal peoples' health. They wrote that from the point of contact forward, Aboriginal communities have suffered from health issues resulting from epidemics introduced by the European colonizers. "Compounding the problem of poor health even further is the historical trend of non-Aboriginal authorities taking control of Aboriginal health and continually transferring this control to other non-Aboriginal agencies when their efforts prove unsuccessful" (Lalonde, Butt, and Bucio 2009, 956). The colonial practices imposed upon the Canadian Aboriginal people, including the above-mentioned loss of control over their health as well as the residential school programs, have resulted in a loss of language and of traditional knowledge among Aboriginal communities. The authors state that this loss, the loss of traditional healing practices and of the healers themselves, has been the most detrimental for Aboriginal peoples (957), and that current healthcare policy development must involve incorporate traditional knowledge, cultural beliefs, and most importantly the participation of Aboriginal peoples themselves. "Through learning and sharing, the goal of such partnerships is to develop protocols and models of care that will enable Aboriginal mothers to stay in their communities for birthing, with the delivery of prenatal care in the mother's language of choice, and with respect for traditional prenatal and maternity methods" (Lalonde, Butt, and Bucio 2009, 960). This would result in a more culturally appropriate, holistic provision of healthcare for Aboriginal mothers and their newborn infants, and would also allow the community to celebrate the arrival of a new member.

The research presented in the article by Stamp, Champion, Anderson, Warren, Stuart-Butler, Doolan, Boles, Callaghan, Foale and Muyambi (2008) also explores how partnerships can be formed in order to provide culturally appropriate pregnancy care and childbirth experiences for Australian Aboriginal women. In their article, the authors present research that they conducted with midwives and the Aboriginal healthcare providers that they work with. The authors wanted to explore how the women felt about their roles in an inter-cultural partnership, and how these healthcare providers felt about the services that they offered to pregnant Aboriginal women. One of the Aboriginal women who provides care as part of the healthcare team stated that

> "*… I think non-Aboriginal people and Aboriginal people working together is a good way. Non-Aboriginal people can't offer the service without us, but we can't do it without them either… the clinical knowledge that we learned from the midwives, you know, without that, we couldn't do our work properly. But the same thing, they couldn't do it without us because they need our cultural knowledge. They need to know the way we deal with people. And I think the good thing is this; they teach us the clinical way and we teach them the cultural way. So it just works really well like that and in the partnership, between the hospital and Pika Wiya* [Aboriginal Health Service]. *That's the way it should be. That's the way it can work, you know, you feel like you can make a difference for our people if we work that way*" (Stamp et al.2008, 5-6).

Partnerships such as these can provide opportunities for clinical knowledge and cultural awareness to intersect and provide the best possible care for Aboriginal women, their children, and their communities.

Collocations of Terms

When critically analyzing texts, Fairclough urges the analyst to assess the features that characterize the discourses which are drawn upon, the semantic relations between words, collocations, metaphors, assumptions, grammatical features, etc. (Fairclough 2003). One of the features specifically examined in this analysis was the collocations of terms. Each article was analyzed individually to determine which words were collocated with the term “Aboriginal.” In addition to providing a site for the individual analysis of each article, the collocation of terms was also analyzed in tabular form for each database, in order to determine whether specific collocations were more likely to be found within the Nursing discipline (as represented by the CINAHL sample), within the biomedical-focus (as represented by Medline), or within the Healthsource sample, which is described by the University of Alberta Libraries as “...focussing on many medical disciplines...” (University of Alberta Libraries, Health Source).

It is interesting to note that within this sample of articles analyzed, the terms that are collocated with the term “Aboriginal” (see Table 3) do not seem to indicate any particular tendency based on database (and therefore based on discipline). However, the analysis of the individual articles did yield some interesting results, for instance, the article by Eades et al. (2008) very obviously avoided terms related to vulnerability or high risk, but instead spoke of outcomes and potential causal pathways. This article explored poor health outcomes among urban Australian Aboriginal peoples, and seemed to be consistent with the emphasis on cultural safety that was found among some of the other articles written by Australian researchers (Campbell Hayes and Bucky 2008, Comino et al.2007, Stamp et al 2008.). This is not to imply that terms related to the concept of cultural safety were unique to those articles published within an Australian context, however, as there were several examples of articles published by Canadian authors that also demonstrated cultural awareness as reflected in the collocation of terms. For example, the article published by Lalonde, Butt and Bucio listed the following terms collocated with the term “Aboriginal”: community; control; traditional knowledge; responsibility; ways of living; healing; culture; tradition; HIV; and leadership.

Collocations of terms			
Terms	**CINAHL (N=86)**	**Healthsource (N=155)**	**Medline (N=107)**
Aboriginal and smok* (or passive smoking or substance-using)	1.1 % (1)	17.4% (27)	0.9% (1)
Aboriginal and socially disadvantaged (or low socioeconomic status, low income, low education, poverty, or disadvantage)	4.7 % (4)	5.2 % (8)	2.8 % (3)
Aboriginal and risk (or high risk, or problems)	22.1 % (19)	17.4% (27)	10.3 % (11)
Aboriginal and collaborat% (or partner*, consult* or include)	14 % (12)	1.3 % (2)	8.4% (9)
Aboriginal and disparity(ies) (or inequities, health discrepancies, adverse outcome, poor health, outcomes, poor outcomes, birth outcomes, or health status)	9.3 % (8)	5.8% (9)	10.3 % (11)
Aboriginal and perception (or belief, philosophy, worldview, or holistic)	5.8% (5)	1.9% (3)	0.9% (1)
Aboriginal and ways of being (or cultural values, heritage, identity, thought, tradition, sacred identity, traditional knowledge, ways of living, culture, or knowledge)	2.3 % (2)	8.4% (13)	13.1 % (14)
Aboriginal and self-determination (or control empower*, priorities, interests, or healing)	1.1% (1)	2.6 % (4)	4.7 % (5)
Aboriginal and community(ies)	4.7 % (4)	1.9% (3)	31.8% (34)
Aboriginal and colonization (or colonialization, domination, marginaliz*, stigmatized, outsiders, racism, “objects of scrutiny”, exclusion, assimilation, or vulnerable)	1.1% (1)	7.7 % (12)	4.7 % (5)
Aboriginal and pride or respect	1.1% (1)	0.6% (1)	0.9% (1)
Aboriginal and patients (or diabetes, or HIV)	31.4 % (27)	18.1 % (28)	0.9% (1)
Aboriginal and infant mortality (or mortality, perinatal morbidity, or mortality rate)	1.1% (1)	3.2 % (5)	5.6 % (6)
Aboriginal and abuse		1.9% (3)	
Aboriginal and interventions		1.3 % (2)	
Aboriginal and barrier (or access)		1.3 % (2)	1.9% (2)
Aboriginal and stress		3.2 % (5)	
Aboriginal and leader or leadership		0.6% (1)	0.9% (1)
Aboriginal and cultural safety or advocate			1.9% (2)

Table 6 Collocated terms found in the sample of articles analyzed by database, where N represents the Number of occurrences.

The types of vocabulary found collocated with the term “Aboriginal” can provide a great deal of insight into the manner in which the articles treat Aboriginal people, and the possible perceptions that may be formed on the part of the receptors upon reading these collocated terms. For instance, the above mentioned article by Stamp et al. 2008, lists the following terms collocated with the term “Aboriginal” in their article on Aboriginal maternal and infant care providers: partner*, cultural safety, mortality rate, birth outcomes, high risk, consultation, communities, advocate, literature, and knowledge. Contrast that to an article by Freemantle et al. 2006, in which the terms disparities, risk, partnership and disadvantage are collocated with the term “Aboriginal” as the authors present their research on infant mortality rates in Western Australia. This second set of terms portrays an image of Aboriginal peoples that creates the impression that they lack agency and involvement in the provision of their own healthcare, and with the exception of the term partnership (which was collocated with the term Aboriginal once, as opposed to a combined total of 14 occurrences of the other terms), the remaining terms all tend to be quite negative. The terms that Stamp et al. and that Lalonde et al. have used in collocation with the term “Aboriginal” result in a different mental model of Aboriginal people and of their health status than do the terms used by Freemantle et al..

While the collocation of terms by discipline (as evidenced by database) did not yield any relevant findings, the analysis of collocated terms within individual articles presented very interesting results. Clearly, some authors were very conscious of their choice of terms and of the resulting mental models that those terms could create in the minds of their readers, and attempted to ensure that the terms that they chose to use in association with the term “Aboriginal” were as positive as possible, or served to contextualize any health or societal issues facing that particular population. Other authors have used terms that either remove Aboriginal people’s agency (terms such as patients, disadvantaged, etc), or that reinforce negative mental models of Aboriginality (terms such as substance-using, abuse, smoking, etc). The choice of terms that are used is not only a reflection of the authors’ own understandings of what it means to be Aboriginal, but that choice also serves in the creation of mental models of Aboriginality in the minds of the readers, many of whom would be healthcare providers or students learning to be healthcare providers. How will these terms be received by the readers, and how will their perceptions of Aboriginal peoples affect the way that they interact with Aboriginal people throughout their careers in healthcare?

Representations of Actors

How people are portrayed is also an important site for analysis. The terms Indigenous and Aboriginal do not represent a single homogenous body of people. Within the Canadian context, the term Aboriginal is used as an umbrella term which is intended to include First Nations Peoples, the Métis and the Inuit. Within these groupings are also other cultural groupings. Whether or not these distinctions are made by the authors of the publications is important, because what applies to one grouping may not necessarily apply to another, and so it is important not only to explain what is intended by the terminology used within an article, but also to recognize the fact that these groups are not homogenous parts of a whole, and that the findings that pertain to one group may not be transferrable to another. The article by Wenman, Joffres, Tataryn and the Edmonton Perinatal Infections Group (2004) provides an example of how to appropriately explain who is included within the term "Aboriginal" and to draw attention to the fact that there is a lack of research comparing different Aboriginal groups. In their article on risk factors and birth outcomes among Aboriginal women, they wrote that "In addition, although the term "Aboriginal" refers to a heterogeneous population comprising First Nations people, Métis and Inuit, there are few comparisons between specific Aboriginal groups or of Aboriginal groups with the general population" (Wenman et al. 2004, 585). Lalonde, Butt and Bucio also recognize that the term Aboriginal is an over-generalization, as it encompasses multiple groups from different geographic regions, historical contexts, and linguistic and religious backgrounds (2009, 956).

In their article on developing a translated version of the EPDS for use among Australian Aboriginal people and Torres Strait Islanders, Campbell, Hayes and Buckby write that "It is important to note that the development of psychometrically sound instruments for use with Indigenous populations needs to take account of the heterogeneity of the Indigenous population" (2008, 130). The researchers caution that these translated tools do not represent a "one size fits all" solution, and that while these tools seemed appropriate within the specific communities for which they were developed, they were developed with community participation, and that if a similar tool is required for another community, then that community should be involved in the development of that tool.

Ideological Positions

Another facet that should be considered in critical discourse analysis is whether or not the articles sampled denote a particular ideological position. Those that are written from a post-colonial or anti-colonial worldview are much more likely to be written in a culturally appropriate manner. Those articles that convey a positivist or biomedical viewpoint will likely reflect the belief system of the dominant society, rather than that of the Aboriginal peoples who tend to view health more holistically. Lalonde, Butt and Bucio wrote that being healthy means more than being free from disease, that health also encompasses ties to culture, to religion and spirituality, and to socioeconomic status (2009, 962), factors which are not often addressed within the biomedical model.

An interesting article by Fuery, Smith, Rae, Burgess, and Fuery (2009) explores the concept of morality and duty to act to assist in areas where health disparities are known to exist. They wrote that "At the heart of what follows lies a fundamentally ethical issue which can be described (with some caveats) as embedded in the following questions: if one recognises a severe, desperate, and ongoing medical and cultural situation which prejudicially impacts on the health and well-being of a section of society how compelled are we to act? And in that compulsion what is to be deemed permissible? Where do the complex decisions regarding issues of consent and intervention lie? What are the roles and duties of the health worker and doctor?" (2009, 36). Their article invokes Kant's ideas on society's responsibility to take action, and the principles that propel people to proceed with their attempts to assist that section of society experiencing crisis.

Their study involved the use of video diaries and photovoice (expression through digital photography) to allow Aboriginal peoples the opportunity to enter into dialogue with the researchers and with other Aboriginal communities in order to explore issues deemed important by the Aboriginal people themselves. This would position the arts as a mediating technique between the identification of health issues and educational material on health matters, and would allow the participants the opportunity to engage with health information in a manner that was more meaningful and holistic, enabling them to first identify their own priorities, and secondly to make their own meanings from health information related to those issues that they have prioritized. "In particular, the project aims to use versions of video diaries, narrative processes, and the visual representation of the ideas as they are understood and devised by the participants" (Fuery et al. 2009, 43).

The article by Smith, Edwards, Martens and Varcoe (2007) provides another example of an article that explicitly places itself within a particular ideological worldview. In this article, the authors explored the perceptions of Aboriginal communities' stakeholders in order to better understand how the communities viewed their own access to health care and what aspects of care they felt were appropriate and made a difference for their people's health. Through this work, they demonstrated a very definite ideological position. They wrote that "Critical postcolonial perspectives provide insight into participants' experiences within the struggle to understand, deconstruct, resist and transform the impact and institutions of colonialism. Both postcolonial and participatory research perspectives are inclusive of different value systems, sensitive to differences, view all forms of knowledge as valuable, and seek to generate knowledge that is relevant to stakeholders and useful for solving practical problems" (Smith et al. 2007, 322). By assuming such an ideological stance, the authors can ensure that the information generated through their research will be more culturally appropriate, and therefore more likely to serve to improve the health disparities experienced by Aboriginal communities, rather than providing the opportunity for future sites of neo-colonial practice.

A postcolonial ideological stance can also manifest itself in how the research was carried out, whether Aboriginal community members were invited to participate in the research design and/or analysis. The research conducted by Heaman, Blanchard, Gupton, Moffatt and Currie (2005) has a postcolonial viewpoint, as these researchers involved members of the Aboriginal community in their data analysis. They stated that the researchers requested the assistance of Aboriginal healthcare providers for the interpretation of the findings of their research, which was... "In keeping with the vision of the Aboriginal community of empowering individuals and families to increase their control and influence over issues, programmes, and decisions that affect their lives," (Heaman et al. 2005, 184). This type of practice helps to safeguard against neo-colonialism, so that research and medical practice need not continue to contribute towards health disparities. This approach is also advocated by Amy Salmon, as described in her 2007 article on using participatory research methods to mitigate the risk of committing additional neo-colonial injustices through the research process. Salmon found that involving Aboriginal participants in the analysis is of benefit not only to the participants, but also to the researcher. "By incorporating the stories and voices of young urban Aboriginal women, this method can also help to prevent the all-too-common misrepresentation and appropriation of women's experiences, which amounts to neo-colonialism in Indigenous-White research relations" (Salmon 2007, 983).

Yet another ideological viewpoint demonstrated in some of the research is that which outright rejects the mainstream biomedical focus of the dominant society, and deliberately places the holder in a marginalized position in order to demonstrate its anti-colonialism. This is evident in the 2009 article written by Michael Oldani, in which he explored the beliefs expressed within a Native Healing Circle when discussing Fetal Alcohol Spectrum Disorder (FASD) and the use of pharmaceuticals in its treatment. He wrote that,

> On the day that Marie introduced me to the first group of participants in a healing circle, I told the group I was in Winnipeg to 'learn more about the use of stimulants and psychiatric drugs to treat Aboriginal children with ADHD or FASD,' which I started to

> explain in more detail. The group became very quiet (perhaps wondering if I should be part of the circle in the future), when Dorothy broke the silence, pointed a finger at me and told the group: ‘I would never use those drugs again in my children, they are nothing more than residential school in a bottle!’” (Oldani 2009, 143).

This woman went on to explain that her son had been labelled by his school as having FASD without a medical diagnosis after the principal of the school spoke with her about her experiences during her pregnancy, and when she admitted to having consumed alcohol during her pregnancy, her son was categorized as an FASD child. This led her to fear that the school could notify the provincial government in order to have her children removed from her care. They also wanted to prescribe her son with psychotropics (drugs which alter brain function) in order to control his behaviour. She had previously seen the effects of Ritalin, when one of her younger children was placed on it, and she stated that “‘He just sat there and did nothing . . . It was like his spirit was gone.’ Dorothy felt it had changed who he was as a person – ‘killed his whole spirit.’ This is another estranged, yet terrifyingly alien script, of past residential school policies and practices: (re)shaping Indian behavior and changing their personhood” (Oldani 2009, 148). Because of this, Dorothy refused to consent to prescribing psychotropics for her other children, and has resisted the push from the dominant society to (chemically) alter the behaviours of her children. Oldani also alludes to the fact that parenting practices and the behaviours of Aboriginal children has traditionally represented a site for colonial practices, from the residential schools, to the mission experiences.

On the other end of the ideological spectrum are those articles that present a positivist ideological position that assumes that scientific fact has priority over other knowledge systems. These articles tend to reinforce the Western scientific belief in body-mind dualism, and the ability of science to remedy all problems. This is the ideological position demonstrated in the article by Bower, D’Antoine and Stanley, examining the rates of neural tube defects (NTDs) in Australia. They wrote that “Aboriginal Australians have a higher rate of NTD, especially spina bifida and encephalocele" (Bower et al., 2009), and that among the Aboriginal population there has been only a small (10%) reduction in the incidence of NTDs in response to health promotion endeavours and voluntary supplementation of folic acid, whereas the general population experienced a significant reduction in NTDs in response to the same campaign (272). The fact that the public health campaign apparently failed to reach the Aboriginal population was a significant factor when the Australian government began considering mandatory fortification, which was officially approved in 2007 (272). In this case, scientific data has resulted in a specific government policy that will see a scientific solution applied, likely without the knowledge or consent of the population for whom the remedy is being sought. Their study focussed on information provided through the Australian Birth Defects Registry, so it contained no analysis of educational programs offered to increase knowledge or awareness of the importance of folic acid during pregnancy. There seems to have been no research conducted to determine why there was a decrease in NTDs among the general population but a lack of a corresponding decrease among the Aboriginal population. Apparently, the education programs produced were meaningful for the mainstream, dominant population, but rather than seeking to explore why the same message was not absorbed by the Aboriginal population, the government chose to implement a policy requiring the mandatory fortification of flour with folic acid, imposing their solution on the entire population, rather than engaging in meaningful dialogue with the Aboriginal population, which can be interpreted as an example of a neo-colonial process.

Yet another example of neo-colonialism is provided in the article by Jacoby, et al.(2008) on passive smoking and the occurrence of otitis media (commonly known as an ear infection). Their research followed a cohort of Australian children (both non-Aboriginal and Aboriginal) from birth to the age of two, and involved research into the families' demographics, smoking habits, and the children's experiences with ear infections. They found that children who were regularly exposed to passive smoking from smokers within their homes were more likely to experience ear infections, and that this factor was more prevalent among Aboriginal children than among non-Aboriginal children (601). The authors do draw attention to the fact that European colonization and continued social marginalization are factors that may have resulted in the limited successes of smoking cessation programs within Aboriginal communities, and yet they go on to advocate that in order to minimize Aboriginal children's exposure to an environment contaminated with smoke, that these children be placed within institutional childcare settings where the adults would not be smoking, as they did find that for those children who were exposed to smoking in the home, those who attended childcare facilities had decreased occurrences of otitis media (602). They write that "Children who are exposed to ETS [Environmental Tobacco Smoke] in the home environment and who also attend a childcare facility will have less exposure to ETS than children who do not attend childcare and who live with smokers; therefore childcare may be beneficial for some children" (Jacoby et al.2008, 599). Their proposed solution is two-fold, the first of which is to involve Aboriginal people in the design of smoking cessation programs, which is culturally appropriate, but the second recommendation, that of displacing Aboriginal children from their home environments (in which they are exposed to environmental smoke) into institutional childcare settings is yet another example of neo-colonialism, and harkens to the residential school experience implemented within Canada.

Conclusion

Pregnancy publications, both those produced to meet the information needs of pregnant women (consumer health publications) and those produced to inform their healthcare providers (scholarly publications), present many different images of pregnant Aboriginal women. Analysis of these materials encompassed different facets for the consumer health publications versus the scholarly articles, as there were aspects of each that were not as relevant to the other.

Analysis of the consumer health publications involved an examination of the following aspects: who controlled the production of the information; whether any particular ideologies were embedded within the publications; how the actors were represented within the publication; and readability assessments to indicate how accessible the text would be for the general public. Analysis of the scholarly publications differed somewhat, as the following facets were analyzed: subjects and keywords; whether the information presented was depicted within an appropriate context; the collocation of terms; representations of actors; and ideological positions.

Through this research, a deeper understanding of whether and how Aboriginal women are represented in discursive items related to pregnancy has been achieved. This understanding can serve to inform readers who will be consuming these texts and the concepts presented within them, as well as the producers of future publications on pregnancy generally, and pregnancy and Aboriginal women more specifically. Readers need to be aware of the opportunities for discourse to be presented in such a manner that it can reinforce negative mental models of Aboriginality, which in turn reinforces social control by the dominant portions of our Canadian society, so that these readers may choose to interpret the texts differently. Likewise, authors need to be made aware that the information they present is not neutral, but that it contains the potential to serve as a site for the continued neo-colonial treatment of Canada’s Aboriginal populations, so that these authors can choose to present their information in such a manner that damaging mental models and perceptions are not perpetuated through their works.

CHAPTER FIVE

Conclusions

Introduction

Given that Library and Information Science is a field that is concerned with information seeking behaviours generally, and given that the field of health information seeking behaviours is important not only to the field of Library and Information Studies but also to studies of healthcare, the provision of appropriate information related to matters of health is a valuable site for research. This study was conducted with the goal of examining sources of health information related to pregnancy in order to better understand whether Aboriginal women were represented in these sources, where they were represented how they were being portrayed, and whether the information was constructed appropriately for Aboriginal audiences.

This study was conducted using Critical Discourse Analysis (CDA), one facet of which is concerned with the power-dynamic that unfolds in the control of dissemination of information. CDA recognizes that not all individual members of a society have equal access to resources, including to those resources related to the dissemination of discourses. These unequal power relationships can foster environments in which specific discourses are promoted while other competing discourses are suppressed.

Consumer Health Publications

The pregnancy publications produced to meet the information needs of pregnant women were largely under the sphere of control of the medical community, either by individual healthcare providers (some of whom were writing under the guidance of professional associations, as evidenced by Schuurmans, Senikas and Lalonde’s book, which was funded by the Society of Obstetricians and Gynaecologists of Canada and which therefore also followed their clinical guidelines), or by healthcare institutions themselves, as with the leaflets distributed by Alberta Health Services, or the book produced by the former Calgary Health Region. Some of the publications were produced by special interest groups, such as Smoke-Free Families, AADAC or Success by 6®, but of all of the resources analyzed, only one represented a rejection of the commonly accepted medicalization of childbirth. This lone publication, *Birth issues*, was the only one whose main contributors comprised women writing of their own personal birth experiences. Other books (the *BabyCenter Essential Guide* and to a lesser extent the *What to Expect* book) did include some questions from women, or some comments that women had submitted to them, but with both of those books, the majority of the information produced was under the influence of medical experts, and the opportunities for women's voices to be heard were limited.

In Couchie and Sanderson's 2007 article on the neo-colonial practice of evacuating pregnant Aboriginal women from their home communities in order to have them deliver in an urban setting, the authors state that their focus is "...not the specific historical conditions of any group or culture but the need to assist communities to retain or restore what is important from their own birth traditions without losing the benefits of modern obstetrical practice" (Couchie and Sanderson 2007, 250). In order to accomplish this, a venue must be established in which women's voices can be heard. Currently, the control of the production of information is such that Aboriginal women's voices on matters of pregnancy and childbirth are suppressed, and the discourses that dominate are those provided by the medical community.

As a result of this predominance of control by members of the medical community, the prevalence of the biomedical model and positivist ideologies among the work presented was not surprising. Some of these works presented their information in such a manner that conveyed the impression that should women choose to do other than what was recommended, they would be deemed to somehow be less-fit mothers, especially in the case of alcohol or substance use, or with smoking. Nevertheless, there were some other ideologies also represented within the sample analyzed. Clearly, the *Birth issues* magazine represented an ideological stance that rejects the biomedical model in favour of promoting natural childbirth. Likewise, the book by Boyd and Marcellus on harm-reduction portrayed a different ideology, one in which women were supported holistically, and substance-use was recognized as a single facet of a woman's life, as opposed to being the focus for intervention (and possibly child-apprehension) by the state or policy-makers.

The representations of the women within the publications was also analyzed, as women should be able to see themselves and their experiences reflected in the works they read, in order for that information to be more meaningful to them. The representations of women in the consumer health publications varied hugely, from the biomedically-focussed leaflets, which described signs, symptoms, and treatments, and did not seem to discuss women at all, to the *Birth issues* magazine, which focussed entirely upon the woman and her experiences and was written in the woman's own voice. Many of the publications clearly tried to include images of women from as many cultural backgrounds as possible, while others portrayed images of white women almost exclusively. Interestingly, the only two occurrences of Aboriginal women appearing on the cover of a publication were for a publication dealing with smoking cessation and another dealing with Fetal Alcohol Syndrome. It is unfortunate that if an Aboriginal woman were to be browsing the covers of these publications, the only two representations of her culture that she would immediately encounter would be two that serve to reinforce negative stereotypes of Aboriginal women.

The last aspect of the consumer health publications that was analyzed was the readability of the texts. While readability assessments do not factor in specialized knowledge or interest, it was nevertheless very interesting to find how difficult many of these texts were to understand. Most required a fairly high reading proficiency, with only four publications being listed as easily understood or standard, while the remaining eleven publications ranged from difficult to very difficult to read. It was especially interesting to find that the items which one would assume would be easily read, such as the leaflets produced by Alberta Health Services and the *For Dummies* book, were often written in such a manner that they were not very accessible for the general population. Consumer health publications should be written in such a manner that they can be read and understood by the targeted audience, in this case, pregnant women from all walks of life and reading ability levels. By presenting this information in such a manner that only a select portion of the population can read and understand them is yet another example of how the elite members of society can control discourses and access to information.

The four facets of these publications that were considered for analysis, who controls the publication of the information, the ideologies presented within those publications, how the actors are represented, and the readability level at which the information was written, offer many insights into the discourses available to women seeking more information about pregnancy and childbirth. From this analysis, it is clear that control of information production regarding pregnancy is still very much within the hands of the medical community, who use their access to discourse to promote their ideological positions of biomedical supremacy and positivism, a one-size-fits-all approach to healthcare provision. The representations of Aboriginal women within these publications still have the potential to be problematic and to reinforce negative stereotypes about Aboriginal women (as with the smoking cessation and fetal alcohol syndrome publications), as does the readability of the publications, many of which were obviously written for an audience with very strong literacy skills.

Conclusions

The sample of consumer health publications produced for pregnant women that was analyzed in this study does not necessarily represent Aboriginal women sufficiently and/or appropriately. The control of pregnancy-related discourses remains largely in the hands of the medical community composed of scientific experts, while the voices of expecting or newly-delivered women who reject the dominant medicalization of childbirth remain on the margins. In keeping with this trend, the ideologies presented in the majority of the publications seem to represent a biomedical model and a positivist (and at times judgmental) position towards perceived non-compliance with clinician-approved best practices. Representations (textual or visual) of Aboriginal women within these publications are limited, and where they do occur are not necessarily appropriate, and may serve to reinforce negative stereotypes of Aboriginal women. Additionally, the readability assessments show that these publications are often written for a fairly advanced state of literacy, which may render them inaccessible to individuals who struggle with reading, or for whom English is a second language. These are all factors that could be addressed in the future production of information sources for pregnancy generally, but specifically for those sources of information for Aboriginal women.

Academic Publications

The first facet of the scholarly articles that was analyzed related to its findability – that is, the subjects of the articles and the assigned keywords were analyzed. The subjects were determined by the researcher upon reading each article, while the keywords were assigned by the author and indicated within each article. The articles were analyzed individually, while the results of the analysis were also examined by database in order to determine whether specific disciplines produced information differently.

Subjects and Keywords

The samples analyzed from each database did provide some interesting results that spoke to the theory that information is constructed according to practices specific to each discipline. For instance, the finding that issues of mental health and wellbeing were not represented within the sample collected from the Medline database is in keeping with its biomedical focus, although the Medline sample did include articles related to the prescription of psychotropics and pharmaceuticals for behavioural issues among Aboriginal children. Likewise, CINAHL was the only database to contain information related to education programs, which is consistent with nursing's public health education initiatives. Also interesting, and very positive to note, was the fact that all three databases contained articles that addressed themes of colonization, postcolonialism or the Residential School experience. This indicates that despite Medline's focus on body-mind dualism, there is a growing recognition that factors associated with colonialism can play a role in health outcomes for Aboriginal peoples. It was also interesting to note, however, that although the Medline sample contained articles dealing with these themes, that there was a lack of keyword indexing to point to those themes. Keywords provide another access point for researchers attempting to find material on a given subject, and are important for effective information seeking. That these articles were not indexed accordingly may render them more difficult to retrieve.

Contextual Information

The appropriate contextualization of information is a key facet for analysis, as a lack of context may result in information being misinterpreted as a cultural trait. Amy Salmon, in writing of her experiences conducting participatory research with Aboriginal women wrote that, "As I learned from the women who participated in the group interviews, social, economic, and historical contexts are important for understanding the conditions under which Aboriginal people with FAS/FAE live, the ways in which women who give birth to and mother them come to be viewed and responded to as "social problems," and the broad implications of FAS/FAE prevention policy in Indigenous communities" (Salmon 2007, 992).

Unfortunately, there were many articles within the sample analyzed that did not offer appropriate contexts for the information being presented. In many instances, Aboriginal women were described as being more prone to substance use (or abuse), to poverty, alcoholism, adolescent pregnancy, or poor birth outcomes (see Gilligan, Sanson-Fischer, Eades and D'Este 2007, or Heaman and Chalmers 2005, or Carey, Mylvaganam, Rouse and Bower 2005, or Simmons, Khan, and Teale 2005). Aboriginal mothers were described as being more likely to enter into prenatal care later in their pregnancies, to be more likely to experience physical abuse, and to experience higher neonatal mortality rates (see Muhajarine and D'Arcy 1999, or Westenberg et al. 2002). Where these findings are presented without sufficient information to contextualize why these issues may be more prevalent among Aboriginal women than in the remainder of the dominant society, the reader is left to draw their own conclusions as to why these discrepancies occur. When the only variable presented is Aboriginality, it would be easy for the reader to come away with the perception that these issues must be caused by the women's Aboriginal status, and that they are therefore cultural characteristics.

Despite the numerous articles that presented their findings decontextualized from any social, historical, or economic factors which could lead readers to misinterpret these findings as cultural characteristics, there were also numerous articles that did present appropriate contexts for their information. Certainly, one of the most important aspects to include when discussing the contexts in which Aboriginal people live and therefore in which they experience any health disparities is that of colonialism, and the manner in which that has negatively impacted the health of Aboriginal communities, and there were many articles that discussed this explicitly. Authors Freemantle, Read, de Klerk, McAullay, Anderson and Stanley (2006) appropriately contextualized their findings thus: "Our findings draw attention to the increasing disparities in death rates between Aboriginal infants and their non-Aboriginal peers, which provide an important indicator of the overall health and wellbeing of Aboriginal communities and the long-term effect that racism, discrimination, and dispossession have had on Aboriginal people. Moreover, high IMRs [infant mortality rates] in marginalised, disadvantaged minority populations indicate the stresses and challenges these communities face, not only at the moment of birth and in the first year of life, but throughout the entire lifecycle and from one generation to another" (Freemantle et al. 2006, 1765). Framed in such a manner, it becomes clear to the reader that the increased infant mortality rates are less a result of the Aboriginal status of the parent, and more a result of systemic marginalization and discrimination that Aboriginal people are more likely to have to cope with.

Framed within an appropriate context, health disparities such as increased rates of diabetes (Neufeld and Marchessault 2006, or Dyck et al. 2002), poor birth outcomes (Eades et al. 2008), or perinatal transmission of HIV (Gilles et al. 2007) are not as likely to be perceived of as cultural traits, but rather as outcomes that result from specific historical, societal, or economic contexts, an important distinction, as the mental models constructed through the consumption of these texts will also be a factor in how individuals perceive and treat Aboriginal people that they encounter throughout their careers. Nadeau and Young found that may Aboriginal people live in a state of psychosocial trauma, which is described as "... trauma that is foreseeable and predictable; it affects an entire network of social relations. As long as dehumanizing social relations continue, the symptoms of trauma remain both in individuals and in communities. It is only in changing the social relations between colonizer and colonized that psychosocial trauma can be alleviated" (Nadeau and Young 2006, 91). By critically analyzing the discourses that dominate our society, these social relations can be addressed and hopefully changed for the better, in order to alleviate this state of psychosocial trauma.

Collocations of Terms

Much as the presentation or suppression of contextual information can affect how readers perceive and interpret information presented in discourses, so too can the terms used in conjunction with the term "Aboriginal." This research demonstrated that while some authors very studiously choose terms that denote agency or other positive traits (words such as consultation, partnership, healing, traditional knowledge), other authors used terms that conjure up negative mental images or reinforce negative stereotypes about Aboriginal people (words such as risk, disparities, smoking, or problems). There did not seem to be any correlations between the collocated terms and the disciplines in which the authors published their articles, but rather all three databases contained multiple examples of terms that were more likely to reinforce certain stereotypes or terms that resulted in positive perceptions of Aboriginal peoples.

Representations of Actors

Within the scholarly articles, analysis of the representations of the actors focussed on whether or not all Aboriginal people were treated homogenously, and how they were portrayed. This analysis differed from the analysis conducted of the consumer health publications, because those publications were produced for consumption by the general public, and did not represent a sample of literature produced specifically for Aboriginal women, whereas the scholarly articles were selected using the term “Aboriginal” as one of the search criteria, therefore it was expected that these articles would all be about Aboriginal women, and that they would therefore be present in the literature.

This research found that many of the articles written about “Aboriginal” women treated them as members of a single, homogenous unit, rather than recognizing the fact that this term represents not only the distinct groups of First Nations, Métis, and Inuit peoples, but also that each of these other groups is comprised of multiple other groups, delineated by cultural, linguistic, and geographic differences, although this certainly was not true of all of the articles analyzed. Some of the articles did draw the distinction that while a single umbrella term is used to represent multiple cultural groups, that their findings reported should not be generalized across all Aboriginal peoples, and that the term Aboriginal is in and of itself problematic, as it fails to recognize the vast heterogeneity embodied by Aboriginal peoples (see Lalonde, Butt and Bucio 2009, or Campbell, Hayes and Buckby 2008).

Conclusions

The study of research articles produced by members of academic institutions or by healthcare providers provided a valuable insight into the power dynamics between Aboriginal peoples and institutions governed by the elites of the dominant society. This type of research is in keeping with the concept of cultural safety, which “... shifts the role of culture away from a check-list approach based on a person’s ethnic background and toward a critical examination of the power imbalances in health care encounters between indigenous patients and non-indigenous health care providers” (Peiris, Brown and Cass 2008, 985).

While the presence or absence of Aboriginal women in this body of literature was not one of the sites of analysis as it was in the analysis of consumer health publications (since the term “Aboriginal” it was one of the search terms for these scholarly articles), the subjects and keywords associated with the articles written about pregnant Aboriginal women provided a wealth of information. The range of research conducted regarding pregnant Aboriginal women was substantial, with subjects ranging from gestational diabetes, to anxiety and depression, to sexually transmitted diseases, to infant mortality rates, to the Residential School experience.

The articles included within this sample were also analyzed in order to assess whether or not the information was presented within an appropriate context, and while there certainly were numerous examples in which appropriate social, historical, and economic contexts were presented in conjunction with the findings, there were also numerous publications in which the authors presented their findings without any contextual information. Where this is the case, it becomes easy for the reader to internalize that information in such a manner that negative mental models of Aboriginality are constructed. This occurs because the only variable presented with the findings is whether or not the individual affected by the particular health disparity is from an Aboriginal background or not. This is also similar to the manner in which the collocation of terms can serve to reinforce negative stereotypes of Aboriginal women. If information about poor birth outcomes is decontextualized, and if the term “Aboriginal” is collocated with words about smoking, alcohol abuse, poverty, or substance abuse, then the reader may be left with the impression that these behaviours represent cultural characteristics, rather than the reality that these behaviours are the result of systemic marginalization, of dispossession, of the fracturing of Aboriginal peoples’ societies and cultures and the denial of the right of entry into the dominant society.

In order to address some of these issues, researchers must attempt to ensure that Aboriginal women have the opportunity to have their voices heard. In her article on participatory research, Amy Salmon shared the insight that “A further, and unanticipated, outcome of including group interviews as a foundation for policy analysis was that the group interviews created some of the conditions that supported the women in articulating collective experiences that challenge the privatization of mothering, substance use, and FAS/FAE [Fetal Alcohol Syndrome/Fetal Alcohol Effects" (Salmon 2007, 992). Aboriginal women need to be included in research design, implementation, and analysis. Aboriginal peoples must be consulted in order to ensure that the research meets their priorities, and is reflective of their lived experiences.

Implications for Practice

As demonstrated in the review of the literature regarding Indigenous Knowledge and Aboriginal ways of knowing, Indigenous epistemological positions are more holistic than what is typically represented within a Western, scientific paradigm. Despite the published literature explaining these differences in epistemologies, the literature published for pregnant women's consumption continues to reflect the needs and attitudes of the dominant society. In order for pregnancy-related information to be presented in a manner that is culturally appropriate to and therefore more readily accessible and acceptable by the Aboriginal communities, healthcare providers who produce these information sources should work in conjunction with Aboriginal community members in order to ensure that information is framed accordingly.

Similarly, researchers must increase their awareness of neocolonial practices, and how their research may be promoting neo-colonialism and constructing additional barriers to healthcare for Aboriginal peoples. Inequities experienced by Aboriginal peoples must be framed within appropriate social and historical contexts, or these inequities or experiences may be construed as cultural characteristics by the readers, many of whom would be healthcare providers or students. The resulting mental models may reinforce stereotypes and cause these healthcare providers to interact with pregnant Aboriginal women in a manner that may result in health inequities.

Aboriginal women requiring pregnancy-related information resources may have to recognize the fact that their information needs may not be adequately addressed within the social structures of the dominant society. There is an abundance of information available for pregnant women (generally) through the local library system as well as through healthcare facilities, but much of this is written from the perspective of the dominant society. Should Aboriginal women find that these information resources do not meet their needs, or that the information presented is somehow inappropriate, they may need to seek their information elsewhere, such as through an Aboriginal health services provider.

Areas for Future Research

This research represented an attempt on the part of the researcher to understand the power dynamics involved in the production of pregnancy information sources, with the understanding that the manner in which information is constructed and framed will impact how individuals interact with that information and form their own internal cognitions. As the researcher is a member of the dominant society, it seemed appropriate to first gain an understanding of how that dominant society interacts with other groups, in this instance with Aboriginal women. Future research could encompass several different aspects.

Research into the information seeking behaviours of Aboriginal women would be a logical progression from the current study, engaging Aboriginal women to discuss their information needs, their preferred method of obtaining information, how they feel about the information sources they engage with, and how they evaluate information sources. This would be in keeping with the critical realism approach advocated by Sims-Schouten, who writes that “By locating people in their material world, critical realism addresses the relationship between discourse and materiality, and is a position that we feel can allow a more ethical analysis in the sense that we do justice to the lived experience of our participants’ lives by situating participants’ sense-making in the materiality that they have to negotiate and manage” (Sims-Schouten , Riley and Willig 2007, 118).

Another possible avenue for research would be to analyze the mental models of Aboriginality that healthcare providers form after reading different types of research articles, those that present Aboriginal peoples in a positive light, versus those that reinforce negative images of Aboriginal women. This could serve to highlight the importance of discourses, and could potentially provide additional evidence regarding barriers to access to healthcare services experienced by Aboriginal peoples.

Critical discourse analysis is a useful methodology within the field of Library and Information Science, as evidenced in the research regarding the discursive constructions of the concepts of information poverty (Haider and Bawden 2007) or of social positioning and the information seeking behaviours of mature university students (Given 2002). Within this research, a critical discourse analysis of pregnancy publications, both consumer health publications as well as scholarly publications for students and healthcare providers, offered valuable insights into how the elites within society are often in control of the production of discourses, and how that control can manifest itself as an attempt to reaffirm positions of power. Future research will hopefully draw from and expand upon the current study in order to explore the information behaviours of Aboriginal women themselves, as well as to explore how representations of Aboriginal people in scholarly articles serves to inform the perceptions and attitudes of healthcare providers.

One of the primary goals within the field of Library and Information Science is to ensure that all members of society have access to the information that they require in order to truly be a full member of our society. This research has demonstrated that much of the information presented to and about pregnant Aboriginal women is not constructed in a manner to facilitate their use of the information, or their full participation within society. Pregnancy consumer health resources that are constructed along the biomedical model, embracing the body-mind dualism that is representative of the Western, positivist scientific epistemological position, may not meet the information needs of all members of our society, particularly not of the Aboriginal populations whose Indigenous ways of knowing represent a substantially different epistemology. These information resources instantiate a potential barrier for Aboriginal women who need pregnancy information. Similarly, scholarly resources produced about pregnant Aboriginal women but lacking in contextual information or collocating negative terms with the term “Aboriginal” may result in another potential barrier to healthcare services. These types of constructs may lead to social cognitions that reinforce negative stereotypes, causing healthcare providers to interact differently or inappropriately with pregnant Aboriginal women. Researchers need to be aware of this potential when they are conducting research or writing about Aboriginal peoples. Healthcare providers also need to be aware of this potential when they are consuming these articles, so that they can cast a critical gaze upon these information constructs. There are many scholarly articles that do present their findings within appropriate contexts; hopefully these publications will serve to inform readers' mental models.

The manner in which information is constructed and presented can serve to make it inaccessible or unacceptable to those who need it. It can also serve to reinforce social inequities and to further neocolonial practices. Library and Information Science is a field that is well situated to draw attention to matters of discourse, and to recognize the manners in which discourse can impede an individual's access to information or by which discourse can result in barriers for some members of our society. Our field is one that need not claim academic neutrality, but can instead embrace an ideology of change and betterment. This research was an attempt to demonstrate, through critical discourse analysis, how access to information could be improved for a specific portion of our society, and how neocolonial practices are still in evidence, and require correction, in the production of some information for and about pregnant Aboriginal women.

Reference List

Aaronson, Lauren S., Carol Macnee Mural and Susan K. Pfoutz. 1988. Seeking information: Where do pregnant women go? *Health Education & Behavior* 15, no. 3: 335-345.

Alberta Association of Midwives. 2008. Alberta expands healthcare coverage to midwifery: Expectant mothers will have more choice and improved access to care. *Alberta Association of Midwives.* http://www.alberta-midwives.com/press/20081016.php (accessed August 8, 2010).

Aleligay, Annealle, Worrall, Linda E., and Rose, Tanya A. 2008. Readability of written health information provided to people with aphasia. *Aphasiology* 22, no.4: 383–407

Alvares, C. 1991. Science, colonialism and violence: a Luddite view. In *Science, hegemony and violence: A requiem of modernity,* ed. A. Nandy, 68-112. Delhi: Oxford University Press.

Anderson, J. M. 2004. Lessons from a postcolonial-feminist perspective: Suffering and a path to healing. *Nursing Inquiry* 11: 238–246.

Ankem, Kalyani. 2007. Information-seeking behavior of women in their path to an innovative alternate treatment for symptomatic uterine fibroids. *Journal of the Medical Library Association* 95, no.2: 164-172.

Assembly of First Nations. 1992. *Towards Rebirth of First Nations languages* Ottawa: Assembly of First Nations, First Nations Languages and Literacy Secretariat.

Association for Safe Alternatives in Childbirth. 2008. ASAC Goals. http://www.asac.ab.ca/index.php?option=com_content&view=article&id=49&Itemid=59 (accessed June 29, 2010).

Barker, K.K. 1998. A Ship Upon A Stormy Sea: The Medicalization Of Pregnancy. *Social Science & Medicine* 47, no. 8 1067-1076.

Battiste, Marie and J. (Sa'k'ej) Youngblood Henderson. 2000. *Protecting Indigenous Knowledge and Heritage*. Saskatoon: Purich Publishing Ltd.

Benn, C., R.C. Budge and G.E. White. 1999. Women planning and experiencing pregnancy and childbirth: information needs and sources. *Nursing Praxis in New Zealand* 14 no.3: 4-15.

Berman, RO. 2006. Perceived learning needs of minority expectant women and barriers to prenatal education. *Journal of Perinatal Education.* 15 no.2: 36-42.

Billig, Michael. 2008. The language of critical discourse analysis: the case of nominalization. *Discourse Society* 19 no. 6: 783-800.

Bowen, Angela and Nazeem Muhajarine. 2006. Prevalence of Antenatal Depression in Women enrolled in an Outreach Program in Canada. *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 35 no.4: 491-498.

Bowen, Angela, N. Stewart, M. Baetz, N. Muhajarine. 2009. Antenatal depression in socially high-risk women in Canada. *Journal of Epidemiology and Community Health* 63:414–416.

Bower, Carol, Heather D'Antoine, and Fiona J. Stanley. 2009. Neural Tube Defects in Australia: Trends in Encephaloceles and Other Neural Tube Defects Before and After Promotion of Folic Acid Supplementation and Voluntary Food Fortification. *Birth Defects Research (Part A): Clinical and Molecular Teratology* 85: 269–273.

Boyd, Susan C. 2007. The journey to compassionate care. In Boyd and Marcellus 2007, 10-19.

Boyd, Susan C. and Lenora Marcellus, eds. 2007. *With Child. Substance Use During Pregnancy: A Woman-Centred Approach*. Halifax: Fernwood Publishing.

Brodsky, P.L. 2008. Where have the midwives gone? *Journal of Perinatal Education* 17 no.4: 48-51.

Brown, Judith Belle, June Carroll, Heather Boon, and Jean Marmoreo. 2002. Women's decision-making about their health care: Views over the life cycle. *Patient Education and Counselling* 48: 225-231.

Browne, A. J. 2005. Discourses influencing nurses' perceptions of First Nations patients. *Canadian Journal of Nursing Research*, 37 no.4: 62–87.

Browne, A.J., V.L. Smye, and C. Varcoe. 2005. The Relevance of Postcolonial Theoretical Perspectives to Research in Aboriginal Health. *Canadian Journal of Nursing Research* 37 no. 4: 16–37.

Cahill, H.A. 2000. Male appropriation and medicalization of childbirth: an historical analysis. *Journal of Advanced Nursing* 33 no.3: 334-342.

Calgary Health Region. 2005. *Best Beginning*. Calgary: Best Beginning Program, Calgary Health Region.

Campbell, Alistair, Barbara Hayes and Beryl Buckby. 2008. Aboriginal and Torres Strait Islander women's experience when interacting with the Edinburgh Postnatal Depression Scale: A brief note. *Australian Journal of Rural Health* 16: 124–131.

Canadian Library Association. Mission, Values & Operating Principles. http://www.cla.ca/AM/Template.cfm?Section=Mission_Values_andamp_Operating_Principles&Template=/CM/HTMLDisplay.cfm&ContentID=8621 (accessed March 22, 2010).

Carey, M., A. Mylvaganam, I. Rouse and C. Bower. 2005. Risk factors for isolated talipes equinovarus in Western Australia, 1980–1994. *Paediatric and Perinatal Epidemiology,* 19: 238–245.

Case, Donald O. 2007. *Looking for Information: a survey of research on information seeking, needs, and behavior*. Amsterdam: Elsevier Academic Press.

Cassar, L. 2006. Cultural expectations of Muslims and Orthodox Jews in regard to pregnancy and the postpartum period: A study in comparison and contrast. *International Journal of Childbirth Education*. 21 no. 2: 27-30.

Cheung, N. F. 2002. Choice and control as experienced by Chinese and Scottish childbearing women in Scotland. *Midwifery*. 18: 200-13.

Chezem, J.C., C. Friesen, and H. Clark. 2001. Sources of infant feeding information used by pregnant women. *Journal of Perinatal Education* 10 no. 3: 20-26.

Comino, Elizabeth J., Angela Titmuss, Elizabeth Harris, Pippa Craig and Lisa Jackson Pulver. 2007. Identification of Aboriginal infants at an urban hospital *Journal of Paediatrics and Child Health* 43: 623–626.

Couchie, C. and S. Sanderson. 2007. A Report on Best Practices for Returning Birth to Rural and Remote Aboriginal Communities. *Journal of Obstetricians and Gynaecologists of Canada* 188: 250-254.

Davies, M. M. and P.A. Bath. 2002. Interpersonal sources of health and maternity information for Somali women living in the UK: Information seeking and evaluation. *Journal of Documentation* 58 no. 3: 302-318.

Davis, L. 2004. Risky Stories: Speaking and Writing in Colonial Spaces. *Native Studies Review* 15 no.1: 1-20.

Dei, G.J.S. and A. Asgharzadeh. 2001. The Power of Social Theory: The Anti-Colonial Discursive Framework. *Journal of Educational Thought* 35 no. 3: 297-323.

Dei, G.J.S., B. Hall and D.G. Rosenberg (eds). 2000. *Indigenous knowledges in the global contexts: Multiple readings of the world.* Toronto: University of Toronto Press.

Devries, Karen M., Caroline J. Free, Linda Morison and Elizabeth Saewyc. 2009. Factors associated with Pregnancy and STI among Aboriginal Students in British Columbia. *Canadian Journal of Public Health* 100 no. 3: 226-30.

Dick, Archie L. 1999. Epistemological positions and Library and Information Science. *The Library Quarterly* 69 no.3: 305-323.

Digate Muth, N. 2007. Nutrition needs for clients who are pregnant or nursing. *IDEA Fitness Journal*. May: 48-57.

Driscoll, J. W. 2006. Postpartum depression: How nurses can identify and care for women grappling with this disorder. *AWHONN Lifestyles*. 10 no. 5: 400-409.

Dufour, R. 1987. Giving Birth in an Igloo. In *Born up North* ed. O'Neill and Saillant. Montreal: Editions St-Martin.

Dyck, Roland, Helena Klomp, Leonard K. Tan, Roger W. Turnell, Makram A. Boctor. 2002. A Comparison of Rates, Risk Factors, and Outcomes of Gestational Diabetes Between Aboriginal and Non-Aboriginal Women in the Saskatoon Health District. *Diabetes Care* 25 no. 3: 487-493.

Eades, Sandra, Anne W. Read, Fiona J. Stanley, Francine N. Eades, Daniel McCaullay and Anna Williamson. 2008. Bibbulung Gnarneep ('solid kid'): Causal pathways to poor birth outcomes in an urban Aboriginal birth cohort. *Journal of Paediatrics and Child Health* 44: 342–346.

Edmonton Public Library. Pregnancy for Canadians for Dummies. http://epl.bibliocommons.com/item/show/623527005_pregnancy_for_canadians_for_dummies (accessed August 15, 2010).

Edwards, M and Waldorf, M. 1984. *Reclaiming Birth: History and Heroines of American Childbirth*. New York: The Crossing Press.

Erlandson, D.A. et al. 1993. *Doing naturalistic enquiry: A guide to methods*. London, Sage.

Fairclough, Norman. 1993. Critical discourse analysis and the marketization of public discourse: the universities. *Discourse & Society* 4 no.2: 133-168.

Fairclough, Norman 2003. *Analysing Discourse: Textual Analysis for Social Research*. London: Routledge.

Fenwick, Leigh-Ann. 2010. Unassisted childbirth: An instinctual journey. *Birth issues: Current Options in Pregnancy, Birth and Parenting* 25 no. 4: 8-11.

Fisher, Karen E. and Heidi Julien. 2009. Information Behavior. In *Annaul Review of Information Science and Technology*, ed. Blaise Cronin, vol. 43, 317-358. Medford, New Jersey: Information Today, Inc.

Freemantle, C. Jane, Anne W. Read, Nicholas H. de Klerk, Daniel McAullay, Ian P. Anderson, Fiona J. Stanley. 2006. Patterns, trends, and increasing disparities in mortality for Aboriginal and non-Aboriginal infants born in Western Australia, 1980–2001: population database study. *Lancet* 367: 1758–1766.

Friedman, D.B., L. Hoffman-Goetz and J.F. Arocha. 2006. Health literacy and the World Wide Web: Comparing the readability of leading incident cancers on the Internet. *Medical Informatics and the Internet in Medicine* 31 no. 1: 67 – 87.

Fuery, Patrick, Roger Smith, Kym Rae, Rachel Burgess and Kelli Fuery. 2009. Morality, duty, and the arts in health: A project on Aboriginal underage pregnancy. *Arts & Health* 1 no. 1: 36–47.

Gilles, Marisa T., Jan E. Dickinson, Alison Cain, Kate A. Turner, Rosemary Mcguckin, Richard Loh, Susan L. Prescott And Martyn A. French. 2007. Perinatal HIV transmission and pregnancy outcomes in indigenous women in Western Australia *Australian and New Zealand Journal of Obstetrics and Gynaecology* 47: 362–367.

Giles, Timothy D. and Brian Still. 2005. A Syntactic Approach To Readability. *Journal of Technical Writing And Communication* 35 no. 1: 47-70.

Gilligan,C., R. Sanson-Fisher, S. Eades & C. D’este. 2007. Antenatal smoking in vulnerable population groups: An area of need. *Journal of Obstetrics and Gynaecology* 27 no. 7: 664 – 671.

Giroux, Isabelle, Susan Lander, Sarah Charlesworth, and Michelle F. Mottola. 2009. Weight history of overweight pregnant women. *Canadian Journal of Dietetic Research and Practice* 70 no. 3: 127-134.

Given, Lisa M. 2002. Discursive constructions in the university context: Social positioning theory and mature undergraduates' information behaviours. *The New Review of Information Behaviour Research: Studies of Information Seeking in Context* 3:127-141

Haider, Jutta and David Bawden 2007. Conceptions of "information poverty" in LIS: a discourse analysis. *Journal of Documentation* 63 no. 4: 534-557.

Harris, Stewart B., Sara J. Meltzer and Bernard Zinman. 1998. New guidelines for the management of diabetes: a physician's guide. *Canadian Medical Association Journal* 159 no. 8: 973-978.

Harvard Medical School. 2002. "Depression during pregnancy and after." Harvard Mental Health Letter. Date Accessed: April 6, 2008. <http://web.ebscohost.com.login.ezproxy.library.ualberta.ca/ehost/pdf?vid=2&hid=120&sid=d4efbd6d-2a86-47f6-aedb-f29a58368a19%40sessionmgr103>

Heaman, Maureen I., James F. Blanchard, Annette L. Gupton, Michael E. K. Moffatt and Raymond F. Currie. 2005. Risk factors for spontaneous preterm birth among Aboriginal and non-Aboriginal women in Manitoba. *Paediatric and Perinatal Epidemiology*, 19: 181–193.

Heaman, Maureen I. and Karen Chalmers. 2005. Prevalence and Correlates of Smoking During Pregnancy: A Comparison of Aboriginal and Non-Aboriginal Women in Manitoba. *Birth* 32 no. 4: 299-305.

Health for Two. 2010. Support for Health for Two Mothers. Edmonton: Health for Two.

Hepburn, Mary. 2007. Drug use and parenting. In Boyd and Marcellus 2007, 6-8.

Jacoby, Peter A., Harvey L Coates, Ashwini Arumugaswamy, Dimity Elsbury, Annette Stokes, Ruth Monck, Janine M Finucane, Sharon A Weeks and Deborah Lehmann. 2008. The effect of passive smoking on the risk of otitis media in Aboriginal and non-Aboriginal children in the Kalgoorlie–Boulder region of Western Australia. *Medical Journal of Australia*. 188 no. 10: 599-603.

Jordan, B. 1993. *Birth in four cultures: A crosscultural investigation of childbirth in Yucatan, Holland, Sweden, and the United States*. 4th edition. Long Grove IL: Waveland Press Inc.

Juman Blincoe, A. 2005. A guide to healthy eating during pregnancy. *British Journal of Midwifery*. 13 no. 3: 172-5.

Karlinsky, Stewart S. And Koch, Bruce S. 1983. Readability is in the Mind of the Reader. *Journal of Business Communication* 20 no. 4: 57-69.

Keane, Edward. 2009. Evaluating consumer health information: What fails to harm us makes us smarter. *The Reference Librarian* 50 no. 2: 178-192.

Kreiner, M. 2009. Delivering diversity: Newly regulated midwifery returns to manitoba, canada, one community at a time. *Journal of Midwifery & Women's Health* 54 no. 1: e1-10.

Kress, Gunther. 1993. Against arbitrariness: the social production of the sign as a foundational issue in critical discourse analysis. *Discourse & Society* 4 no. 2: 169-191.

Lalonde, André B., Christine Butt, Astrid Bucio. 2009. Maternal Health in Canadian Aboriginal Communities: Challenges and Opportunities *Journal of Obstetrics and Gynaecology Canada* October: 956-962.

Lambe , J., Tekaronianeken / Swamp, J**.** 2002. Effective Cross-cultural Dialogue: Challenges And Opportunities *Mcgill Journal Of Education* 37 no. 3: 423-437.

Lee, Ellie. 2006. Medicalizing Motherhood. *Society* 43 no. 6: 47-50.

Lee, Sun Young, Hyunseo Hwang, Robert Hawkins and Suzanne Pingree. 2008. Interplay of negative emotion and health self-efficacy on the use of health information and its outcomes. *Communication Research* 35 no. 3: 358-381.

Leedy, P. D. and Ormrod, J. E. 2005. *Practical Research: Planning and Design*. 8th Edition. Upper Saddle River: Pearson Merrill Prentice Hall.

Levy, Valerie. 1999. Maintaining equilibrium: a grounded theory study of the processes involved when women make informed choices during pregnancy. *Midwifery*. 15 no. 2: 109-119.

Lindberg, T. 2004. Not My Sister: What Feminists Can Learn about Sisterhood from Indigenous Women. *Canadian Journal of Women and the Law* 16: 342-352**.**

MacDonald, Claire. In Honour of Jenny Flett: Fort Chipewyan Midwife and Mother. *Birth issues: Current Options in Pregnancy, Birth and Parenting*. 25 no. 4: 57-58.

Mackay, S. and S. Yager Smith. 1993. What are they talking about? Is something wrong? Information sharing during the second stage of labor. *Birth*. 20 no. 3: 142–147.

Mander R. 1992. The control of pain in labour. *Journal of Clinical Nursing* 1 no. 4: 219-23.

Mander R. 1997. Choosing the choices in the USA: examples in the maternity area. *Journal of Advanced Nursing.* 25:1192-1197.

Mander, R. and Melender H. 2005. Birth settings and pain control trends among women in Finland. *British Journal of Midwifery* 13 no. 8: 504-509.

Marker, Michael. 2004. Theories and Disciplines as Sites of Struggle: The Reproduction of Colonial Dominance through the controlling of knowledge in the Academy. *Canadian Journal of Native Education;* 28 no. 1/2: 102-110.

Masotti, P., M.A. George, K. Szala-Meneok, A.M. Morton, C. Loock, M.Van Bibber, J. Ranford, M. Fleming, S. and Macleod. 2006. Preventing fetal alcohol spectrum disorder in Aboriginal communities: A methods development project. *PLoS Medicine* 3 no. 1: e8.

McCloskey, R. 2008. A guide to discourse analysis. *Nurse Researcher* 16 no. 1: 24-44.

McConaghy,C. 2000. *Rethinking indigenous education: Culturalism, colonialism and the politics of knowing.* Brisbane: Post Pressed.

McDermott, I.E. 2007. Internet express. Make room for baby: pregnancy and infant resources on the Web. *Searcher.* 15 no. 2: 56-61.

McKendry, R. and T. Langford. 2001. Legalized, regulated, but unfunded: midwifery's laborious professionalization in Alberta, Canada, 1975–99. *Social Science & Medicine* 53 : 531–542.

McKenzie, Pamela. J. 2003. Justifying cognitive authority decisions: Discursive strategies of information seekers. *The Library Quarterly* 73 no. 3: 261-288.

McKenzie, Pamela. J. 2006. The seeking of baby-feeding information by Canadian women pregnant with twins. *Midwifery* 22: 220.

McNaughton, J.E. 1989. *The role of the Newfoundland Midwife in Traditional Health Care, 1900 to 1970.* St. John's: Memorial University of Newfoundland.

Minichiello, V., R. Aroni, and E. Timewell. 1995. *In-depth interviewing: principles, techniques, analysis.* 2nd edition, Melbourne: Longman.

Moffitt, P. M. 2004. Colonialization: A health determinant for pregnant Dogrib women. *Journal of Transcultural Nursing* 15 no. 4:323-330.

Morrow, M. 1992. *Breastfeeding and the limits of informed choice: cultural, social and economic constraints for Vietnamese and Chilean women living in Melbourne*. Melbourne: La Trobe University.

Muhajarine, Nazeem and Carl D'Arcy. 1999. Physical abuse during pregnancy: Prevalence and risk factors. *Canadian Medical Association Journal* 160: 1007-1011.

Mumford, Mary E. 1997. A descriptive study of the readability of patient information leaflets designed by nurses. *Journal of Advanced Nursing,* 26: 985–991.

Murkoff, Heidi and Mazel, Sharon. 2008. *What to Expect when You're Expecting* 4th Edition. New York: Workman Publishing.

Murray, Linda, Leah Hennen and Jim Scott. 2005. *The BabyCenter Essential Guide to Pregnancy and Birth: Expert Advice and Real-World Wisdom from the Top Pregnancy and Parenting Resource*. Emmaus, PA: Rodale.

Nadeau, D. and A. Young. 2006. Educating Bodies for Self-Determination: A Decolonizing Strategy. *Canadian Journal of Native Education* 29 no. 1: 87-101.

Neale, Diane M. 2010. The conundrum of providing authoritative online consumer health information: Current research and implications for information professionals. *Bulletin of the American Society for Information Science and Technology* 36 no. 4: 33-37.

Neufeld, Hannah Tait and Gail Marchessault. 2006. Perceptions of 2 Generations of Aboriginal Women on Causes of Diabetes During Pregnancy. *Canadian Journal Of Diabetes* 30 no. 2:161-168.

Newhouse, D. 2004. Indigenous knowledge in a multicultural world. *Native Studies Review* 15 no. 2: 139-154.

Newman, Christy E., Maria Bonar, Heath S. Greville, Sandra C. Thompson, Dawn Bessarab and Susan C. Kippax. 2007. Barriers and incentives to HIV treatment uptake among Aboriginal people in Western Australia *AIDS* 21(suppl 1):S13–S17.

Nichols, L.A. 2004. The infant caring process among Cherokee mothers. *Journal of Holistic Nursing* 22 no. 3: 226-53.

Oldani, Michael J. 2009. Uncanny Scripts: Understanding Pharmaceutical Emplotment in the Aboriginal Context. *Transcultural Psychiatry* 46 no. 1: 131–156.

Olsson, M. R. 2009. Re-thinking our concept of users. *Australian Academic and Research Libraries*. 40 no. 1: 22-35.

O'Neil, John D. 1989. The Cultural and Political Context of Patient Dissatisfaction in Cross-Cultural Clinical Encounters: A Canadian Inuit Study. *Medical Anthropology Quarterly* 3 no. 4: 324-44.

O'Riley, P. 2004. Shapeshifting research with Aboriginal Peoples: Toward Self-determination. *Native Studies Review* 15 no. 2: 83-102.

Oxford English Dictionary. 2008. http://dictionary.oed.com

Panaretto, Kathryn S., Heather M. Lee, Melvina R. Mitchell, Sarah L. Larkins, Vivienne Manessis, Petra G. Buettner and David Watson. 2006. Prevalence of sexually transmitted infections in pregnant urban Aboriginal and Torres Strait Islander women in northern Australia *Australian and New Zealand Journal of Obstetrics and Gynaecology* 46: 217–224.

Papps, E. and I. Ramsden. 1996. Cultural safety in nursing: the New Zealand experience. *International Journal for Quality in Health Care* 8 no. 5:491-497.

Parry, Diana C. 2008. "We Wanted a Birth Experience, not a Medical Experience": Exploring Canadian Women's Use of Midwifery. *Health Care for Women International* 29 no. 8:784 -806.

Payne, Sarah. 2007. Caring not curing: Caring for pregnant women with problematic substance use in an acute-care setting: A multidisciplinary approach. In Boyd and Marcellus 2007, 56-69.

Peiris, D., A. Brown, and A. Cass. 2008. Addressing inequities in access to quality health care for indigenous people. *Canadian Medical Association Journal* 179 no. 10: 985-986.

Potter, J. 2008. Discourse Analysis. *The SAGE Encyclopedia of Qualitative Research Methods* Thousand Oaks, CA: SAGE Publications USA.

Prentice, A., P. Bourne, G. Cuthbert Brandt, B. Light, W. Mitchinson, N. Black. 1996. *Canadian Women: A History* 2nd Edition, Toronto: Harcourt Brace & Co.

Reid-St. John, S. 2004. Walk off your baby weight. *Health* 18 no. 5: 97.

Relyea, M. J. 1992. The rebirth of midwifery in Canada: An historical perspective. *Midwifery* 8: 159–169.

Rodale. 2008. Point of View: Where health meets green. *Rodale*. http://www.rodale.com/point-view (accessed August 14, 2010).

Romano, A.M. 2007. A changing landscape: Implications of pregnant women's Internet use for childbirth educators. *The Journal of Perinatal Education*. 16 no. 4: 18-24.

Rossiter, J. 1992. Maternal-infant health beliefs and infant feeding practices: the perception and experience of immigrant Vietnamese women in Sydney. *Contemporary Nurse* 1 no. 2: 75-82.

Rushing, B. 1993. Ideology in re-emergence of North American midwifery. *Work and Occupation* 20 no. 1: 46–67.

Salmon, Amy. 2007. Walking the Talk: How Participatory Interview Methods Can Democratize Research. *Qualitative Health Research* 17 no. 7: 982-993.

Schamberger, M. M. 1997. Elements of quality in a qualitative research interview. *S. A. Archives Journal* 39: 25-35.

Schuurmans, Nan, Senikas, Vyta, and Lalonde, Andre B. 2009. *Healthy Beginnings: Giving your baby the best start, from preconception to birth*. 4th Edition. Mississauga, ON: John Wiley & Sons Canada, Ltd.

Shahjahan, R.A. 2005. Mapping the field of Anti-colonial discourse to understand issues of Indigenous knowledges: Decolonizing praxis. *McGill Journal of Education* 40 no. 2: 213-240.

Sheehan, A., V. Schmied and M. Cooke. 2003. Australian women's stories of their baby-feeding decisions in pregnancy. *Midwifery*. 19 no. 4: 259-266.

Sheehan, Kim. 2006. Consumer Friendly or Reader Hostile? An Evaluation of the Readability of DTC Print Ads. *Health Marketing Quarterly* 23 no. 4: 1-16

Shenton, A.K. 2004. Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information* 22: 63-75.

Simmons, David, Munir A. Khan, and Glyn Teale. 2005. Obstetric outcomes among rural Aboriginal Victorians. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 45: 68–70.

Sims-Schouten, Wendy, Sarah C.E. Riley and Carla Willig. 2007. Critical realism in discourse analysis: A presentation of a systematic method of analysis using women’s talk of motherhood, childcare and female employment as an example. *Theory & Psychology* 17 no. 1: 101-124.

Singh, Debbie, Mary Newburn, Nina Smith, and Meg Wiggins. 2002. The information needs of first-time pregnant mothers. *British Journal of Midwifery* 10 no. 1: 54-58.

Smith, Dawn, and Barbara Davies. 2006. Creating a new dynamic in Aboriginal Health. *Canadian Nurse* 102 no. 4: 36-39.

Smith, Dawn, Colleen Varcoe, and Nancy Edwards. 2005. Turning Around the Intergenerational Impact of Residential Schools on Aboriginal People: Implications for Health Policy and Practice. *Canadian Journal of Nursing Research* 37 no. 4: 38-60.

Smith, Dawn A., Nancy C. Edwards, Patricia J. Martens and Colleen Varcoe. 2007. ‘Making a Difference’: A New Care Paradigm for Pregnant and Parenting Aboriginal People. *Canadian Journal Of Public Health* 98 no. 4: 321-325.

Smith, Linda Tuhiwai. 1999. *Decolonizing Methodologies: Research and Indigenous Peoples.* London: Zed Books Ltd.

Smoke-Free Families. 2001. *Small steps matter: A guide to help you quit smoking*. Chapel Hill, NC: Smoke Free Families.

Soltani, H. and F.M. Dickinson. 2005. Exploring women's views on information provided during pregnancy. *British Journal of Midwifery.* 13 no. 10: 633-636.

Spivak, G. C. 1995. Can the subaltern speak? In *The post-colonial studies reader* eds. B. Ashcroft, G. Griffiths & H. Tiffin. New York: Routledge.

Steinberg, S. 1996. Childbearing research: a transcultural review. *Social Science and Medicine*. 43 no. 12:1764-1785

Stone, Joanne, Eddleman, Keith, Duenwald, Mary, and Pearson, Janice. 2007. *Pregnancy for Canadians for Dummies: A Reference for the Rest of Us!* Mississauga, ON: John Wiley & Sons Canada, Ltd.

Stonier J. 1990. The Innulitsivik Maternity. In *Childbirth in the Canadian North: epidemiological, Clinical and Cultural Perspectives*. Eds. J.D. O'Neil and P. Gilbert. Winnipeg: Northern Health Research Unit.

Stoppard, Miriam, M.D., F.R.C.P. 2009. *Dr. Miriam Stoppard’s New Pregnancy and Birth Book: The classic guide for parents-to-be. Revised and Updated*. New York: Ballantine Books

Street Works. 2009. *Oh Shit, I'm Pregnant… Your guide to being pregnant on the street*. Edmonton: Street Works.

Success by 6®. *Fetal Alcohol Syndrome Prevention Project.* Edmonton: Success by 6®.

Szwajcer, E.M., G.J. Hiddink, M.A. Koelen, and C.M.J. van Woerkum. 2005. Nutrition-related information-seeking behaviours before and throughout the course of pregnancy: consequences for nutrition communication. *European Journal of Clinical Nutrition*. 59 (Suppl 1): S57-65.

Tang, S.Y. and Brown, A.J. 2008. Race matters: Racialization and egalitarian discourses involving Aboriginal people in the Canadian health care context. *Ethnicity & Health* 13 no.2: 109 -127.

Thommasen, H.V., M.C. Klein, T. Mackenzie, and S. Grzybowski. 2005. Perinatal outcomes at the Bella Coola Hospital: 1940-2001. *Canadian Journal of Rural Medicine* 10 no. 1: 22-28.

Thomson, M.D. and L. Hoffman-Goetz. 2007. Readability and cultural sensitivity of web-based patient decision aids for cancer screening and treatment: A systematic review. *Medical Informatics and the Internet in Medicine* 32 no. 4: 263 – 286.

Tough, Suzanne, Margaret Clarke, and Jocelyn Cook. 2007. Fetal Alcohol Spectrum Disorder prevention approaches among Canadian physicians by proportion of Native/Aboriginal patients: Practices during the preconception and prenatal periods. *Maternal and Child Health Journal* 11: 385-393.

University of Alberta Libraries. 2010a. "CINAHL Plus with Full Text." http://www.library.ualberta.ca/databases/databaseinfo/index.cfm?ID=3709 (accessed June 1, 2010).

University of Alberta Libraries. 2010b. "Health Source: Nursing / Academic Edition." http://www.library.ualberta.ca/databases/databaseinfo/index.cfm?ID=3353 (accessed June 1, 2010).

University of Alberta Libraries. 2010c. "Medline" http://www.library.ualberta.ca/databases/databaseinfo/index.cfm?ID=102 (accessed June 1, 2010).

van Dijk, T.A. 1993. Principles of Critical Discourse Analysis. *Discourse & Society* 4 no. 2: 249-83.

Walfish, Steven and Katherine Pinholster. 2008. Reading Level of Overeaters Anonymous Primary Educational Material. *Eating Disorders* 16:212–216

Wallis, M., L. Gartin, R.E. Weiss, M. Hildreth, K. McGrath and C. Sultana. 2006. Resources for childbirth educators and expectant parents. *The Journal of Perintal Education* 15 no. 2: 56-60.

Walters, V. 1994. Women's perceptions regarding health and illness. In *Health, illness and health care in Canada.* Eds. B. S. Bolaria & H. D. Dickinson. Toronto, Canada: Hartcourt Brace.

Warren, R. 1998. Support, sensitivity, satisfaction: Filipino, Turkish and Vietnamese women's experiences of postnatal hospital stay. *Midwifery.* 14: 144-154.

Waters, V. L. 2006. Oklahoma Medical Center's Spanish-speaking childbirth progam. *International Journal of Childbirth Education* 21 no. 2: 31-34.

Wathen, C. Nadine. 2006. Health information seeking in context: How women make decisions regarding hormone replacement therapy. *Journal of Health Communication*: 11: 447-493.

Weninger, C. 2008. Critical Discourse Analysis. *The SAGE Encyclopedia of Qualitative Research Methods*. Thousand Oaks, CA: SAGE Publications USA.

Wenman, Wanda M., Michel R. Joffres, Ivanna V. Tataryn, and the Edmonton Perinatal Infections Group. 2004. A prospective cohort study of pregnancy risk factors and birth outcomes in Aboriginal women. *Canadian Medical Association Journal* 171 no. 6:585-589.

Westenberg, Leontine, Karin AM van der Klis, Annabelle Chan, Gustaaf Dekker, and Rosemary J Keane. 2004. Aboriginal teenage pregnancies compared with non-Aboriginal in South Australia 1995–1999. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 42 no. 2: 187 - 192.

Westfall, R.E. and C. Benoit. 2004. The rhetoric of ''natural'' in natural childbirth: childbearing women's perspectives on prolonged pregnancy and induction of labour. *Social Science & Medicine* 59: 1397–1408.

Yelland, J., R. Small, J. Lumley, P. Liamputtong Rice, V. Cotronei, and R. Warren. 1998. Support, sensitivity, satisfaction: Filipino, Turkish and Vietnamese women's experiences of postnatal hospital stay. *Midwifery.* 14: 144-154.

Ziebland, Sue. 2004. The importance of being expert: The quest for cancer information on the Internet. *Social Science and Medicine* 59: 1783-1793.

Zionts, Nancy D., Jan Apter, Julianna Kuchta, and Pamela K. Greenhouse. 2010. Promoting Consumer Health Literacy: Creation of a Health Information Librarian Fellowship. *Reference & User Services Quarterly,* 49 no. 4: 350–359.

Appendix I
Annotated Bibliography of Consumer Health Pregnancy Books Selected From Edmonton Public Libraries

Boyd, Susan C. and Marcellus, Lenora. 2007. *With Child. Substance Use During Pregnancy: A Woman-Centred Approach*. Halifax: Fernwood Publishing.

Back Cover:

> Women who use drugs or alcohol during pregnancy have historically been treated in a punitive manner. This book brings together a number of Canadian authors who are working and writing about substance use and pregnancy, mothering, harm reduction, and woman-centred services. All the contributors are directly involved in providing and managing services. They propose that drugs are one factor among many that shape pregnancy and mothering and, although drug use is a risk, it is a manageable one. They advocate providing compassionate care to all pregnant women, mother, and their children.

Each of the seven chapters in this book is written by a separate author, therefore representing a multitude of perspectives and experiences. However, all of the chapters are concerned with the promotion of the concept of harm reduction. Given this emphasis on this particular ideology, it is not surprising that much of the information in this book focuses on the social contexts that result in substance use.

Table of Contents:

- Chapter One – Drug Scares and Practice: Socio-Historical Considerations.
- Chapter Two – Using Feminist Ethics to Inform Practice with Pregnant Women Who Use Substances.
- Chapter Three – Outcomes for Children with Prenatal Exposure to Drugs and Alcohol.
- Chapter Four – Caring Not Curing: Caring for Pregnant Women with Problematic Substance use in an Acute-Care Setting: A Multidisciplinary Approach.
- Chapter Five – One Woman at a Time: Bringing the Fir Square Model of Practice to a Community Hospital
- Chapter Six – “Make it More Welcome”: Best-Practice Child Welfare Work with Substance-Using Mothers – Diminishing Risks by Promoting Strengths.
- Chapter Seven – Breaking the Cycle: An Essay in Three Voices.

Analysis:
This book, although shelved with the consumer health publications, was significantly different than the other books selected in the sample. It was purposefully selected, because the image on the cover seems to be of an Aboriginal woman, and this represented the first book that I found that featured an Aboriginal woman on the cover. That it was about substance use struck me as significant. It was not until I began analyzing the work that I realized that this was not a book written for pregnant mothers experiencing substance and/or addictions problems, but rather a book for healthcare providers and policy makers. Although it was not a consumer health publication, it was retained in the study because it provided a unique perspective.

Calgary Health Region. 2005. *Best Beginning*. Calgary: Best Beginning Program, Calgary Health Region.

Back Cover:
The back cover of the book is blank.

Table of Contents:

- Your pregnancy
- Getting ready for your baby's birth
- Understanding labor and birth
- Your baby is born
- What to expect in your first few weeks
- Baby's health
- Community Resources

Analysis:
Written by a health region, this book is very obviously biomedical in focus, but written in a very accessible manner. The first chapter contains information on: emotions; the duration of pregnancy; a glossary of medical terms; how pregnancy begins; weight gain and where that weight can be attributed to; warning signs; preterm labor; medical visits; prenatal tests; baby's growth; diabetes; sexuality; HIV; smoking and substance use; healthy eating; vitamins; food buying tips; and exercise. Where some of the other books seem to be written for an elite audience, this one seems to be written more for women who do not have the same reading skills or the same opportunities for mid-day rests or buying new things. Instead there is a very simple section on how to buy foods with the vitamins and nutrients required during pregnancy. This section is broken down by nutrient (e.g. Foods with Folate on page 47), and provides not only the list of foods, but also pictures beside each food type, to ensure that it will be more easily understood by women with different literacy levels.

Murkoff, Heidi and Mazel, Sharon. 2008. *What to Expect when You're Expecting* 4th Edition. New York: Workman Publishing.

Back Cover:

> The best just got better. Expect the best! A brand-new fourth edition – filled with the most up-to-date, accurate, and relevant information on all things pregnancy. Realistic, supportive, easy to access and overflowing with practical tips, covering everything you'll need – and want – to know about life's most amazing journey, from preconception planning to birth to those first miraculous weeks with a new baby. It's all here: the lowdown on lifestyle trends and life in the workplace; the latest in prenatal testing and alternative therapies; the best in birthing options.

Table of Contents:

- Before You Conceive
- Are You Pregnant
- Your Pregnancy Profile
- Your Pregnancy Lifestyle
- Nine Months of Eating Well
- The First Month
- The Second Month
- The Third Month
- The Fourth Month
- The Fifth Month
- The Sixth Month
- The Seventh Month
- The Eighth Month
- The Ninth Month
- Labor & Delivery
- Expecting More than One
- Postpartum: The First
- Weeks
- Fathers are Expectant Too
- If You Get Sick
- If You Have a Chronic Condition
- Managing a Complicated Pregnancy
- Coping With Pregnancy Loss

Analysis:

The emphasis with this book is also biomedical information, from preconception planning through the entire pregnancy. The preconception planning section is very much focussed on getting yourself physically ready for pregnancy, from which preconception check-ups are required, to how to determine the best time to try to conceive. There is very little on preparing oneself emotionally, financially, or otherwise. The book does attempt to include some holistic information, however, including not only questions from pregnant women, but also tips on such topics as how to deal with people who want to touch the woman's belly (214), or what types of changes are to be expected in one's sex drive during pregnancy (184).

Murray, Linda, Leah Hennen and Jim Scott. 2005. *The BabyCenter Essential Guide to Pregnancy and Birth: Expert Advice and Real-World Wisdom from the Top Pregnancy and Parenting Resource*. Emmaus, PA: Rodale.

Back Cover:

Expert advice and Mom-to-Mom Wisdom… Everything you <u>really</u> want and need to know.

BabyCenter has helped more than 15 million mother negotiate the often strange and scary, but always miraculous, worlds of pregnancy and parenting. Now, we've gathered the latest, most trustworthy advice into one superlative resource… including new information not available on our Web Site.

In *The BabyCenter Essential Guide to Pregnancy and Birth* you'll discover:

BabyCenter Buzz: What real moms have to say about pregnancy – the good, the challenging, the tricky, the surprising…. And everything in between – and hundreds of tips from their experience.

Is it safe?: Which foods, herbs, drugs, beauty treatments, products, and other activities can be continued – and which to avoid

Just the Facts: Debunks common pregnancy myths and misconceptions, giving you the latest information and insight into the amazing changes taking place in your body

Ask the Experts: Leading experts answer questions you're too embarrassed to ask, don't think to ask, or don't know whom to ask

Just for Dad: Yes, he's expecting, too… and this section gives the low-down on how to handle his new role

By the numbers: Reveals poll results and statistics so you can see how your experience compares to others

Plus worksheets, charts, quizzes, checklists and more…

.

Table of Contents:

  - Chapter 4: Your emotions
  - Chapter 5: The rest of your life
- Part II – The Second Trimester 14-27 Weeks
  - Chapter 6: Your pregnancy
  - Chapter 7: Your Health
  - Chapter 8: Your nutrition and fitness
  - Chapter 9: Your emotions
  - Chapter 10: The rest of your life
- Part III – The Third Trimester 28-31 Weeks
  - Chapter 11: Your pregnancy
  - Chapter 12: Your Health
  - Chapter 13: Your nutrition and fitness
  - Chapter 14: Your emotions
  - Chapter 15: The rest of your life
- Part IV – Labor and Birth
  - Chapter 16: Getting ready for Labor Day
  - Chapter 17: Giving Birth: Normal labor and delivery
  - Chapter 18: Giving Birth: Special Situations and complications
- Part V – Recovering from Childbirth: The first 6 weeks
  - Chapter 19: Your body after the baby
  - Chapter 20: Your emotions after the baby
  - Chapter 21: Breastfeeding: The first few weeks
- Part VI – Special Situations
  - Chapter 22: Chronic conditions
  - Chapter 23: Infections to watch out for
  - Chapter 24: Pregnancy complications
  - Chapter 25: Is it safe?

Analysis

This book provides both medical information as presented by experts, as well as experiential knowledge, as provided by the quotes from other women who have chosen to share their own experiences in online discussion forums. These quotes from other women represent a variety of different experiences. The statistics provided another opportunity of the reader to compare their own experiences with those of other women, as these statistics were poll results from surveys conducted on *BabyCenter.com*. The writing style is informal, the information is well-informed, both from the medical experts and other women's experiences.

Schuurmans, N., V. Senikas, , and A. B. Lalonde. 2009. ***Healthy Beginnings: Giving your baby the best start, from preconception to birth*****. 4th Edition. Mississauga, ON: John Wiley & Sons Canada, Ltd**.

Back Cover:

If you are thinking about having a baby, have just learned that you are pregnant, or have been enjoying pregnancy so far and just want to learn more, this is the book for you. *Healthy Beginnings* is a **uniquely Canadian** handbook that helps guide you along the "path" to a healthy pregnancy so that you can give your baby "the best start from preconception to birth".

The authors are accomplished physicians in the area of obstetrics and gynaecology in Canada. They have drawn generously from their own experience and from the clinical practice guidelines established by the Society of Obstetricians and Gynaecologists of Canada. This handbook guides you through the various steps of pregnancy – before conception, during pregnancy, through childbirth, and the first moments that you assume your new role as parents to a newborn child.

Table of Contents:

Analysis:

While the chapter titles do not provide a very clear sense of the biomedical emphasis of this book, the subheadings provide more detail. For instance, the subheadings for chapter two include: How often should I expect to visit my health-care provider?; Your first prenatal visit; About weight gain; About vitamin supplements; Prenatal classes; Why do I need so many tests?; Genetic screening; etc. There are two (of 31) subheadings that seem to address women's emotional needs – they are "Discussing your pregnancy" and "Your emotions during pregnancy". However, upon further examination, the section about discussing the pregnancy is not about how to broach the topic with family, friends or colleagues, but rather what information the healthcare team will want to discuss with the pregnant woman. The section on emotions (66) does address the expecting woman's potential emotional responses to pregnancy, but also emphasizes the role of hormones in producing those emotions. This book, written by medical professionals, obviously espouses the biomedical focus of their profession.

Stone, Joanne, Eddleman, Keith, Duenwald, Mary, and Pearson, Janice. 2007. *Pregnancy for Canadians for Dummies: A Reference for the Rest of Us!* Mississauga, ON: John Wiley & Sons Canada, Ltd.

Back Cover

An essential guide for the realities of pregnant life in Canada.
Is it okay to dye your hair when you are pregnant? How about eating sushi? What about epidurals and back tattoos? Pregnancy should be a joy, not a worry. Pregnancy For Canadians For Dummies addresses commonly asked questions, clears up myths, and offers solid advice from real, medically-based data. Topics include:

- A trimester-by-trimester look at your baby's development. Find out what's normal - and what's not.
- New findings about the treatment of pre-term labour and Down syndrome screening, and available options for detecting various problems
- What to expect during labor and delivery
- The latest news on prenatal testing, premature and multiple births, anesthesia and cesarean deliveries
- When the unexpected happens: recurrent miscarriages, late-pregnancy loss, fetal abnormalities

Pregnancy For Canadians For Dummies will offer comfort and reassurance while serving as a guide to what mother and baby experience before, during, and just after birth.

Table of Contents:

Part I: The Game Plan
    Chapter 1: From here to maternity
    Chapter 2: I think I'm Pregnant!
    Chapter 3: Preparing for life during pregnancy
    Chapter 4: Diet and exercise for the expectant mother
Part II: Pregnancy: A drama in three acts
    Chapter 5: The first trimester
    Chapter 6: The second trimester
    Chapter 7: The third trimester
    Chapter 8: Understanding prenatal testing
Part III: The big event: Labor, delivery, and recovery
    Chapter 9: I think I'm in labor!
    Chapter 10: Special delivery: Bringing your baby into the world
    Chapter 11: Hello world! Your newborn
    Chapter 12: Taking care of yourself after delivery

Chapter 13: Feeding your baby
Part IV: Special Concerns
    Chapter 14: Pregnancies with special considerations
    Chapter 15: When things get complicated
    Chapter 16: Pregnancy in sickness and in health
    Chapter 17: Coping with the unexpected
Part V: The part of Tens
    Chapter 18: Ten things nobody tells you
    Chapter 19: Ten (or so) old wives tales
    Chapter 20: Ten landmarks in fetal development
    Chapter 21: Ten key things you can see on ultrasound
Appendix: The pregnant man: having a baby from a Dad's perspective.

Analysis:
Although this book seems to be written in a more casual style, it still maintains a clear biomedical focus, as the majority of the content deals with medical information. This book does, however, address some holistic aspects of pregnancy, such as emotions and concerns. It also offers a section for the expecting father, which includes some tips on how best to support his pregnant partner. These tips including providing appropriate emotional support, to indicating those times when his partner may need more concrete support, such as times during the pregnancy when the woman is more likely to be quite fatigues and uncomfortable, and the types of household chores that she may find overwhelming.

Stoppard, Miriam, M.D., F.R.C.P. 2009. *Dr. Miriam Stoppard's New Pregnancy and Birth Book: The classic guide for parents-to-be*. Revised and Updated. New York: Ballantine Books.

Back Cover:

> Reassuring, practical, and thoroughly enjoyable to read, *Dr. Miriam Stoppard's New Pregnancy and Birth Book* is the ideal step-by-step guide to every aspect of pregnancy – from prenatal care and childbirth through the first few weeks of life. Containing new color photos, this revised edition is packed with vital information on the latest fertility treatments, prenatal tests, and obstetric procedures, as well as new sections that address the needs of working expectant mothers. Inside you will find
>
> - Information and guidance for both parents through each stage, including charts and checklists to assist you in planning for the new arrival
> - An extended month-by-month pregnancy calendar highlighting the mother's physical and emotional changes

  during pregnancy and the baby's development inside the body
- Thorough information about special health concerns and common complaints
- Diet, exercise, and relaxation techniques that benefit both mother and baby
- Detailed photographs, drawings, and diagrams

Table of Contents:

- Introduction
- Deciding to have a baby
- Finding out you are pregnant
- Pregnancy calendar
- Choices in childbirth
- Prenatal care
- The growing baby
- Physical changes
- Health and Nutrition
- Exercise
- Looking good
- Rest and relaxation
- Common complaints
- Special-care pregnancies
- Preparing for the birth
- Labor and birth
- Complications
- The first days
- Getting back to normal.

Analysis:
This book addresses more than just the biomedical aspects of pregnancy, but seems to be writing for a specific audience, namely a privileged elite section of the population. The chapter on looking good states that "…fashion designers now make maternity clothes that accentuate your bump attractively, using fashionable colors and flattering and comfortable fabrics" (Stoppard 2009, 132). Expecting women are also encouraged to "invest in one or two really smart or glamorous outfits" (132). Likewise, the section on rest and relaxation (139) offers suggestions to help the pregnant woman get the proper amount of sleep, and these are not based solely on medical advice. These suggestions include herbal tea, relaxing music, using aromatherapy oils in a nice bath, or purchasing a larger bed with a quality mattress, suggestions which demonstrate the audience for whom this book was intended. Additionally, this section advises the pregnant woman to nap during the day when possible (140), which is reminiscent of the *Prenatal*

Care book in which women were advised to live a lifestyle that was only possible for a select minority of the population. So, while this book does represent a more balanced approach, offering holistic advice as well as biomedical information, it does also seem to conflate ideal womanhood with class and race concepts.

Appendix II
Bibliography of Academic Publications Analyzed

CINAHL

Bowen, Angela and Nazeem Muhajarine. 2006. Prevalence of Antenatal Depression in Women enrolled in an Outreach Program in Canada. *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 35(4): 491-8

Bowen, A., N Stewart, M Baetz, N Muhajarine. 2009. Antenatal depression in socially high-risk women in Canada. *Journal of Epidemiology and Community Health* 63:414–416

Alistair Campbell, Barbara Hayes and Beryl Buckby. 2008. Aboriginal and Torres Strait Islander women's experience when interacting with the Edinburgh Postnatal Depression Scale: A brief note. *Australian Journal of Rural Health* 16**:** 124–131

Cleary, Eilish, Sora Ludwig, Nichole Riese, Lorna Grant. 2006. Educational Strategies to Improve Screening for Gestational Diabetes Mellitus in Aboriginal Women in a Remote Northern Community. *Canadian Journal Of Diabetes* 30(3):264-268.

Comino, Elizabeth J., Angela Titmuss, Elizabeth Harris, Pippa Craig and Lisa Jackson Pulver. 2007. Identification of Aboriginal infants at an urban hospital. *Journal of Paediatrics and Child Health* 43: 623–626.

Devries, Karen M., Caroline J. Free, Linda Morison, Elizabeth Saewyc. 2009 Factors associated with Pregnancy and STI among Aboriginal Students in British Columbia. *Canadian Journal of Public Health* 100(3): 226-30

Eades, S., Anne W Read, Fiona J Stanley, Francine N Eades, Daniel McCaullay and Anna Williamson. 2008. Bibbulung Gnarneep ('solid kid'): Causal pathways to poor birth outcomes in an urban Aboriginal birth cohort. *Journal of Paediatrics and Child Health* 44: 342–346

Freemantle, C Jane, Anne W Read, Nicholas H de Klerk, Daniel McAullay, Ian P Anderson, Fiona J Stanley. 2006. Patterns, trends, and increasing disparities in mortality for Aboriginal and non-Aboriginal infants born in Western Australia, 1980–2001: population database study. *Lancet* 367: 1758–1766

Fuery, Patrick, Roger Smith, Kym Rae, Rachel Burgess and Kelli Fuery. 2009. Morality, duty, and the arts in health: A project on Aboriginal underage pregnancy. *Arts & Health* 1(1): 36–47.

Giroux, Isabelle, Susan Lander, Sarah Charlesworth, Michelle F. Mottola. 2009. Weight History of Overweight Pregnant Women. *Canadian Journal of Dietetic Practice and Research* 70(3): 127-134

Heaman, Maureen I. and Karen Chalmers. 2005. Prevalence and Correlates of Smoking During Pregnancy: A Comparison of Aboriginal and Non-Aboriginal Women in Manitoba. *Birth* 32(4): 299-305

Klomp, Helena ,Roland F. Dyck, Suzanne Sheppard. 2003. Description and Evaluation of a Prenatal Exercise Program for Urban Aboriginal Women. *Canadian Journal Of Diabetes* 27(3):231-238.

Neufeld, Hannah Tait and Gail Marchessault. 2006. Perceptions of 2 Generations of Aboriginal Women on Causes of Diabetes During Pregnancy. *Canadian Journal Of Diabetes* 30(2):161-168.

Powell, Jane and A.E. Dugdale. 1997. Obstetric Outcomes in an Aboriginal community: A comparison with the surrounding rural area. *Australia Journal of rural health* 7: 13-17.

Simmons, David, Munir A. Khan And Glyn Teale . 2005. Obstetric outcomes among rural Aboriginal Victorians. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 45: 68–70.

Smith, Dawn and Barbara Davies. 2006. Creating a New Dynamic in Aboriginal Health. *Canadian Nurse* 102(4): 36-39.

Smith, Dawn A., Nancy C. Edwards, Patricia J. Martens and Colleen Varcoe. 2007. ‘Making a Difference’: A New Care Paradigm for Pregnant and Parenting Aboriginal People. *Canadian Journal Of Public Health* Volume 98(4): 321-325.

Smith, Dawn, Colleen Varcoe, and Nancy Edwards. 2005. Turning Around the Intergenerational Impact of Residential Schools on Aboriginal People: Implications for Health Policy and Practice. *Canadian Journal of Nursing Research* 37(4): 38-60.

Tough, Suzanne, Margaret Clarke, and Jocelyn Cook. 2007. Fetal Alcohol Spectrum Disorder prevention approaches among Canadian physicians by proportion of Native/Aboriginal patients: Practices during the preconception and prenatal periods. *Maternal and Child Health Journal* 11: 385-393.

Wenman, Wanda M., Michel R. Joffres, Ivanna V. Tataryn, and the Edmonton Perinatal Infections Group. 2004. A prospective cohort study of pregnancy risk factors and birth outcomes in Aboriginal women. *Canadian Medical Association Journal* 171(6):585-9

Healthsource

Bennett, J.A., L.J. Palmer, A.W. Musk, W.N. Erber. 2002. Gene Frequencies of human platelet antigens 1 – 5 in indigenous Australians in Western Australia. *Transfusion Medicine* 12: 199-203.

Bowen, Angela and Nazeem Muhajarine. 2006. Prevalence of Antenatal Depression in Women enrolled in an Outreach Program in Canada. *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 35(4): 491-498.

Bowen, Angela, Rudy Bowen, George Maslany, Nazeem Muhajarine. 2008. Anxiety in a Socially High-Risk Sample of Pregnant Women in Canada. *The Canadian Journal of Psychiatry* 53(7): 435-440.

Carey, M., A. Mylvaganam, I. Rouse and C. Bower. 2005. Risk factors for isolated talipes equinovarus in Western Australia, 1980–1994. *Paediatric and Perinatal Epidemiology* 19: 238–245.

Dyck, Roland, Helena Klomp, Leonard K. Tan, Roger W. Turnell, Makram A. Boctor. 2002. A Comparison of Rates, Risk Factors, and Outcomes of Gestational Diabetes Between Aboriginal and Non-Aboriginal Women in the Saskatoon Health District. *Diabetes Care* 25(3): 487-493.

Gilligan, C., R. Sanson-Fisher, S. Eades and C. D'este. 2007. Antenatal smoking in vulnerable population groups: An area of need. *Journal of Obstetrics and Gynaecology* 27(7): 664 – 671.

Harris, Stewart B., Sara J. Meltzer, Bernard Zinman. 1998. New guidelines for the management of diabetes: a physician's guide. *Canadian Medical Association Journal* 159(8): 973-978.

Heaman, Maureen I. 2004. Relationships Between Physical Abuse During Pregnancy and Risk Factors for Preterm Birth Among Women in Manitoba. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 34(6): 722-731.

Heaman, Maureen I., James F. Blanchard, Annette L. Gupton, Michael E. K. Moffatt and Raymond F. Currie. 2005. Risk factors for spontaneous preterm birth among Aboriginal and non-Aboriginal women in Manitoba. *Paediatric and Perinatal Epidemiology* 19:181–193.

Hughes, Christine A., Dalyce Zuk, Michelle Foisy, Joan Robinson, Ameeta E. Singh, and Stan Houston. 2009. Prenatal Screening and Perinatal HIV Transmission in Northern Alberta, 1999–2006. *American Journal of Public Health* | Supplement 2 99(S2): s412-s416.

Luo, Zhong-Cheng, Russell Wilkins, Robert W. Platt and Michael S. Kramer, for the Fetal and Infant Health Study Group of the Canadian Perinatal Surveillance System. 2004. Risks of adverse pregnancy outcomes among Inuit and North American Indian women in Quebec, 1985–97 *Paediatric and Perinatal Epidemiology* 18: 40–50.

Moffitt, Pertice M. 2004. Colonialization: A Health Determinant for Pregnant Dogrib Women. *Journal of Transcultural Nursing* 15: 323-330.

Muhajarine, Nazeem, and Carl D'Arcy. 1999. Physical abuse during pregnancy: prevalence and risk factors. *Canadian Medical Association Journal* 160:1007-1011.

Powell, Jane and A.E. Dugdale. 1997. Obstetric Outcomes in an Aboriginal community: A comparison with the surrounding rural area. *Australia Journal of rural health* 7: 13-17.

Rotermann, Michelle. 2007. Second or subsequent births to teenagers. *Health Reports* 18(1): 39-42.

Salmon , Amy. 2007. Walking the Talk: How Participatory Interview Methods Can Democratize Research. *Qualitative Health Research* 17(7): 982-993.

Schultz, Rosalie, Anne W Read, Judith A Y Straton, Fiona J Stanley, Patricia Morich. 1991. Genitourinary tract infections in pregnancy and low birth weight:case-control study in Australian Aboriginal women. British Medical Journal 303: 1369-1373.

Tough, Suzanne, Margaret Clarke, and Jocelyn Cook. 2007. Fetal Alcohol Spectrum Disorder prevention approaches among Canadian physicians by proportion of Native/Aboriginal patients: Practices during the preconception and prenatal periods. *Maternal and Child Health Journal* 11: 385-393.

Wenman, Wanda M., Michel R. Joffres, Ivanna V. Tataryn, and the Edmonton Perinatal Infections Group. 2004. A prospective cohort study of pregnancy risk factors and birth outcomes in Aboriginal women. *Canadian Medical Association Journal* 171(6):585-9.

Medline

Bower, Carol, Heather D’Antoine, and Fiona J. Stanley. 2009. Neural Tube Defects in Australia: Trends in Encephaloceles and Other Neural Tube Defects Before and After Promotion of Folic Acid Supplementation and

Voluntary Food Fortification. *Birth Defects Research (Part A): Clinical and Molecular Teratology* 85:269–273.

Comino, Elizabeth J., Angela Titmuss, Elizabeth Harris, Pippa Craig and Lisa Jackson Pulver. 2007. Identification of Aboriginal infants at an urban hospital. *Journal of Paediatrics and Child Health* 43: 623–626.

Couchie, C. and Sanderson, S. 2007. A Report on Best Practices for Returning Birth to Rural and Remote Aboriginal Communities. *Journal of Obstetricians and Gynaecologists of Canada* 188: 250-4.

Devries, Karen M., Caroline J. Free, Linda Morison and Elizabeth Saewyc. 2009. Factors associated with Pregnancy and STI among Aboriginal Students in British Columbia. *Canadian Journal of Public Health* 100(3): 226-30.

Dyck, Roland, Helena Klomp, Leonard K. Tan, Roger W. Turnell, Makram A. Boctor. 2002. A Comparison of Rates, Risk Factors, and Outcomes of Gestational Diabetes Between Aboriginal and Non-Aboriginal Women in the Saskatoon Health District. *Diabetes Care* 25(3): 487-493.

Eades, Sandra, Anne W. Read, Fiona J. Stanley, Francine N. Eades, Daniel McCaullay and Anna Williamson. 2008. Bibbulung Gnarneep ('solid kid'): Causal pathways to poor birth outcomes in an urban Aboriginal birth cohort. *Journal of Paediatrics and Child Health* 44: 342–346.

Freemantle, C. Jane, Anne W. Read, Nicholas H. de Klerk, Daniel McAullay, Ian P. Anderson, Fiona J. Stanley. 2006. Patterns, trends, and increasing disparities in mortality for Aboriginal and non-Aboriginal infants born in Western Australia, 1980–2001: population database study. *Lancet* 367: 1758–1766.

Gilles, Marisa T., Jan E. Dickinson, Alison Cain, Kate A. Turner, Rosemary Mcguckin, Richard Loh, Susan L. Prescott And Martyn A. French. 2007. Perinatal HIV transmission and pregnancy outcomes in indigenous women in Western Australia. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 47: 362–367.

Greenberg, Cheryl R., Louise A. Dilling, G. Robert Thompson, Lorne E. Seargeant, James C. Haworth, Susan Phillips, Alicia Chan, Hilary D. Vallance, Paula P. Waters, Graham Sinclair, Yolanda Lillquist, Ronald J.A. Wanders and Simon E. Olpin. 2009. The paradox of the carnitine palmitoyltransferase type Ia P479L variant in Canadian Aboriginal populations. *Molecular Genetics and Metabolism* 96: 201–207.

Heaman, Maureen I. and Karen Chalmers. 2005. Prevalence and Correlates of Smoking During Pregnancy: A Comparison of Aboriginal and Non-Aboriginal Women in Manitoba. *Birth* 32(4): 299-305

Jacoby, Peter A., Harvey L Coates, Ashwini Arumugaswamy, Dimity Elsbury, Annette Stokes, Ruth Monck, Janine M Finucane, Sharon A Weeks and Deborah Lehmann. 2008. The effect of passive smoking on the risk of otitis media in Aboriginal and non-Aboriginal children in the Kalgoorlie–Boulder region of Western Australia. *Medical Journal of Australia*. 188(10): 599-603.

Lalonde, André B., Christine Butt, Astrid Bucio. 2009. Maternal Health in Canadian Aboriginal Communities: Challenges and Opportunities. *Journal of Obstetrics and Gynaecology Canada* October: 956-962.

Newman, Christy E., Maria Bonar, Heath S. Greville, Sandra C. Thompson, Dawn Bessarab and Susan C. Kippax. 2007. Barriers and incentives to HIV treatment uptake among Aboriginal people in Western Australia. *AIDS* 21(suppl 1):S13–S17.

Oldani, Michael J. 2009. Uncanny Scripts: Understanding Pharmaceutical Emplotment in the Aboriginal Context. *Transcultural Psychiatry* 46(1): 131–156.

Panaretto, Kathryn S., Heather M. Lee, Melvina R. Mitchell, Sarah L. Larkins, Vivienne Manessis, Petra G. Buettner and David Watson. 2006. Prevalence of sexually transmitted infections in pregnant urban Aboriginal and Torres Strait Islander women in northern Australia. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 46: 217–224.

Powell, Jane and A.E. Dugdale. 1997. Obstetric Outcomes in an Aboriginal community: A comparison with the surrounding rural area. *Australia Journal of rural health*. 7: 13-17.

Smith, Dawn A., Nancy C. Edwards, Patricia J. Martens and Colleen Varcoe. 2007. ‘Making a Difference’: A New Care Paradigm for Pregnant and Parenting Aboriginal People. *Canadian Journal Of Public Health* 98(4): 321-325.

Stamp, GE, S Champion, G Anderson, B Warren, D Stuart-Butler, J Doolan, C Boles, L Callaghan, A Foale, and C Muyambi. 2008. Aboriginal maternal and infant care workers: partners in caring for Aboriginal mothers and babies. *The International Electronic Journal of Rural and Remote Health Research, Education, Practice, and Policy*. 1-12.

Wenman, Wanda M., Michel R. Joffres, Ivanna V. Tataryn, and the Edmonton Perinatal Infections Group. 2004. A prospective cohort study of pregnancy risk factors and birth outcomes in Aboriginal women. *Canadian Medical Association Journal* 171(6):585-589.

Westenberg, Leontine, Karin AM van der Klis, Annabelle Chan, Gustaaf Dekker, and Rosemary J Keane. 2004. Aboriginal teenage pregnancies compared with non-Aboriginal in South Australia 1995–1999. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 42(2): 187-192.

Appendix III
Readability Assessments of Consumer Health Publications

Alberta Health Services. Hazards in Pregnancy. Leaflet.
Readability assessments
Flesch Reading Ease: 51.7
Flesch-Kincade Grade Level: 9.7
There are many factors in the environment that can affect the health of the unborn baby. Most people are aware of the common concerns such as X-rays, alcohol, drugs or immunization. However, there are other important things to avoid in pregnancy.

Toxoplasmosis
This is a disease that may cause cold-like symptoms or on apparent illness in the mother. However, it often leads to miscarriage (spontaneous abortion), premature labour and eye or brain defects in the fetus.

Alberta Health Services. Premature Labour. Leaflet
Readability assessments
Flesch Reading Ease: 67
Flesch-Kincade Grade Level: 7.2

Premature (preterm) labor means labor that starts three or more weeks before your baby's due date. Babies who are born early have more health problems. You can help prevent early labor by watching for the following signs of premature (preterm) labor.

Alberta Health Services. Take Charge Routine. Leaflet.
Readability assessments
Flesch Reading Ease: 86.0
Flesch-Kincade Grade Level: 3.2
"Talk to her between contractions. Ask her if what you are doing is helping. Make suggestions: for example, "With the next one, let me help you more. I want you to look at me the moment it starts. We will breathe together so it won't get ahead of us. Okay? Good. You're doing so well. We're really moving now…" Repeat yourself. She may not be able to continue what you tell her for more than a few seconds, but that's fine. Say the same things again and help her continue. This is a difficult time for her. You cannot help her if you decide she cannot handle it. Acknowledge to her and to yourself that it is difficult but not impossible.

Alberta Health Services. Warning Signs. Leaflet.
Readability assessments
Flesch Reading Ease: 35.3
Flesch-Kincade Grade Level: 15.7

During pregnancy, report any of the following signs to your doctor: Vaginal bleeding, abdominal pain, leaking or gushing of fluid from the vagina, sudden swelling of hands, feet or face.

Association for Safe Alternatives in Childbirth. 2010. *Birthissues*.
Readability assessments
Flesch Reading Ease: 57.8
Flesch-Kincade Grade Level: 9.7

Editorial:
"The first birth I attended was a home birth and was also attended by a midwife. I knew little about childbirth so I mainly watched. I observed a calm, gentle, loving transition into motherhood. Rather than being scared, I was envious of this woman's ecstatic experience and felt a strong desire to experience it too. Little did I know that the birth I had witnessed was a rare occurrence in Canada and that most women are afraid of giving birth." 65.8 – Grade 8

My Wonderful Home Birth:
"After that, I was not allowed to get out of bed or to have the monitor removed. I was given no explanation and the monitor seemed to be the most important thing, with everyone's attention focused on it. There was nothing to do but try to sleep, which was what I tried desperately to do. I was completely exhausted. My instincts were telling me that I needed to get up and move, but every time I asked about it, the nurse would say "We just need to monitor you for fifteen more minutes." Each fifteen minutes would turn into hours. So I would fall back asleep again, too tired to fight the pain, just letting it flow over me. " 73.6 Grade 7.2

Waterbirth:
"Waterbirth is part of a new birth culture. While there are certain cultures in which babies have been born in the sea or rivers for centuries, like in Ancient Egypt, with the Panama Indians, the Maoris of New Zealand or the inhabitants of Hawaii and Samoa, it has never been a widespread phenomena.

In the Western world, the first known waterbirth happened in France around 200 years ago. There are no records of waterbirths for over a century after that. During the 1960s, Soviet researcher Igor Charkovsky undertook considerable research into the safety and possible benefits of water birth in the Soviet Union." 41.3, Grade 12.6

In Honour of Jenny Flett: Fort Chipewyan Midwife and Mother:

"I learned that Jenny Flett was from a Metis family in Fort Chipewyan. The Fort, as it is commonly known is far from so-called civilization. It is located on the western tip of Lake Athabasca, adjacent to Wood Buffalo National Park, in the most eastern extremity of northern Alberta. It is about 600km northeast of

Edmonton with no permanent roads, the primary method of transportation being air. Fort Chipewyan is not only in an extreme part of the world, it also has extreme temperatures that range from plus 30 degrees Celsius to minus 50, with hardly any rain." 48.8 grade 11.3

Boyd, Susan C. and Marcellus, Lenora. 2007. *With Child. Substance Use During Pregnancy: A Woman-Centred Approach*. Halifax: Fernwood Publishing
Readability assessments
Flesch Reading Ease: 14.8
Flesch-Kincade Grade Level: 18.3
"Drug use during pregnancy is not a new phenomenon. While drug use occurs throughout the social spectrum, problem drug use associated with significant medical and social problems is closely associated with socio-economic deprivation. It is therefore one of many behaviours and lifestyles associated with or a consequence of poverty. Despite their link with poverty, such problems are often seen as being under individual control and, therefore, an individual responsibility: society is increasingly critical of individuals who have such problems. Pregnant women who engage in such unhealthy activities are judged particularly harshly although, paradoxically, pregnant women as a group are particularly successful in improving their lifestyles. Nevertheless, drug use by pregnant women is widely viewed as demonstrating a lack of maternal commitment and pregnant, drug-using women have been widely portrayed as deceitful and non-compliant, concealing or underreporting their drug use and attending late and erratically – if at all – for antenatal care. Any adverse outcomes for mothers and/or babies have been blamed on drug use and a lack of antenatal care: traditional management has therefore been judgmental and punitive, centred on developing tests to detect maternal drug use and regarded maternal drug use *per se* as child abuse and consequently a child protection issue." 6

Calgary Health Region. 2005. *Best Beginning*. Calgary, AB: Calgary Health Region.
Readability assessments
Flesch Reading Ease: 62
Flesch-Kincade Grade Level: 7.7

"Pregnancy is a time of change, both physically and emotionally. Even a planned pregnancy can cause emotional highs and lows. Some of these feelings can be caused by hormonal changes during pregnancy.

Other feelings are caused by the changes that pregnancy and becoming a parent bring to your life and to your relationships. If you feel long periods of sadness, tell your caregiver or your family members. Others may make comments about how "big" or "small" you are. Comments from others are about their beliefs and not about you. It is okay to let people know when comments make you feel uncomfortable." 13

Capital Health – Community Health Services. Having a Healthy Baby. Leaflet
Readability assessments
Flesch Reading Ease: 51.8
Flesch-Kincade Grade Level: 9.5

Childbirth classes are taught by community health nurses at various public health centres. The classes focus on preparing you for your labor and birth. Classes will cover a variety of topics.

The goal of the classes is to help you have a better experience giving birth. The classes include health information provided by the community health nurse, a film or video, and discussions with other parents.

A free prenatal breastfeeding class is also offered as an 'extra' class to the regular prenatal series. This includes practical information to help you breastfeed and a demonstration of skills and techniques for breastfeeding.

Murkoff, Heidi and Mazel, Sharon. 2008. *What to Expect when You're Expecting* 4th Edition. New York: Workman Publishing.
Readability assessments
Flesch Reading Ease: 82.3
Flesch-Kincade Grade Level: 4.9

"Have two (or more) passengers aboard the mother ship? Even if you'd been hoping for multiples, your first response to the news that you're carrying more than one can be all over the emotional ma; - ranging from disbelief to joy, from excitement to trepidation (make that fear). And in between all the whoops of delight and buckets of tears will come the questions: Will the babies be healthy? Will I be healthy? Will I be able to stick with my regular practitioner, or will I have to see a specialist? How much food will I have to eat, and how much weight do I have to gain? Will there be enough room inside of me for two babies? Will I be able to carry them to term? Will I have to go on bed rest? Will giving birth be twice as hard?"

Murray, Linda, Hennen, Leah, and Scott, Jim 2005. *The BabyCenter Essential Guide to Pregnancy and Birth: Expert Advice and Real-World Wisdom from the Top Pregnancy and Parenting Resource*. Emmaus, PA: Rodale Inc.
Readability assessments
Flesch Reading Ease: 40.1
Flesch-Kincade Grade Level: 12.5

"Some old friends – heartburn and constipation – may take center stage now. The pregnancy hormone progesterone relaxes smooth muscle tissue throughout your body, including your gastrointestinal tract. This relaxation, coupled with the crowding in your abdomen, slows digestion, which in turn can cause gas and heartburn – especially after a big meal – and contribute to constipation as well. Your growing uterus may also be contributing to hemorrhoids. These swollen blood vessels in your rectal area, which can cause pain, itching, and burning, are common during pregnancy – especially if you're constipated – and usually clear up in the weeks after giving birth." 259

Schuurmans, Nan, Senikas, Vyta, and Lalonde, Andre B. 2009. *Healthy Beginnings: Giving your baby the best start, from preconception to birth*. 4th Edition. Mississauga, ON: John Wiley & Sons Canada, Ltd
Readability assessments
Flesch Reading Ease: 58.1
Flesch-Kincade Grade Level: 10.1

Rupture the membranes: If the membranes of the amniotic sac are still in place, the next step may be to break them. This is done using a simple method: a specialized instrument is inserted into the cervical canal to puncture the membrane – the procedure feels like a routine examination of your vagina. For most women, labour will begin within 12 hours after the membranes are ruptured. This is most true if the cervix is also ripe. Some women have their membranes ruptured in order to speed up labour that has already started on its own, but without the membranes rupturing first. 147

Smoke-Free Families. 2001. *Small steps matter: A guide to help you quit smoking*. Chapel Hill, NC: Smoke Free Families.
Readability assessments
Flesch Reading Ease: 64.0
Flesch-Kincade Grade Level: 8.3

When you're getting ready to quit, it also helps to think about the times you usually smoke. For example, do you smoke when drinking coffee/tea, after a meal, when talking on the phone, after finishing a chore, when watching TV, when driving, etc.? These can be high risk situations for returning to smoking. Identifying these situations and planning ahead, will help you stay smoke-free.

Stone, Joanne, Eddleman, Keith, Duenwald, Mary, and Pearson, Janice. 2007. *Pregnancy for Canadians for Dummies: A Reference for the Rest of Us!* Mississauga, ON: John Wiley & Sons Canada, Ltd.

Readability assessments
Flesch Reading Ease: 27.5
Flesch-Kincade Grade Level: 15.8

"Clearly, pregnant women who abuse alcohol put their babies at risk of fetal alcohol syndrome, which encompasses a wide variety of birth defects (including growth problems, heart defects, mental retardation, or abnormalities of the face or limbs). Medical science hasn't defined an absolute safe level of alcohol intake during pregnancy. Scientific data show that daily drinking or heavy binge drinking can lead to serious complications, and Health Canada recommends that you do not drink any alcohol during pregnancy." 40

Stoppard, Miriam, M.D., F.R.C.P. 2009. *Dr. Miriam Stoppard's New Pregnancy and Birth Book: The classic guide for parents-to-be. Revised and Updated.* New York: Ballantine Books.

Readability assessments
Flesch Reading Ease: 68.3
Flesch-Kincade Grade Level: 8.5
"The professor of obstetrics at my medical school used to tell us that there was no right time to have a baby because something else always came up in a couple's professional or domestic life. The corollary of this is that there is no wrong time to have a bay either. Paramount in the decision to have a baby, however is that it is wanted; ideally it should also be planned. Even planning is often not as perfect as we would like nor, in my opinion, should it be. For one thing couples may not find it easy to conceive once they have made the decision, so be prepared for the best planning to go awry." 12

Street Works. 2009. *Oh Shit, I'm Pregnant… Your guide to being pregnant on the street*. Edmonton: Street Works.
Readability assessments
Flesch Reading Ease: 88.3
Flesch-Kincade Grade Level: 5.7

"This might be the first time you have ever been pregnant. You might think it's a good thing, or a not so good thing. But no matter what, there is a lot of stuff to know and you will probably have a lot of questions. In this book, we want to let you know some of the things we have learned and help you be healthy while you're pregnant, when you deliver, and after you have the baby." 3

Success by 6 Community Team, the Bissell Centre, and Health for Two. Fetal Alcohol Spectrum Disorder Prevention Project. Edmonton: Success by 6.

Insufficient text to analyze.