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PREDICTING SATISFACTION WITH A MIDWIFE OR OBSTETRICIAN BIRTH
ATTENDANT

By

Karey L. Wilson

A Thesis
Submitted to the Faculty of Graduate Studies and Research
through the Department of Psychology
in Partial Fulfillment of the Requirements for
the Degree of Master of Arts at the
University of Windsor

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ABSTRACT

Birth attendants play an important role in women's pregnancy and childbirth experiences. In this study, several individual difference variables thought to be related to type of birth attendant chosen and satisfaction with birth attendant were investigated. A sample of 112 pregnant women with either a midwife or obstetrician completed measures of personality, natural and medical birth philosophy, preferred and perceived relational style of healthcare professional, and satisfaction with birth attendant. Results revealed that openness to new experience and medical birth philosophy predicted preferred relational style, and that midwife group membership was predicted by natural birth philosophy. Results also revealed that satisfaction in the midwife group was predicted by natural birth philosophy, and that satisfaction in the obstetrician group was predicted by health self-efficacy. Because of the limited research in this area, findings such as the importance of natural birth philosophy for both birth attendant choice and satisfaction with midwife warrant further investigation.

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Chapter 1

Introduction

Pregnancy and childbirth are important events in many women's lives. In preparation for birth a woman makes many decisions that shape her experience. Among these decisions is the type of professional that will provide assistance during the pregnancy and delivery.

Midwives and obstetricians can provide primary care during childbirth. This study will investigate a) the extent to which the fit between the preferred and actual birth attendant relational style can predict satisfaction with a woman's birth attendant, b) individual difference factors that may contribute to the relational style a woman prefers in her birth attendant, and c) individual difference factors that may influence a woman to select either a midwife or obstetrician as a birth attendant.

As an introduction to the research, I will describe the unique roles of midwives and obstetricians, and then highlight midwifery's growing appeal using primarily Canadian descriptive statistics. I will then describe parallels between midwifery and complementary and alternative medicine (CAM) as a means of generating research hypotheses concerning the factors underlying birth attendant choice. Finally I will outline this exploratory study.

Midwives and Obstetricians as Birth Attendants

Midwives have been healers since ancient times. Before the ages of formal education, they were seen to possess special skills and even magical powers (Sullivan, 2000). Historically in western culture, childbearing practice was a woman's domain. Midwives and female social supports generally assisted births until the mid 1800s (Ehrenreich & English, 1973). In the late 1700s and early 1800s, male attendants

increasingly supervised birth. Culminating with the government sanctioned Flexner report in 1910, physicians were given “cultural authority” over people’s health (Ehrenreich & English, 1973). They were the ones to make diagnostic decisions and order appropriate treatments. Educational institutions were created to train male physicians. Women were barred from such institutions. Physician-attended births, which signified wealth, also became more fashionable. As male physicians gained popularity as birth attendants, they began to take over the work of the traditional midwife.

Gradually home birth was replaced by hospital birth beginning with upper class women, and midwives were permitted to care only for poor and minority women. By the mid 1900s hospital birth was standard practice. The modern medical movement gained strength throughout the 19th and early 20th centuries. By this time almost all births were in hospital and supervised by a physician. Between 1900 and 1935 the number of births attended by midwives decreased from 50% to 12.5%. During this time birth was seen as a medical and pathological event to be handled by a male doctor in a hospital setting. Nurse-midwives emerged in the 1920s, and eventually gained hospital privileges. They began to adopt the interventionist practices of physicians.

In recent decades midwifery has re-emerged as a legitimate alternative to the medical model of maternity care. Since the 1970s, several North American provinces and states have made midwifery a profession under the law. In Canada, four universities currently offer midwifery programs. Research supporting the value of midwifery has also begun to emerge (Sullivan, 2000). Modern obstetrics has been shown in research to garner equal outcomes to midwifery, which involves considerably less technological intervention and cost (Oakley et al., 1996; Rosenblatt et al., 1997). In Canada, utilization of midwifery has increased sevenfold in roughly the past ten years. Midwifery is a

certified profession in several provinces, and continues to gain momentum although currently fewer than 5% of pregnant women use a midwife as their primary maternity caregiver. However, the growing gap in healthcare resources in North America also presents an opportunity for increased utilization of midwifery (King & Barger, 2005). Perhaps if midwifery is seen as a solution to the growing health care crisis it will be considered more often as an option for low-risk maternity care, and more training programs will be developed.

Midwives can provide primary care for women from early in pregnancy through the post-partum period. Their emphasis is on continuity of care, the development of a trusting relationship with their clients, and informed choice, in particular regarding a woman's decision to give birth at home or in hospital (Canadian Association of Midwives, 2004; OMHLTC: Ontario Ministry of Health and Long-Term Care, 2005). As well, midwives emphasize prevention in their approach (OMHLTC, 2005). Midwives work in collaboration with other health care professionals, and are able to prescribe some medications and order tests. They can also admit women to hospital during the course of a birth (OMHLTC, 2005).

Certification requirements are similar across the four Canadian provinces that grant midwifery professional status. The College of Midwives of British Columbia (CMBC) was created in 1998 (College of Midwives of British Columbia). The CMBC requires graduation from a certified midwifery program or equivalent competency, as some midwives are trained by an apprenticeship model. The four Canadian certified midwifery programs are at Ryerson University, McMaster University, Laurentian University, and the University of British Columbia. As well, to register midwives must have attended at least 60 births in the last five years, 55 being conducted under the

midwifery principles of care. Only 5 of these 60 may have taken place in hospital.

Midwives must also pass a registration exam and have current certification in neonatal resuscitation and CPR.

The College of Midwives of Ontario (CMO) was created in 1994, and requires that midwives complete a certified midwifery program (Association of Ontario Midwives). The CMO requires that midwives successfully complete a certified midwifery program thereby demonstrating core competencies including practical experience as listed above. Similarly, The College of Midwives of Manitoba (CMM) was developed in 2000. The CMM requires completion of a program of study leading to “a degree, diploma, or certificate in midwifery” (College of Midwives of Manitoba, 2003). Manitoba also recognizes the apprenticeship model, and midwives who can demonstrate competencies in the core areas as assessed by the college may also register. Midwifery gained professional status in Quebec in 1999 (Universite du Quebec a Trois Rivieres, 2005). Registration there is granted by the Ordre des Sages-Femmes du Quebec, and the University of Quebec offers a midwifery program in French.

Midwifery is known to have a ‘woman-centred’ approach; maternity care choices are guided by a woman’s definition of childbirth instead of by the mainstream medical culture (Adams & Borgeault, 2003; Howell-White, 1997). Midwifery aims to incorporate a woman’s individual experience into her care whenever possible. Her entire set of attitudes and feelings about birth are considered, and so midwifery is thought to be more ‘holistic’ than mainstream obstetrics (Howell-White, 1997). Birth is thought of as natural instead of as a medical event; in the absence of any risk midwives trust a woman’s ability to give birth naturally. Midwifery also maintains a more prevention-oriented approach to

health care than mainstream obstetrics. Some feminists argue that midwifery can provide women with greater autonomy over the birth process (Adams and Bourgeault, 2003).

Several differences between obstetrics and midwifery are apparent in the literature. Researchers have found obstetric care to take a ‘problem management’ approach to women’s maternity care, resulting in frequent medical intervention and greater reliance on technology (Howell-White 1997; Lothian, 2001; Oakley et al., 1997; Waldenstrom, 1999). Controlling for factors like cost and medical complications during birth, obstetricians tend to use more resources than midwives, and they perform more invasive procedures during labour and delivery (Oakley et al., 1996; Rosenblatt et al., 1997). Essentially, in mainstream obstetric care, the prevalent philosophy is that birth is primarily a medical procedure.

In contrast, midwife maternity care reflects a philosophy of birth as a natural process that typically requires minimal intervention. Researchers have found midwifery is associated with higher levels of satisfaction while using fewer medical interventions in samples of women with low-risk births (Oakley et al., 1996; Paine et al., 2000; Rosenblatt et al., 1997). Midwives have also been shown to execute longer face-to-face visits than obstetricians, and to include more counselling and education in their interaction with clients (Paine et al., 2000). In terms of processes of care during childbirth, women who choose midwives tend to have lower rates of interventions such as epidural anaesthesia, continuous fetal monitoring, and induction of labour (Callister, 1995; Oakley et al., 1996; Rosenblatt et al., 1997). However, midwives usually care for low-risk births only, and leave high-risk births to obstetricians.

An Increasing Demand for Midwifery Services

Currently in Canada, obstetricians attend a much higher percentage of births than midwives (88% compared to 2% between 2000-2001; The Canadian Institute of Health Information, CIHI, 2004). However, in recent decades midwifery has been regaining popularity in Canada (Adams & Borgeault, 2003). In Ontario for example, demands for midwifery care exceed the availability of midwives (Auditor General of Ontario, 2002). Between April 2003 and March 2004, 8000 Ontario women received care from a midwife. An additional 5000 women requested midwives but could not be accommodated (Association of Ontario Midwives, 2004). Also, the number of births attended by midwives in Ontario hospitals multiplied by seven between 1994-1995 and 2000-2001 (CIHI, 2004), and the CIHI reported that the number of practicing midwives in Canada increased from 96 to 413 (330%) between 1993 and 2002 (CIHI, 2004). Interest in midwifery health care continues to grow and the number of midwives being trained is also increasing. Midwives attend approximately 5% of births in provinces that fund their services, and 2% of the total births in Canada. A recent US survey indicated that obstetricians attend 80% of births (Declercq, Sakala, Corry, Applebaum, & Risher, 2002), while midwives attend 10% (Declercq et al., 2002, King & Barger, 2005). In Canada, obstetricians attend approximately 61% of vaginal births and 95% of c-sections and multiple births (CIHI, 2004). Overall, 88% of Canadian mothers had physicians for prenatal care, whereas 3% used midwives for prenatal care in the 2000-2001 year.

Midwifery as an 'Alternative' Healthcare Option

Increased interest in midwifery may be part of a larger movement toward alternatives to conventional medicine practices. Complementary and alternative medicine (CAM) has grown more popular in the UK and US in recent decades (Astin, 1998; Hill, 2003). Some aspects of midwifery, such as home birth, have been referred to as

‘alternatives’ to the mainstream model of giving birth in hospital (Viisainen, 2001). Some of the differences between midwifery and obstetric medicine parallel the differences between orthodox medicine and complementary-alternative medicine. In comparison to obstetricians, midwives generally take more time during visits and focus more on building a relationship with their patients. Similarly, practitioners of complementary and alternative medicines are often valued for their emphasis on building a quality relationship with their clients (Cartright & Torr, 2005). They also work from a more holistic model of care, and try to incorporate a woman’s emotions, physical health, and other individual characteristics into her care as much as possible (Howell-White, 1997). Like CAM professions such as homeopathy, naturopathy, herbalism, and chiropractics, midwifery also emphasizes a holistic perspective that makes the whole person the focus of treatment instead of specific symptoms. A holistic view of health, a focus on the client-practitioner relationship, an emphasis on preventing illness, and confidence in the body’s inherent capacity to heal itself, for example, are principles shared by CAM and midwifery. Midwifery shares many CAM values and can therefore be seen as a sub movement of the greater alternative health movement.

CAM Literature as a Framework for Understanding Maternity Care

Research in complementary and alternative medicine may provide a framework for understanding why women become interested in midwifery. Since midwifery appears to be part of the alternative health movement, factors known to predict CAM use may also be of value in understanding the decision to use a midwife. For example, factors such as personality, philosophy, and satisfaction with type of care are known to predict alternative medicine use. Knowledge of whether these factors also predict midwifery use would be valuable because it will allow midwives to better understand the clients they

serve. Similarly, obstetricians could also benefit from better understanding the patients they serve by gaining knowledge of the individual characteristics known to predict obstetrician use.

Identifying factors that contribute to satisfaction with birth attendant can be a step toward effectively meeting women's maternity care needs. It would be useful to know what individual factors contribute to a woman's expectations of the birth attendant relationship since expectations of the birth attendant relationship may predict satisfaction with maternity care. Isolating factors that predict midwifery or obstetrician use could help establish which variables predict birth attendant choice (Callister, 1995). Further investigation of these factors will lead to a better understanding of what contributes to expectations of and satisfaction with maternity care.

Is Relational Style a Component of Satisfaction?

Patients' satisfaction with health care is thought to be related to their expectations regarding the quality of treatment provided, as well as the quality of the doctor-patient relationship (Hsieh & Kagle, 1991). Satisfaction is also thought to play an important role in determining alternative medicine use. For example, several researchers have found that CAM consumers were more dissatisfied with orthodox medical care than non CAM consumers (Furnham & Bhagrath, 1993; Furnham & Kirkcaldy, 1996; Sugimoto & Furnham, 1999; Kroesen, Baldwin, Brooks, & Bell, 2002; Sirois & Gick, 2002; Richardson, 2004), suggesting that CAM consumers may have been 'pushed away' from orthodox medicine after dissatisfying healthcare experiences (Furnham & Kirkcaldy, 1996, Kelner & Wellman, 1997).

Several factors have been studied in relation to satisfaction with health care. These include the interpersonal manner of the provider, the technical competence of providers,

outcomes of care, and availability of the provider (Ware, Snyder, Wright, & Davies, 1983). The interpersonal manner of health care providers has been found to be an important component of satisfaction with treatment (Ben-Sira, 1976). Ben-Sira labelled this interpersonal manner “affective behaviour.” Affective behaviour was a patient’s ratings of the physician’s devotion and interest in the patient’s problems, as well as the amount of time the physician spent with the patient. This construct, reflecting the way a physician behaves emotionally toward the patient on a personal level, was the most important correlate of satisfaction.

Similarly, a patient’s expectations of a medical interaction have been demonstrated to be a strong predictor of satisfaction (Hsieh & Kagle, 1991; Jackson, Chamberlain, & Kroenke, 2001). The patient’s expectation of the professional’s ‘relational style’ has been shown to play an important role in satisfaction with health care professional (Ditto, Moore, Hilton, & Kalish, 1995). Ditto et al. found that participants who were “matched” with their preferred style of physician were more satisfied with medical care as measured in vignettes. Two different dimensions of physician relational style were examined: authoritarian and egalitarian. The authoritarian (“doctor-centred”) style describes the doctor who assumes an expert role with the patient. The authoritarian doctor makes health-related decisions and takes responsibility for the patient’s health. In contrast, the egalitarian (“patient-centred”) style describes the doctor who assumes more of a consultant role with the patient. The egalitarian doctor guides the patient’s own decision-making process, and the doctor and patient share responsibility for the patient’s health.

The findings of Ditto et al.(1995) support the notion that patients are generally most satisfied with healthcare when their expectation of physician style, either

authoritarian or egalitarian, is met. However, people with an authoritarian preference were less selective about favouring one style in comparison to those with an egalitarian preference. In other words, satisfaction was higher when physician style matched the expected relational style for both groups, but this match was less important for those with an authoritarian preference. These results suggest that people who expect an egalitarian physician style may be less satisfied with an authoritarian physician, whereas people who expect an authoritarian physician style are likely to accept either style. It appears that satisfaction with healthcare may rest within the patient-professional relationship, but it is still uncertain whether this pattern applies in a maternity care situation.

Based on the above description of the midwifery and obstetric professions, one may expect midwives to be more egalitarian in relating to women whereas obstetricians may be more authoritarian. The structure, training, and focus of each profession is different, and it is possible that one profession reflects one style over the other. Alternatively, relational style may overlap between the two professions. Either way, relational style may be an important variable underlying birth attendant choice that contributes to satisfaction with maternity care.

The observed differences between midwife and obstetric care necessitate further research on the fit between women and their caregivers during pregnancy and birth (Aaronson, 1987). A good fit between a woman's expectations and what her birth attendant provides may be an important determinant of satisfaction with maternity care. However there is no available research that focuses specifically on what factors contribute to a good fit between a woman and her birth attendant, or what kind of fit best relates to satisfaction.

Individual Difference Factors and Midwifery Use

The alternative medicine literature offers possible explanations for why consumers of healthcare choose alternative healthcare such as midwifery. Several individual difference factors have been shown to discriminate between consumers of CAM and nonusers of CAM. Personality traits are among the variables that may predict such health care choices. Of the Big-Five personality factors (Costa & McCrea, 1999), openness to new experiences has been shown to predict CAM use, with those scoring higher on the openness dimension more likely to use CAM (Sirois & Gick, 2002, Honda & Jacobson, 2005). Costa and McCrea (1999) define high openness as a tendency to be creative, witty, original, and open to new experiences. It seems logical that women who choose a midwife would be higher in openness than women who choose an obstetrician since such a choice is relatively less conventional.

In addition to personality dimensions, personal philosophy may also relate to CAM use, and to midwifery use. O'Callaghan and Jordan (2003) found that a post-modern philosophy could significantly predict attitudes toward CAM and CAM use. These researchers conceptualized a post-modern philosophy toward health and CAM as a critical stance toward scientific and other authorities, a holistic view of health, a sense of increased consumerism, and a sense of increased individual responsibility for health. Similarly, Astin (1998) found that a holistic view of health and an interest in feminism, environmentalism, and spiritual/personal growth psychology predicted alternative medicine use. A similar relationship may exist between a post-modern health philosophy and midwifery use. As part of this study, I constructed a 'birth philosophy scale' to measure whether a woman believes birth to be a natural or medical event. I hypothesized that women on the 'natural' end of the spectrum would hold values close to the post

modern ones described by Callaghan and Jordan (2003), whereas women on the ‘medical’ end will endorse items reflecting a positive view of technology, a trust in authority, a less holistic view of health, and less individual control over health.

Another individual factor that has been studied in relation to CAM use is control beliefs as captured by health locus of control scales. Some researchers have found that CAM users believe less in healthcare provider control over health (Furnham & Kirkcaldy, 1996) or more in self-control over health (Furnham & Bhagrath, 1993), but others have found no relationship between control beliefs and CAM use (Sirois & Gick, 2002; Astin, 1998). The ambiguity of these results suggests that measures of health locus of control may not be capturing aspects of control beliefs that are most relevant to alternative healthcare choices. Health locus of control measures the extent to which people believe that their health is controlled by internal versus external forces, external forces being either “powerful others” like healthcare professionals, or “chance” (Wallston, Wallston, & DeVellis, 1978). This may not be a suitable measure of control beliefs regarding alternative healthcare choices (including midwifery), since by seeking help from a healthcare professional, a person acknowledges that some degree of control over their health resides with a powerful other. Particularly in the case of giving birth, most women do seek expert care from a professional. A related but more relevant construct is health related self-efficacy; the degree to which a person feels competent and confident enough to make health-related decisions and take actions towards managing their own health (Sirois, 2004).

There is some research concerning the relationship between control beliefs and choice of birth attendant. Women who choose midwives have been shown to have lower levels of reliance on powerful others (Aaronson, 1987; Callister, 1995), and higher levels

of active participation in childbirth than women who choose obstetricians (Callister, 1995). Further, Viisainen (2001) found self-determination and control to be important in how women defined the idea of 'natural birth' in their analysis of Finnish women's birth narratives.

The Present Study

As satisfaction with the healthcare provider is related to satisfaction with healthcare, we can assume that studying satisfaction with birth attendant is an important step in understanding satisfaction with maternity care. To date, there is no research that connects satisfaction with maternity care to the relationship with the birth attendant. In the present study, I investigated whether a match between preferred and actual relational style was a key variable in predicting women's satisfaction with their birth attendants. I also investigated the relationships between several individual difference factors and preferred birth attendant relational style as well as choice of birth attendant. This research design was guided by: 1) alternative medicine research, 2) specific research related to the choice of birth attendant, 3) patient satisfaction research that has established a link between patient expectations and patient satisfaction, and 4) research suggesting that the caregiver-patient relationship plays a role in patient satisfaction.

This research had three purposes: 1) to establish the importance of the fit between a woman's preferred relational style and the actual relational style of her birth attendant in predicting satisfaction with birth attendant, 2) to investigate the link between various individual factors and preferred style of relationship with birth attendant, and 3) to replicate the established link between certain predictors of midwife and obstetrician choice in a Canadian sample. For the purposes of this study I measured satisfaction with birth attendant, as well as preferred relational style of healthcare professionals

(expectations of the birth attendant relationship), perceived relational style of birth attendant, and individual difference factors (health related self-efficacy, personality factors, and birth philosophy).

Previous research links midwife choice with beliefs similar to those underlying the egalitarian physician relational model; women choosing a midwife were expected to prefer a more egalitarian relationship with their birth attendants. Women choosing an obstetrician were expected to prefer a more authoritarian relationship with their birth attendants. I also expected that weaker control beliefs, a medical philosophy of birth, and lower scores on the openness to new experience dimension would more logically contribute to an authoritarian (i. e., obstetrician) preference. Midwife group membership was thought to be predicted by an egalitarian preference, which would be related to high health self-efficacy, a natural philosophy of birth, and high openness to new experience. The match between preferred and perceived relational style was expected to be the most powerful predictor of satisfaction with maternity care.

Additionally, researchers have tentatively established that in general, women who see childbirth as a risky endeavour requiring medical attention choose obstetricians, whereas those who see childbirth as a natural process choose midwives (Howell-White, 1997). I therefore expected that a medical birth philosophy would predict obstetrician choice, whereas a natural birth philosophy would predict midwife choice. Based on previous research, I also anticipated that women with stronger beliefs in personal control over their health would tend to choose a midwife. Health locus of control has not been conclusively shown to be useful in understanding the beliefs and motivations of CAM users, so I examined health-related self-efficacy and its relation to the use of midwifery instead.

Chapter 2

Method

Participants

To be eligible to participate in this study, women had to reside and plan to give birth in a Canadian province that publicly funded midwifery services (British Columbia, Manitoba, Ontario, or Quebec). A minimum of three consults with their midwife or obstetrician birth attendant was also required to allow participants adequate time to form an opinion about the birth attendant relationship. Women with high-risk pregnancies were included in the study in the interest of having adequate sample size. All statistical analyses were run with and without participants with high-risk pregnancies to determine whether being high-risk had an effect on the measured variables. No differences in the outcomes of the analyses were found when the high-risk participants were included or excluded from the sample data.

A total of 112 participants were included in the study. Although 117 surveys were completed and returned, two were excluded because they were duplicate surveys and three were excluded because they contained excessive missing data.

Procedure

Surveys were administered either online or by mail depending on the preference of the participant. The sample contained 109 online surveys and three mail-in paper surveys.

Pregnant women interested in completing the survey online went to the survey website which was linked to the University of Windsor website. To complete the survey, participants would first access the project web page. This page gave a brief overview of the study and the eligibility criteria, along with a link to the letter of information

(Appendix I) approved by the university research ethics board. The letter of information outlined the study and participant rights and responsibilities. Confidentiality of responses was highlighted. The anonymity of participant responses was emphasized in the hopes that they would feel comfortable commenting freely on their birth attendant relationships without fearing penalty. Participants were informed that by continuing after reading the letter they consented to research and to the publication of their group findings and their individual qualitative comments with identifying information removed. They were also advised to print out the letter for their records, as it contained the researchers' contact information. If in agreement, participants then proceeded to the survey questions by clicking "I agree." Participants were permitted to leave items blank if they wanted. After completing the survey, participants clicked "submit" and their responses were stored automatically in the secured university database without any identifying information or means of being traced. After submission a debriefing statement appeared thanking participants and summarizing the research questions. Information about when results would be posted was also provided. After the project is complete, a summary of results will be made available to participants on the project web page. Those participants who had expressed interest will be sent summaries directly via email. If participants preferred, they could contact the researcher to request a paper copy of the survey by mail. Mail-in packages included an instruction sheet, letter of information, the survey, a postage-paid envelope, and a debriefing statement.

The survey was advertised in three ways. First, packages containing a recruitment letter introducing the study, a display sign, and 15 tearsheets listing the website were mailed to midwife and obstetrician practices in the four designated provinces. Second, recruitment letters were emailed to moderators of Internet forums (administrators of

online communities) for pregnant women and mothers. If moderators gave permission a flyer advertising the study and the link to the survey was posted on discussion boards. Third, a link to the study was advertised on social science research websites. Fourth, a teacher of a childcare class in the surrounding community agreed to distribute flyers to her students.

Materials

The survey included demographic information, six quantitative measures of personality and other factors related to health and health care expectations, and qualitative open-ended questions about the maternity care experience. The survey document was reformatted into a web page that was part of the university website. Completed surveys were automatically stored as data files in the university server. Each component of the survey is described below.

Demographics. The demographics collected (Appendix A) included age, education, financial status, employment status, ethnic background, province of residence, relationship status, and psychiatric diagnoses. Additional demographics specific to the research questions were also collected including primary birth attendant, number of previous births, week of pregnancy, number of consults with birth attendant, risk level of pregnancy, availability of midwives, and whether or not the participant considered the midwifery option.

Health Self-Efficacy. Control beliefs specific to health were assessed through the Health Self-efficacy subscale of Sirois' (2004) Control Beliefs Inventory (CBI, Appendix B). This subscale contains eight items measuring competence and confidence of respondents in ability to manage their health. Participants rated each item on a six point Likert scale from "strongly disagree" to "strongly agree." The Health Self-efficacy scale

contains five positively scored items (e. g., “I am confident in my ability to make the right decisions about my health”) and three negatively scored items (e. g., “when it comes to my health, I often feel unable to do what I know should be done”). The Health Self - efficacy subscale has demonstrated Cronbach’s alpha levels ranging from .82 to .86 in three different samples. The subscale also displayed good convergent validity ($r = .45$, Sirois, 2003) with Schwarzer and Jerusalem’s Generalized Self-Efficacy scale (1995). In the present sample, the Health Self-efficacy subscale demonstrated adequate internal consistency ($\alpha = .77$).

Big Five Inventory. Personality traits were assessed by John and Srivastava’s (1999) Big Five Inventory (BFI, Appendix C). The BFI is a widely used and well-validated measure based on the five-factor model of personality. It assesses respondent characteristics on each of the five theorized dimensions: openness versus closedness to new experience, conscientiousness versus lack of direction, extraversion versus introversion, agreeableness versus antagonism, and neuroticism versus emotional stability. Special attention was given to openness to new experience since it has been found to be a relevant variable in analogous research into the psychology of alternative medicine users (Sirois & Gick, 2002; Honda & Jacobson, 2005). Openness versus closedness to new experience demonstrated good internal consistency ($\alpha = .74$, $N = 112$), as did neuroticism versus emotional stability ($\alpha = .83$, $N = 112$).

Birth Philosophy. An original measure was developed to assess birth philosophy (Appendix D). Items were based on previous research that suggests two different philosophies of birth: the medical and the natural (Viisainen, 2001; Howell-White, 1997; Lothian, 2001). Available literature on types of birth philosophy deems the development of a quantitative measure appropriate. The natural birth philosophy was characterized by

a desire for active involvement in childbirth decisions, a preference for minimal interventions, and an interest in having a quality birth experience. Its items also reflected the importance of the birth attendant relationship. The medical birth philosophy was characterized by a tendency to entrust others to make decisions regarding care, a sense of comfort with medical interventions and technological assistance, and a perception of birth as a risky procedure. Items on this measure reflected either a medical birth philosophy (“Women depend on professionals to ensure they have a safe delivery”) or a natural birth philosophy (“Some routine medical interventions during labour seem unnecessary”). An 11-item scale was created to measure the proposed natural dimension of birth philosophy, and another 11-item scale was created to measure the medical dimension, for a total of 22 items. Items were scored on a 6-point Likert type scale ranging from “strongly disagree” to strongly agree.” The items had high face validity because they reflect the two philosophies as described in the literature.

To assess the reliability and validity of the birth philosophy scale, a factor analysis was performed. A principal axis factor analysis was performed in SPSS on the 22-item birth philosophy scale. Analysis of the scree plot revealed two factors, which affirmed the a priori assumption that there were two distinct scales, measuring medical birth philosophy and natural birth philosophy. A second factor analysis was then performed to extract the two factors. Minimum loading for items to be retained was .32, as recommended by Tabachnick and Fidell (2003). Two items (numbers 9 and 14) were discarded. One of these items loaded on both factors equally, and one loaded low on both factors. The 11 items comprising the medical birth philosophy scale had loadings from .36 to .78. on the first factor (See Table 1). The 9 items comprising the natural birth philosophy scale had loadings from .46 to .81 on the second factor. The two factors were

not highly related, correlating at $-.44$, suggesting that the scale had two separate dimensions. The scale was therefore divided into two subscales to reflect the two dimensions. The reliability of the two subscales was then tested. The 11-item medical birth philosophy scale had good internal consistency ($\alpha = .87$). The 9-item natural birth philosophy scale also had good internal consistency ($\alpha = .85$). Mean scores were then calculated for each of the two scales for the main analyses. A higher score on the medical birth philosophy scale reflected a more medical birth philosophy, and a higher score on the natural birth philosophy scale reflected a more natural birth philosophy.

Preferred Relational Style of Health Care Professionals. Preferred relational style of health care provider was measured through a scale adapted from Ditto, Moore, Hilton, & Kalish's (1995) Beliefs About Physicians scale (BAPS). The BAPS is a 12-item self-report measure designed to assess egalitarian versus authoritarian beliefs about the relational style of physicians. As stated previously, an authoritarian style of interaction characterizes the physician who takes the role of expert in interactions and assumes the role of primary decision maker. The patient trusts the physician and looks to him or her for concrete answers and adopts a more passive role. The egalitarian style characterizes the physician who assumes a less dominant role, and is open to discussing treatment options with the patient. In the egalitarian model, the patient adopts a more active role in treatment.

The word "doctor" was changed to "healthcare professional" for the purposes of this study in the adapted scale. Because birth attendants are a subgroup of healthcare professionals, expectations of birth attendants should be captured in a measure of expectations of healthcare professionals. Two additional items about preferred relational style were added. In light of these changes and because the scale was originally designed

for clients of physicians, a reliability analysis was conducted on the 14 items. The analysis revealed an adequate level of internal consistency that was consistent with previous research (Ditto et al., 1995), however one item was decreasing the alpha level considerably. This item was deleted. The resulting 13-item Beliefs About Healthcare Professionals Scale (BAHPS, Appendix E) demonstrated good internal consistency ($\alpha = .78$), and contained three items to assess beliefs about healthcare professional ability and 10 items to assess preferred relational style. Participants rated each item with a six-point Likert scale with response options ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). After reverse scoring 5 items, a mean BAHPS score was calculated, with higher scores reflecting a stronger belief in an authoritarian relational style, and lower scores reflecting a stronger belief in an egalitarian relational style.

Perceived Relational Style of Birth Attendant. To capture participants' perceptions of their birth attendant's relational style, the BAHPS was again administered (See Appendix F). However items were reworded to relate specifically to participants' most current birth attendant. The original 13 items such as, "Health care professionals should allow patients to participate in treatment decisions," were modified to measure the woman's experience of her current birth attendant: "My midwife/obstetrician allows me to participate in treatment decisions." The 13-item scale demonstrated good internal consistency ($\alpha = .78$).

Patient Satisfaction. Two existing scales were combined and then adapted to measure women's satisfaction with their birth attendant: the Patient Satisfaction Questionnaire (PSQ, Marshall & Hays, 1993) and the Doctor Satisfaction Questionnaire (DSQ, Sirois & Gick, 2002). The PSQ is a well-validated measure of both the unidimensional and multidimensional aspects of the patient satisfaction construct

(Marshall, Hays, Sherbourne, & Wells, 1993; Burke, Cook, Cohen, Wilson, Anastos, Young, et al., 2003). Its factors reflect general patient satisfaction (“the medical care I have been receiving is just about perfect”), as well as different sub components of patient satisfaction. The short form of the PSQ contains 18 items (PSQ-18, Marshall & Hays, 1994). The shorter version is based on the same sub scales as the PSQ-III, and shows acceptable internal consistency reliability, in addition the shorter PSQ-18 subscales correlate considerably with those of the PSQ-III (The RAND Corporation, consulted 2005). Respondents rated each item on a 5-point Likert scale from “strongly agree” to “strongly disagree.”

The DSQ is a 7-item measure of doctor satisfaction that measures perceived competence and perceived scope of practice of doctors, and was developed by Sirois and Gick (2002). It has shown good internal consistency ($\alpha = .90$) in a community sample of 199 healthcare consumers taken from both orthodox medicine clinics and alternative medicine clinics (Sirois & Gick, 2002). Five of the 7 items from the original DSQ were used in this study. These items reflected general satisfaction with doctors (“Overall, I am satisfied by the medical care that I receive from my doctor,” “I am dissatisfied with some things about the medical care I receive”), in addition to components of satisfaction with doctors such as effectiveness of treatment (“I feel that the treatment I receive from my doctor is effective”) and quality of patient-doctor relationship (“My doctor listens to what I have to say,” “My doctor explains what I can expect regarding treatment”). Respondents rate each item on a 4-point Likert scale from “almost always” to “almost never.”

The adapted 21-item patient satisfaction scale (Appendix G), entitled the Doctor-Patient Satisfaction Questionnaire (DPSQ), contained 16 reworded items of the original PSQ and five reworded items of the original DSQ. The two items reflecting the financial

aspects of satisfaction in the PSQ were discarded as they were inapplicable in the Canadian healthcare system. The rating scale from the PSQ-18 was used. Respondents rated each item on a 5-point Likert scale from “strongly agree” to “strongly disagree.” For the purposes of this study, the word “doctor” in the original items was replaced by “birth attendant”, and “medical care” was replaced by “maternity care.”

The four dimensions of the Doctor Patient Satisfaction Questionnaire demonstrated good internal consistency: 4-item general satisfaction subscale ($\alpha = .83$), the 5-item technical quality with which the birth attendant executed care subscale ($\alpha = .85$), the interpersonal and communicative aspect of the birth attendant relationship ($\alpha = .94$), and an 8-item subscale derived from collapsing the ‘interpersonal manner,’ ‘communication,’ and ‘time spent with doctor’ subscales of the PSQ-18 ($\alpha = .94$), and the 4-item accessibility and convenience of services subscale ($\alpha = .82$). The total satisfaction subscale, calculated from all the DPSQ items, also demonstrated good internal consistency ($\alpha = .95$).

Additionally, a 10-point Likert item stating, “How satisfied are you overall with your birth attendant” with 1 being ‘very dissatisfied’ and 10 being ‘very satisfied’ provided an additional direct measure of satisfaction with birth attendant.

Data Analysis

There were three components to the data analysis. First the match between preferred and perceived style for each participant was assessed. A matching variable was created to reflect whether participants’ scores for preferred relational style of birth attendant (as measured by the BAHPS) matched their scores for the actual relational style of birth attendant (as measured by the BAHPS birth attendant). Five one-way ANOVA was performed with the matching variable as the IV. The DVs were the five different

components of satisfaction measured by the DPSQ. These were 1) satisfaction with the communication and relational aspects of the birth attendant relationship, 2) satisfaction with the technical quality of the services provided by the birth attendant, 3) satisfaction with the accessibility and convenience of services provided, 4) general satisfaction, and 5) total satisfaction. The first four aspects of satisfaction were sub-components of all DPSQ items, while total satisfaction reflected the average score on all DPSQ items.

Second an attempt was made to determine what factors contributed to preferred relational style of healthcare professional. A multiple regression analysis with health self-efficacy, openness to new experience, natural birth philosophy, and medical birth philosophy as predictors was performed. Since this study was exploratory, variables were entered in no particular order.

Third a logistic regression was performed to determine if health self-efficacy, openness to new experience, natural birth philosophy, medical birth philosophy, and preferred relational style of healthcare professional predicted birth attendant choice. Education was controlled for in the analysis because it is known to predict alternative health care use (Astin, 1998), and was therefore thought to predict midwifery use.

Finally a supplementary regression analysis was performed to determine if openness to new experience, health self-efficacy, medical birth philosophy, natural birth philosophy, preferred relational style, and type of birth attendant predicted total satisfaction.

Chapter 3

Results

Demographic Characteristics

The sample contained data from a total of 112 pregnant women with a mean age of 30, ranging from 19 to 40 years ($SD = 4.5$). Tables 2 and 3 display sample demographics. Participants were an average of 27 weeks into their pregnancies, and had had an average of 5.6 consults with their birth attendants. The majority of participants reported that midwives were available in their area (91%). Thirty-three percent of the participants had an obstetrician birth attendant, and 67% had a midwife birth attendant. Approximately 30% of women in the obstetrician group considered having a midwife, while 64.9% did not consider having a midwife. Fifty-four percent of women with obstetrician birth attendants reported that midwives were available in their area, while 2.7% reported midwives were not. Of women with an obstetrician birth attendant, 24.3% reported they did not know if midwives were available in their area.

ANOVAs: Investigating the Match Between Preferred and Actual Relational Style

Five one-way ANOVAs were performed to investigate whether the five measured dimensions of satisfaction with birth attendant varied as a function of the match between preferred relational style of healthcare professional (as measured by the BAHPS) and actual relational style of birth attendant (as measured by the BAHPS birth attendant). A median split was performed on both BAHPS scores and BAHPS birth attendant scores. Scores below the median were categorized as an egalitarian preference and given a value of 1, and scores above the median were categorized as an authoritarian preference and given a value of 2. The matching variable was coded according to the way participants' scores on the two scales corresponded. For example, a 1 and a 1 on preferred and actual

relational style respectively would be a match, and a 1 and a 2 on preferred and actual relational style respectively would be a mismatch. A score of 1 on the matching variable constituted a match, and a score of 2 constituted a mismatch.

No significant differences were found between the group that matched on preferred and actual relational style of birth attendant and the group that did not match on preferred and actual relational style of birth attendant for any of the dimensions of satisfaction. The ANOVAs were rerun with those mismatches with authoritarian preferences recoded as matches. This was done in accordance with Ditto et al.'s (1995) previous research that suggested patients with authoritarian preferred style were likely to accept either an egalitarian or authoritarian physician. In these analyses no significant group differences were found between the group that matched on preferred and actual relational style and the group that did not match on preferred and actual relational style. For a summary of the ANOVAs, see Table 4.

Intercorrelations Among Predictor and Criterion Variables

Correlations among predictor and criterion variables were examined prior to conducting regression analyses (see Table 5). The more a participant endorsed a preference for an authoritarian relational style in healthcare professionals, the more they subscribed to a medical birth philosophy. The more a participant endorsed a preference for an egalitarian relational style in healthcare providers, the more they subscribed to a natural birth philosophy. Also, the more a participant endorsed a preference for an authoritarian relational style in healthcare professionals, the less open they were to new experiences and the less competent and confident they felt they were to handle their health. The higher a participant scored on the Neuroticism scale, the less competent and confident they reported being related to their health. Additionally, the more a participant

ascribed to a medical birth philosophy, the less open they were to new experiences and the less competent and confident they felt they were about managing their health. The higher a participant scored on the natural birth philosophy scale, the more open they were to new experiences and the more confident and competent they felt in managing their own health. The higher a participant scored on the medical birth philosophy scale the less they subscribed to a natural birth philosophy.

Multiple Regression: Predicting Preferred Style

A standard multiple regression was conducted to determine how well several individual difference variables predicted preferred relational style of healthcare professional. The predictors were openness to new experience, health related self-efficacy, natural birth philosophy and medical birth philosophy. The criterion variable was preferred relational style. The linear combination of the predictors was significantly related to preferred relational style, $R = .72$, $F(5, 98) = 27.63$, $p < .001$, meaning approximately 51% of the variance of preferred relational style in the sample can be accounted for by the linear combination of predictor variables.

Medical birth philosophy was a significant predictor of preferred style over and above the other predictor variables (See Table 6). According to the beta weight for medical birth philosophy, the more medical a participant's birth philosophy was, the more authoritarian their preferred style of healthcare professional was. Also openness was a significant predictor of preferred style independent of the other predictor variables. According to the beta weight, the more open a participant was to new experience, the more egalitarian their preferred style of healthcare professional was.

Given the magnitude of the unique variance predicted by medical birth philosophy and that the other predictor variables were not significant, the potential for

multicollinearity was assessed to ensure that the strength of medical birth philosophy association was not due to the intercorrelations among the other predictor variables being excessively high. The correlation matrix (no $r > .8$ between predictors), VIF (cutoff < 10 and close to 1), and Tolerance (cutoff > 0.1) were examined. This revealed no multicollinearity among predictor variables.

Logistic Regression: Predicting Midwife or Obstetrician Birth Attendant Group

Membership

As a preliminary measure, independent samples *t*-tests were performed to see if mean differences existed between the midwife and obstetrician groups on each of the predictor variables (See Table 7). Openness to new experience scores were significantly higher in the midwife group than in the obstetrician group. Medical birth philosophy scores were significantly higher in the obstetrician group than in the midwife group. Natural birth philosophy scores were significantly higher in the midwife group than in the obstetrician group. Finally, preferred relational style scores were significantly higher in the obstetrician group than in the midwife group, meaning participants in the obstetrician group reported a more authoritarian preferred relational style than the midwife group. Only variables with significant mean differences were included in the logistic regression analysis.

A binary logistic regression was performed on type of birth attendant as outcome and four individual difference predictor variables: openness to new experience, medical birth philosophy, natural birth philosophy, and preferred relational style of healthcare professional. Education was entered in a separate block than the other predictor variables as a control measure. Data from 112 women were available for analysis: 75 women with midwife birth attendants and 37 women with obstetrician birth attendants.

In the logistic regression, natural birth philosophy was significantly ($p < .01$) related to type of birth attendant. For natural birth philosophy the odds ratio was 5.39, meaning the odds of being in the midwife group increased by 439% with each 1-unit increase in this variable. No other variables significantly predicted birth attendant group membership. For all logistic regression statistics, see Table 8.

Supplementary Analysis: Predicting Total Satisfaction with Birth Attendant in Regression

Since the matching variable did not have an effect on any aspect of satisfaction with birth attendant, a standard multiple regression was performed to determine whether any of the other variables of interest in the current study predicted overall satisfaction with birth attendant, as measured by the 'total satisfaction' index of the DPSQ.

Before running the regression analysis correlations between total satisfaction and the variables of interest were examined (See Table 9). The more authoritarian a participant's preferred style, the less satisfied they were with their birth attendant overall. Also, the more open a participant was to new experience, the more satisfied they were with their birth attendant. Similarly, the more confident a participant was in their ability to competently manage their health, the more satisfied they were with their birth attendant. Furthermore, the more a participant ascribed to a medical philosophy of birth the less satisfied they were with their birth attendant overall. Finally, the more a participant ascribed to a natural birth philosophy the more satisfied they were with their birth attendant overall.

The predictors in the regression were openness to new experience, health related self-efficacy, natural birth philosophy, medical birth philosophy, preferred style, and type of birth attendant. The criterion variable was total satisfaction with birth attendant. The linear combination of the predictors was significantly related to total satisfaction, $R = .55$,

$F(6, 111) = 7.46, p < .000$, meaning that approximately 30% of the variance of satisfaction in the sample can be accounted for by the linear combination of predictor variables.

Health self-efficacy was a unique predictor of satisfaction (See Table 10). According to the beta weight for health self-efficacy, the more competent and confident a participant was in their ability to manage their health, the more satisfied that woman was with her birth attendant. Natural birth philosophy also significantly predicted satisfaction scores over and above the other predictors. According to the beta weight, the more natural a woman's birth philosophy was, the higher her satisfaction was with her birth attendant. Birth attendant was also a unique predictor of satisfaction. According to the beta weights for this dichotomous variable, the obstetrician group (coded as 1) is on average less satisfied with their birth attendants than the midwife group (coded as 0), holding all other variables constant.

A second multiple regression was run to investigate whether type of birth attendant moderated the relationships between birth attendant and mastery and birth attendant and natural birth philosophy (Table 10, Model 2). It seemed viable that natural birth philosophy was an important predictor of satisfaction in the midwife group since natural birth philosophy differentiated the midwife from the obstetrician group in the logistic regression.

Before creating the interaction terms, the health self-efficacy and natural birth philosophy variables were centred. Centring variables before creating interaction terms ensures against multicollinearity problems between variables and their interaction terms in the regression (Aguinis, 2004; Aiken & West, 1991). This was accomplished by subtracting the mean from each score for the two variables. The two interaction terms

were created from the product of type of birth attendant and health self-efficacy centred and the product of type of birth attendant and natural birth philosophy centred.

The predictors in the regression were openness to new experience, health related self-efficacy, natural birth philosophy, medical birth philosophy, preferred style, type of birth attendant, the type of birth attendant*health self-efficacy interaction, and the type of birth attendant*natural birth philosophy interaction. The criterion variable was total satisfaction with birth attendant. The linear combination of the predictors was significantly related to total satisfaction, $R = .61$, $F(8, 111) = 7.48$, $p < .000$, meaning that approximately 37% of the variance of preferred relational style in the sample can be accounted for by the linear combination of predictor variables.

The birth attendant*health self-efficacy interaction was significant, suggesting that type of birth attendant moderates the relationship between health related self-efficacy and total satisfaction. The main effect of health self-efficacy was not significant, therefore health self-efficacy does not predict total satisfaction for the midwife group (when birth attendant = 0). To determine whether health self-efficacy predicts satisfaction for the obstetrician group, the regression was rerun with type of birth attendant recoded (with obstetrician coded as 0 and midwife coded as 1) and the main effect for health self-efficacy was examined (See Table 10, Model 3). The main effect of health self-efficacy was significant and the regression weight was positive, therefore health self-efficacy predicted total satisfaction for the obstetrician group such that the greater a woman's sense of confidence in her ability to manage her health, the more satisfied she was with her obstetrician.

The birth attendant*natural birth philosophy interaction was also significant, suggesting that type of birth attendant also moderates the relationship between natural

birth philosophy and total satisfaction (Table 10, Model 2). The main effect of natural birth philosophy was significant and the regression weight was positive, therefore natural birth philosophy predicts satisfaction with birth attendant for the midwife group (when birth attendant = 0) such that the higher a woman scores on the natural birth philosophy scale, the higher her overall satisfaction score. To determine whether natural birth philosophy predicted satisfaction for the obstetrician group, the main effect of natural birth philosophy in the regression in which birth attendant was recoded was examined (Table 10, Model 3). The main effect of natural birth philosophy was not significant, therefore natural birth philosophy did not predict satisfaction with birth attendant in the obstetrician group.

Chapter 4

Discussion

There were several purposes of this study. One was to investigate the role of the birth attendant relationship, in particular the role of preferred relational style of birth attendant, in satisfaction with birth attendant. Another purpose was to investigate the role of several key individual difference and personality factors in choice of birth attendant. Finally, this study sought to investigate the role of those same factors in preferred relational style of birth attendant.

Findings of the Present Study

The main hypothesis of the current study, that preferred relational style would predict satisfaction with birth attendant, was not supported. Whether or not a participant 'matched' on their preferred style of healthcare professional and their actual relational style of birth attendant did not affect level of satisfaction with birth attendant. However, preferred style may still have an impact on satisfaction. There are several plausible

reasons why no effect was found. The most likely explanation is that the sample size, in particular for the obstetrician group, was not large or representative enough to detect an effect. Also the size of the 'mismatching' group in the ANOVAs was much smaller than the size of the 'matching' group (18 mismatches versus 94 matches). It is possible that the effect of the matching variable would be detected if the sample were larger, or if it contained more mismatching participants. Another reason that the effect of preferred style was not found could have been the median-split method used to code the matching variable. A median split was a less preferable method for creating egalitarian (at or below the median) and authoritarian (above the median) groups from the preferred style variable. More disparity between the two groups, and therefore a greater likelihood of detecting an effect of the matching variable, could have been achieved if the top and bottom thirds of the scores had been used instead. However, limited sample size prevented this.

Despite this null finding, this exploratory study yielded several other interesting results. First, openness to new experience and medical birth philosophy were strong predictors of preferred relational style. Second, women in the midwife group were discriminated from women in the obstetrician group by their level of natural birth philosophy. Third, natural birth philosophy was a strong predictor of satisfaction for the midwife group. Fourth, health self-efficacy was a strong predictor of satisfaction for the obstetrician group. Finally, levels of satisfaction were significantly higher for the midwife group versus the obstetrician group. Each of these results will be discussed and related to the literature where possible considering the limited research in this area. Then strengths and limitations of the current study will be offered, and finally directions for future study will be suggested.

Several hypotheses were made regarding factors that would predict preferred relational style of birth attendant.¹ Egalitarian preference was expected to be predicted by high health self-efficacy, high natural birth philosophy, and high openness to new experience. Authoritarian preference was expected to be predicted by low health self-efficacy, high medical birth philosophy, and low openness (closedness) to new experience.

As anticipated, the results indicated that openness to new experience was a strong predictor of preferred relational style of healthcare professionals. High openness to new experience related to an egalitarian preferred style, and low openness to new experience related to an authoritarian preferred style. People high on the openness personality dimension are characterized as “creative, witty, original, and open to new experiences” (Costa & McCrea, 1999). It seems logical that women scoring high on this trait would want an egalitarian birth attendant. Women who see themselves as creative and original may appreciate an egalitarian birth attendant’s attention to their individuality when providing maternity care since the egalitarian birth attendant is open to discussing treatment options with the patient and allows the woman a more active role in treatment. It also seems logical that women scoring low on this trait would want an authoritarian birth attendant because women who see themselves as closed to new experiences may be more conventional, and therefore more invested in the idea of the birth attendant as the expert.

The results of the present study also indicated that medical birth philosophy was a strong predictor of preferred relational style. A high score on the medical birth philosophy

¹ Preferred relational style of birth attendant was assumedly captured by the measure of preferred relational style of healthcare professional, birth attendants being a sub group of healthcare professionals.

dimension was related to an authoritarian preferred relational style, and a low score on the medical birth philosophy dimension was related to an egalitarian relational style as hypothesized. Women with a strong medical birth philosophy see birth as a potentially risky event, tend to entrust others to make decisions regarding care, and are comfortable with the idea of medical interventions and technological assistance. Women scoring low on this measure are the opposite; they do not see birth as potentially risky, they tend not to entrust others to make decisions regarding their care, and are less comfortable with the idea of medical interventions and technological assistance. A medical birth philosophy may be related to an authoritarian preference because by definition the authoritarian style keeps the healthcare professional in the expert role, and if women see birth as a potentially risky event they likely also see it as a procedure requiring expertise to ensure a positive outcome. Low medical birth philosophy may be related to an egalitarian preference because an egalitarian relationship would allow women to take part in the decision making process.

In reference to birth attendant choice, several hypotheses were made. Several individual characteristics were thought to differentiate women with midwife birth attendants from women with obstetrician birth attendants. Midwife group membership was expected to be predicted by high openness to new experience, a natural birth philosophy, high health self-efficacy, and an egalitarian preference. Obstetrician group membership was expected to be predicted by low openness to new experience, a medical birth philosophy, low health self-efficacy, and an authoritarian preference. As expected, the results suggest natural birth philosophy was a strong predictor of birth attendant group membership, and may be a strong predictor of birth attendant choice. Women with a more natural birth philosophy were more likely to choose a midwife birth attendant, whereas

women with a less natural birth philosophy were more likely to choose an obstetrician. The natural birth philosophy was characterized by a desire for active involvement in childbirth decisions, a preference for minimal interventions, and the desire for a quality birth experience.

A definition of childbirth as ‘natural’ has been linked to selecting a midwife birth attendant in previous research. Howell-White (1997) measured the degree to which women perceived birth to be a risky procedure in a Likert item, reasoning that those who believed childbirth to be a natural process would perceive birth as less risky. Perceiving birth as less risky, and therefore holding a natural birth definition or natural birth philosophy, significantly predicted choosing a midwife. This was the only other study that examined birth philosophy in connection with birth attendant choice. The current study was also the first to attempt to quantify birth philosophy in a self-report measure. The Birth Philosophy Scale (BPS) shows promise as a tool for future research since birth philosophy, in particular natural birth philosophy, was an important determinant of birth attendant choice and satisfaction in the midwife group. Also, the BPS demonstrated good reliability in the current sample.

The results of the current study also suggest natural birth philosophy was an important predictor of satisfaction for the midwife group. The more natural a woman’s birth philosophy was, the more satisfied she was with her midwife, and the less natural a woman’s birth philosophy was, the less satisfied she was with her midwife. This may be because midwives generally have a natural birth philosophy, and so women whose birth philosophies corresponded with their midwives would be most satisfied since their care will reflect their personal beliefs about birth. Further, women whose birth philosophies did not correspond with their midwives would logically be less satisfied. The implication

here is that the 'fit' between the birth philosophies of women and their midwives is an important determinant of satisfaction. Midwives could use this knowledge when screening potential clients. They could ensure that they initially inform women overtly of the birth philosophy they maintain so women can make an informed decision when selecting a birth attendant. Even simple gestures such as making a pamphlet available outlining the birth philosophy at a midwifery clinic would aid women in their decision-making.

As mentioned above, the natural birth philosophy measure assesses the degree to which participants believed in minimal interventions, and active involvement in the birth process. The practices of midwifery outlined earlier suggest an underlying natural birth philosophy. Midwifery has been associated with minimal interventions in comparison to obstetrics (Oakley et al., 1997; Rosenblatt et al., 1997), and similarly midwives reportedly hold less interventionist beliefs compared to physicians (Reime, Klien, Kelly, Duxbury, Saxell, Liston, Prompers, Enjes, & Wong, 2004). Midwifery is also 'woman-centred' care, meaning a woman's individuality and uniqueness are considered in her care and she is encouraged to be an active participant in her maternity care.

The results regarding natural birth philosophy in this study suggest it is an important factor in the decision to use a midwife and in level of satisfaction with a midwife. Considering the parallels between complementary and alternative medicine (CAM) and midwifery, examination of the literature in this area may be of value in understanding the connection between natural birth philosophy and midwifery. Several researchers (O'Callaghan & Jordan, 2003; Siahpush, 1998) have found a post-modern philosophy to be predictive of CAM use. These researchers measured post-modern philosophy according to six values: natural remedies, anti-science sentiments, holism,

rejection of authority, individual responsibility, and consumerist attitudes toward healthcare. O'Callaghan and Jordan (2003) suggest that the recent increase in CAM use may be connected to the emergence of a postmodern philosophy of health. The natural birth philosophy measure, which was created for this study, shares elements of the post-modern philosophy of health. The preference for minimal use of technology and minimal medical interventions may represent an underlying belief in natural remedies and/or an anti-science sentiment. A desire for an active role in childbirth is similar to the belief in individual responsibility and/or rejection of authority. The importance of natural birth philosophy as a variable in the outcomes of this study may be an indicator of the broader post-modern philosophy of health that has recently gained momentum, which may explain the recent demand for midwifery services.

Although health self-efficacy, which is a type of control belief, did not predict type of birth attendant in the current study, control beliefs have been recognized as a characteristic that can distinguish birth attendant choice in the literature. However, this finding has been inconsistent. Callister (1995) measured women's beliefs and perceptions of childbearing as related to midwife or obstetrician choice. One variable measured was Childbirth Locus of Control, which captured beliefs such as information seeking and self-care practice, responses to medical authority figures, and belief in one's ability to safely deliver a child. Callister found that women with obstetricians scored significantly higher on childbirth locus of control, which she interpreted as an indication of a greater reliance on others to bring about positive outcomes. Howell-White (1997), however, obtained different results regarding desired level of control over childbirth. She measured the degree to which women wanted control over the delivery process on a Likert item. Results suggested that women who chose an obstetrician desired more control over

childbirth than women who chose a midwife. The reason for the discrepancy between Callister and Howell-White's findings may be that each study measured a different aspect of control beliefs; childbirth locus of control measures how much a woman believes she is in control of the birth, whereas desired level of control over birth measures how much control a woman wants over her birth. The two constructs are similar but not identical.

Similarly, health self-efficacy is a construct that falls under the umbrella of control beliefs, but it is not as specific to childbirth as either the childbirth locus of control or desired level of control over birth. The reason health self-efficacy did not predict birth attendant choice in the current study may be that the construct was not specific enough. Alternatively, health self-efficacy may predict birth attendant choice, just not in our sample. Our sample of women choosing obstetricians was relatively small, and it may have therefore been unrepresentative. If there is a relationship between control beliefs as operationalized as 'desire for control over birth' and birth attendant choice such that women desiring more control over birth are more likely to choose an obstetrician as Howell-White (1997) found, it is possible that women choosing obstetricians would have higher health self-efficacy than women choosing midwives. Conceivably women who are confident in their ability to make health-related decisions would want more control over their births, and so these two constructs should correlate.

The results of the current study suggest that health self-efficacy was a unique predictor of satisfaction for women in the obstetrician group, such that the more a participant felt confident in her ability to manage her health and make health related decisions, the more satisfied she was with her birth attendant. Perhaps the connection between health self-efficacy and satisfaction in this group is that the women who were confident enough in their ability to make health related decisions were more assertive in

their interactions with their obstetricians, and therefore had their wishes carried out with respect to their prenatal care more often than women who were less confident in their ability to manage their health. Women with lower health related self-efficacy may have had more difficulty identifying and then voicing their wishes with their obstetricians. Health self-efficacy may not be an important predictor of satisfaction for women with midwives because of the more client-centred approach midwives have. Midwives may be more focussed on giving women a more active role in care related decision-making, and therefore women's individual needs may be elicited more easily in the process of maternity care irrespective of whether a woman has high health self-efficacy or not.

There is another possible explanation for the role of health self-efficacy in satisfaction for the obstetrician group. In comparison to midwifery, obstetrical maternity may give women more control and predictability over the birth process. Obstetrics is the standard and conventional means of maternity care, whereas midwifery presents a less conventional option. Most women are indoctrinated in the medical model and can therefore predict to some degree what maternity care within that model will be like. Midwifery, contrastingly, may be more of an unknown territory that does not offer a similar frame of reference. By virtue of choosing an obstetrician birth attendant, women high in health self-efficacy (women who believe they have greater control over their health) may be maintaining control over their health and therefore be more satisfied. Health self-efficacy may not be as important for satisfaction with midwives because women choosing midwives may not need to maintain control over their health in the same sense, since they are choosing an alternative type of maternity care that requires openness to the unpredictable and the unknown. It should be noted that women with obstetricians did not have higher levels of health self-efficacy overall compared to women with

midwives, and so something characteristic of obstetrical care, possibly its relative familiarity and predictability, makes it more satisfactory for women with higher health self-efficacy.

There is some support for health self-efficacy relating to one's satisfaction with their obstetrician in the literature. The broader construct of self-efficacy has been studied in connection with patient satisfaction with their physician in previous research. For example, Godin, Côté, Naccache, Lambert, & Trottier (2005) found that a strong sense of self-efficacy was associated with a high level of patient satisfaction with their physician in a sample of 376 HIV patients. Similarly, Maly, Frank, Marshall, DiMatteo, & Reuben (1998) found that self-efficacy was positively correlated with physician satisfaction in a sample of older patients. Finally, Zandbelt, Smets, Oort, Godfried, Hanneke, & de Haes (2004) found that patient satisfaction was related to previsit self-efficacy in communicating with the physician. The finding in the current study that health related self-efficacy predicted satisfaction with obstetrician might be evidence of a general relationship that encompasses other patient populations.

The results of the present study also suggest that women with midwife birth attendants were more satisfied than women with obstetrician birth attendants. This finding is consistent with previous research. Oakley et al. (1996) found that levels of satisfaction were significantly higher for women with midwives than for women with obstetricians, although both groups scored on average in the satisfied range. Similarly, Spurgeon, Hicks, & Barwell (2001) found that women with midwifery care during the antenatal, labour, and postnatal periods were more satisfied than women with obstetric care during those periods. Finally, Harvey, Rach, Stainton, Jarrell, & Brant (2002) found in a sample

of 101 Canadian women that those with midwives were more satisfied than those with obstetricians.

Strengths and Limitations

This study was innovative in that it explored the role of individual difference factors such as personality and birth philosophy not only in connection with birth attendant choice, but also in relation to satisfaction with birth attendant. It was also one of the first studies to identify the importance of birth philosophy in selection of a birth attendant, in particular in the selection of a midwife, and it was also the first known study to identify the importance of natural birth philosophy for satisfaction with midwife birth attendants. Another unique contribution of this study was that it entailed creating and testing a measure of birth philosophy, which needs to be further validated.

One limitation of the current study is that the data collection was limited to the pregnancy period, and I was therefore unable to track changes in levels of satisfaction over the course of maternity care through labour and delivery. Satisfaction with maternity care most likely depends a great deal on the experience of birth in addition to care received prenatally. Other variables included in the study, such as birth philosophy, may be subject to change as well depending on the birth experience. The results of the current study would be more meaningful if they could be juxtaposed with measurements of the variables of interest taken after childbirth, so that the stability of satisfaction with maternity care and birth philosophy across the different phases of maternity care could be evaluated.

Other limitations concern the use of survey methodology. Survey methodology through the Internet is seen as generally valid and promising for research in psychology (Gosling, Vasire, Srivastava, & John, 2004). Further, as Krantz & Dalal (2000) have

found, Internet sampling typically produces larger and more heterogeneous samples that may be more representative than samples obtained through regular community sampling methods. However, self-selection bias is inherent in the use of any kind of survey methodology. In this case, motivation to talk about maternity care experiences may have confounded the results; women who were motivated enough to complete the survey may have been characteristically different than the entire population of pregnant women on the variables of interest in the study. Perhaps highly satisfied women completed the survey more often than dissatisfied women. Those with a mismatch between preferred and actual relational style may have been less likely to complete the survey. Also, I had no control over whether or not a clinic decided to post flyers. There may have been differences between the clinics that decided to advertise versus those that decided not to advertise the study.

Future Research Directions

A longitudinal study would attempt to answer whether the results of the current study carry over when women's experiences of labour and childbirth are studied in addition to their experiences of pregnancy. Fleming, Ruble, Anderson, & Gordon (1988) found that a woman's sense of control over her birth significantly predicted satisfaction. Sense of control over birth could be studied in relation to health self-efficacy to see if there is a relationship between inherent control beliefs and subjective sense of control over the birth situation.

Additionally, it would be interesting to analyse women who had previously given birth versus women who were giving birth for the first time to see how their firsthand experience of birth affects their birth philosophy, health self-efficacy (control beliefs),

and level of satisfaction. Such study would be instrumental in gaining a clearer picture of how beliefs, preferences, and expectations for maternity care experiences evolve.

Finally, future research should re-evaluate the role of the match between preferred and actual relational style in satisfaction with maternity care in a larger sample. Moreover, perhaps further investigation into the birth attendant relationship is warranted. Other relational variables could be measured that may differentiate women with obstetricians from women with midwives. Women choosing midwives may be more invested in having a relationship based on comfort, whereas women choosing obstetricians may be more interested in having a relationship in which they trust the expertise of their birth attendant.

Conclusions

Although characteristics that may motivate women to select either a midwife or an obstetrician birth attendant have been examined in previous research (Callister, 1995; Howell-White, 1997), and satisfaction with maternity care for women with midwife and obstetrician birth attendants has been researched (Oakley et al., 1996), no known studies have investigated how individual characteristics, such as birth philosophy, relate to satisfaction with birth attendant. The current study was innovative in that it investigated the role of several individual difference factors in satisfaction with birth attendant. The new natural birth philosophy measure shows promise as a tool that can screen potential midwifery clients for philosophical 'fit' with their midwives. The findings elucidate the need for further research into the role of natural birth philosophy in satisfaction with midwifery care, and in choice of birth attendant. As well they identify the importance of health self-efficacy in women's satisfaction with their obstetricians. However, this finding should be replicated before drawing conclusions, as the sample of women with

obstetrician birth attendants was relatively small in this study. The findings also highlight the need for future research into the role of preferred relational style in satisfaction with birth attendant, as no conclusive statements can be made from the results of this study.

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Appendix A: Survey Demographics.

Birth Experience Questionnaire

We are conducting a study on factors that influence a woman's birth experience. We are collecting data from women about their experiences of pregnancy and childbirth. Please consider participating if you have chosen either a midwife or an obstetrician to attend your birth (deliver your baby) and have had at least two appointments with her or him already. You may also participate if you have given birth within the past four months with a midwife or obstetrician as your birth attendant. Also, you must have given birth in British Columbia, Manitoba, Ontario, or Quebec to participate.

General Information

Age: Sex: Female Male

What is your highest level of education?

some high school some college or university some graduate school
 high school graduate college/university graduate graduate degree

I live in

British Columbia Manitoba
 Ontario Quebec

I am giving birth in

British Columbia Manitoba
 Ontario Quebec

Are you currently employed:

full-time part-time not at all retired disabled

What ethnic background do you most identify with? (For example: Caucasian, French Canadian, Italian, East Indian, etc.)

What is your relationship status? (please check the one that applies best to you)

<input type="checkbox"/>	Married/Living with an intimate other	<input type="checkbox"/>	Never married
<input type="checkbox"/>	Separated/Divorced	<input type="checkbox"/>	Widowed

Financially, would you say that you are:

<input type="checkbox"/>	comfortable, don't worry too much about money
<input type="checkbox"/>	making ends meet, getting by
<input type="checkbox"/>	struggling a lot, have some immediate financial concerns

Have you been diagnosed with any psychiatric or mental health conditions? NO [] YES
 []
 (e.g., clinical depression, anxiety, panic attacks, etc.)

If yes, please list all

I am pregnant and have had _____ visits with my midwife or obstetrician

Approximately what week is this in your pregnancy? _____

Is your pregnancy high risk? YES NO

Is your primary birth attendant a: midwife obstetrician other

Do you have shared care between a midwife and obstetrician? YES NO

Are midwives available to you in your area? YES NO

Did you consider having a midwife birth attendant? YES NO

Why did you choose a midwife?/Why did you choose an obstetrician?

This will be my _____ time giving birth.

(If not first) I have given birth _____ times already.

Appendix B: Control Beliefs Inventory (CBI)

The following statements concern the different ideas that people have about their health. Some of these statements refer to your general state of health and others refer to specific times when you are experiencing illness symptoms.

Please read each statement carefully and answer according to how much you agree with each statement by circling a number from 1 to 6. Please answer according to the following scale:

1 STRONGLY DISAGREE	2 DISAGREE	3 MILDLY DISAGREE	4 MILDLY AGREE	5 AGREE	6 STRONGLY AGREE
1. I know that I can do what is necessary to improve my health.	1	2	3	4	5 6
2. It is my own actions that determine how healthy I am.	1	2	3	4	5 6
3. If I am lucky I will stay healthy.	1	2	3	4	5 6
4. If I set my mind to it I can improve my health.	1	2	3	4	5 6
5. I am confident that I can successfully look after my health.	1	2	3	4	5 6
6. My health depends on forces beyond my control.	1	2	3	4	5 6
7. I can take control of my health by managing my day-to-day symptoms.	1	2	3	4	5 6
8. Even though there are things I can do to improve my health, I don't feel that I can do them.	1	2	3	4	5 6
9. If I make the effort, I can manage my illness.	1	2	3	4	5 6
10. How soon I recover from an illness depends on how lucky I am.	1	2	3	4	5 6
11. There are things that I can do to make my health problem easier to deal with.	1	2	3	4	5 6
12. I am able to meet the challenge of following a healthy routine.	1	2	3	4	5 6
13. My health depends on how I take care of myself.	1	2	3	4	5 6
14. I believe that I can do more to control my symptoms.	1	2	3	4	5 6
15. People who take care of themselves stay healthy.	1	2	3	4	5 6
16. When facing a health problem, I often feel overwhelmed about what to do.	1	2	3	4	5 6
17. How soon I recover from an illness depends on how I look after myself.	1	2	3	4	5 6
18. If I am fortunate my health will improve.	1	2	3	4	5 6
19. I am confident that I could deal with any unexpected health problems.	1	2	3	4	5 6
20. My current state of health is a reflection of how I look after myself.	1	2	3	4	5 6
21. If I do the right things I can make my symptoms more manageable.	1	2	3	4	5 6

22. Regardless of circumstances, there are things I can do to improve my health.	1	2	3	4	5	6
23. I am confident in my ability to make the right decisions about my health.	1	2	3	4	5	6
24. My health is determined by circumstances beyond my control.	1	2	3	4	5	6
25. I am certain that with effort I can improve my health.	1	2	3	4	5	6
26. When it comes to my health, I often feel unable to do what I know should be done.	1	2	3	4	5	6

Appendix C: Beliefs About Healthcare Professionals Scale (BAHPS)

The following statements concern the different ideas that people have about health-care professionals. The term **“health-care professional”** can refer to general physicians and doctors, as well as birth attendants such as obstetricians or midwives. These statements are about your beliefs about health care professionals **in general** and are not necessarily true of any one health-care professional you may be currently dealing with. Please read each statement carefully and answer according to how much you agree by circling a number from 1 to 6 next to each statement. Please answer according to the following scale:

1	2	3	4	5	6
STRONGLY DISAGREE	DISAGREE	MILDLY DISAGREE	MILDLY AGREE	AGREE	STRONGLY AGREE

1. The advice given by health-care professionals should be taken with a grain of salt.	1	2	3	4	5	6
2. Health-care professionals have high status.	1	2	3	4	5	6
3. Health-care professionals have a higher IQ than most people.	1	2	3	4	5	6
4. The education and experience health-care professionals have gives them the authority to tell their patients what they should do.	1	2	3	4	5	6
5. A health-care professional's role is to provide patients with options.	1	2	3	4	5	6
6. A health-care professional's role is to provide patients with answers.	1	2	3	4	5	6
7. In general, health-care professionals should provide me with a single clearly defined plan of treatment to follow.	1	2	3	4	5	6
8. People should defer to a health-care professional's experience when deciding whether or not to follow the recommended treatment.	1	2	3	4	5	6
9. In general, patients should be partners with health-care professionals in deciding the appropriate form of treatment.	1	2	3	4	5	6
10. When I go to a health-care professional, she or he should provide me with the options but let me choose the form of treatment I will follow.	1	2	3	4	5	6
11. In general, patients should follow their health-care professional's advice unquestioningly.	1	2	3	4	5	6
12. Health-care professionals should allow patients to participate in treatment decisions.	1	2	3	4	5	6
13. Health-care professionals should be responsible for making treatment decisions.	1	2	3	4	5	6

Appendix D: Birth Philosophy Scale (BPS)

The items below are related to different beliefs people have about the birth experience. Please read each item carefully and rate yourself according to the following scale.

1	2	3	4	5	6
STRONGLY DISAGREE	DISAGREE	MILDLY DISAGREE	MILDLY AGREE	AGREE	STRONGLY AGREE
1. Women should have all the latest technology to assist them in giving birth.					1 2 3 4 5 6
2. It is important that my birth attendant and I have a good relationship.					1 2 3 4 5 6
3. Women depend on medical professionals to ensure they have a safe delivery.					1 2 3 4 5 6
4. Giving experienced professionals control over my birth gives me peace of mind.					1 2 3 4 5 6
5. I believe that modern technology has improved the quality of the birth experience.					1 2 3 4 5 6
6. I will be satisfied with my birth experience as long as the baby is healthy.					1 2 3 4 5 6
7. Giving birth is a normal event.					1 2 3 4 5 6
8. I feel confident that my birth attendant can decide what's best for me.					1 2 3 4 5 6
9. Although I value my birth attendant's opinion, I like to have the final say regarding any childbirth decisions.					1 2 3 4 5 6
10. I am quite afraid of something going wrong when I give birth.					1 2 3 4 5 6
11. Things like fetal monitoring reduce the risk of something going wrong during childbirth.					1 2 3 4 5 6
12. Ideally, I would prefer giving birth at home.					1 2 3 4 5 6
13. Giving birth is a potentially dangerous event.					1 2 3 4 5 6
14. Some routine medical interventions during labour seem unnecessary.					1 2 3 4 5 6
15. My birth attendant's priority should be making sure nothing goes wrong during my delivery.					1 2 3 4 5 6
16. I don't want to worry about making critical decisions while I'm in labour.					1 2 3 4 5 6
17. I want my birth attendant to focus on supporting me through the childbirth process during my delivery.					1 2 3 4 5 6
18. I see a birth attendant more as a guide or coach than as an authority figure.					1 2 3 4 5 6

19. Giving birth naturally, without any medical interventions, would be ideal to me.	1	2	3	4	5	6
20. My body is designed to give birth.	1	2	3	4	5	6
21. The pain of labour is an important part of the birth experience.	1	2	3	4	5	6
22. There is a purpose to enduring the pain of labour.	1	2	3	4	5	6

Appendix E: Beliefs about Healthcare Professionals Scale (Birth Attendant) (BAHPSba)

The following statements concern the different ideas you may have about your birth attendant, whether s/he is an obstetrician or a midwife. Answer these questions as they refer to your current or most recently used birth attendant. Please read each statement carefully and answer according to how much you agree by circling a number from 1 to 6 next to each statement. Please answer according to the following scale:

If you are using both a midwife and an obstetrician please answer these questions as they refer to your midwife only.

1	2	3	4	5	6
STRONGLY DISAGREE	DISAGREE	MILDLY DISAGREE	MILDLY AGREE	AGREE	STRONGLY AGREE

1. The advice given by my obstetrician/midwife is taken with a grain of salt.	1	2	3	4	5	6
2. My obstetrician/midwife has high status.	1	2	3	4	5	6
3. My obstetrician/midwife has a higher IQ than most people.	1	2	3	4	5	6
4. The education and experience my obstetrician/midwife has gives her or him the authority to tell me what I should do.	1	2	3	4	5	6
5. My obstetrician/midwife provides me with options.	1	2	3	4	5	6
6. My obstetrician/midwife provides me with answers.	1	2	3	4	5	6
7. In general, my obstetrician/midwife provides me with a single clearly defined plan of treatment to follow.	1	2	3	4	5	6
8. I defer to my obstetrician's/midwife's experience when deciding whether or not to follow the recommended treatment.	1	2	3	4	5	6
9. In general, I am a partner with my obstetrician/midwife in deciding the appropriate form of treatment.	1	2	3	4	5	6
10. When I go to my obstetrician/midwife, she or he provides me with the options but lets me choose the form of treatment I will follow.	1	2	3	4	5	6
11. In general, I follow my obstetrician's/midwife's advice unquestioningly.	1	2	3	4	5	6
12. My obstetrician/midwife allows me to participate in treatment decisions.	1	2	3	4	5	6
13. My obstetrician/midwife is responsible for making treatment decisions.	1	2	3	4	5	6

Appendix F: Big Five Inventory (BFI)

Instructions: For each of the 44 characteristics listed below, rate how descriptive each characteristic is of you using the scale from 1 to 5 as shown below.

1	2	3	4	5
Disagree strongly	Disagree a little	Neither Agree or disagree	Agree a little	Agree strongly

I see myself as someone who . . .

1. Is talkative	_____	24. Is emotionally stable, not easily upset	_____
2. Tends to find fault with others	_____	25. Is inventive	_____
3. Does a thorough job	_____	26. Has an assertive personality	_____
4. Is depressed, blue	_____	27. Can be cold and aloof	_____
5. Is original, comes up with new ideas	_____	28. Perseveres until the task is finished	_____
6. Is reserved	_____	29. Can be moody	_____
7. Is helpful and unselfish with others	_____	30. Values artistic, aesthetic experiences	_____
8. Can be somewhat careless	_____	31. Is sometimes shy, inhibited	_____
9. Is relaxed, handles stress well	_____	32. Is considerate and kind to almost everyone	_____
10. Is curious about many different things	_____	33. Does things efficiently	_____
11. Is full of energy	_____	34. Remains calm in tense situations	_____
12. Starts quarrels with others	_____	35. Prefers work that is routine	_____
13. Is a reliable worker	_____	36. Is outgoing, sociable	_____
14. Can be tense	_____	37. Is sometimes rude to others	_____
15. Is ingenious, a deep thinker	_____	38. Makes plans and follows through with them	_____
16. Generates a lot of enthusiasm	_____	39. Gets nervous easily	_____
17. Has a forgiving nature	_____	40. Likes to reflect, play with ideas	_____
18. Tends to be disorganized	_____	41. Has few artistic interests	_____
19. Worries a lot	_____	42. Likes to cooperate with others	_____
20. Has an active imagination	_____	43. Is easily distracted	_____
21. Tends to be quiet	_____	44. Is sophisticated in art, music, or literature	_____
22. Is generally trusting	_____		
23. Tends to be lazy	_____		

Appendix G: Doctor-Patient Satisfaction Questionnaire (DPSQ)

The following statements are some things people say about their maternity care. Please read each one carefully keeping in mind the maternity care you have received from your birth attendant (this can refer to either your obstetrician or midwife, whichever one you have used or are currently using) for your most recent pregnancy (birth). We are interested in your feelings, good and bad, about the maternity care you have received.

**How strongly do you AGREE or DISAGREE with each of the following statements?
Please check your responses next to each statement.**

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. My birth attendant is good about explaining the reasons for medical tests.					
2. I think my birth attendant's office has everything needed to provide complete maternity care.					
3. The maternity care I have been receiving is just about perfect.					
4. Sometimes my birth attendant makes me wonder if his/her diagnosis is correct.					
5. When I go for maternity care, they are careful to check everything when treating and examining me.					
6. I have easy access to the maternity care I need.					
7. Where I get maternity care, people have to wait too long for treatment.					
8. My birth attendant acts too business like and impersonal towards me.					
9. My birth attendant treats me in a very friendly and courteous manner.					
10. Those who provide my maternity care sometimes hurry too much when they treat me.					
11. My birth attendant sometimes ignores what I tell him/her.					
12. I have some doubts about the birth attendant that treats me.					
13. My birth attendant usually spends plenty of time with me.					
14. I believe that my birth attendant is concerned with my well-being.					
15. I find it hard to get an appointment for maternity care right away.					
16. I am able to get maternity care whenever I need it.					
17. I am dissatisfied with some things about the maternity care I					

receive.					
18. I feel that the treatment I receive from my birth attendant is effective					
19. Overall, I am satisfied by the maternity care I receive from my birth attendant.					
20. My birth attendant explains what I can expect regarding the birth experience.					
21. My birth attendant listens to what I have to say.					

Overall Satisfaction with Birth Attendant Measure

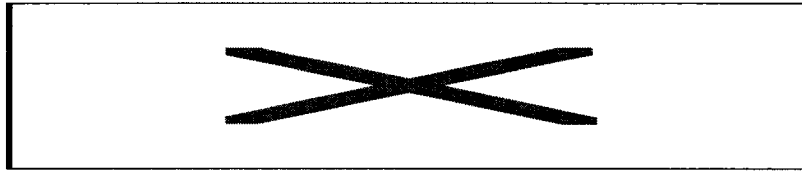
Please rate how satisfied you are with your most current birth attendant by circling a number from 1-10:

1	2	3	4	5	6	7	8	9	10
very dissatisfied			neither dissatisfied or satisfied				very satisfied		

Appendix H: Open-Ended Questions

1. What is your relationship with your birth attendant like?
2. What did you like and dislike about your relationship with your midwife/obstetrician?
3. Given the choice, would you use this midwife/obstetrician again? Why or why not?
4. Given the choice, would choose a midwife or obstetrician for your next birth? Why?

Appendix I: Letter of Information.



LETTER OF INFORMATION FOR CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: Satisfaction with a Midwife or Obstetrician Birth Attendant: An Exploration of Several Possible Predictors.

Thank you for taking interest in our study. You are asked to participate in a research study conducted by Karey Wilson and Dr. Fuschia Sirois, from the Department of Psychology at the University of Windsor. The study is Karey Wilson's master's thesis project.

If you have any questions or concerns about the research, please feel to contact Karey Wilson (student investigator) at (519) 253-3000 ext. 4704, wilso3k@uwindsor.ca, or Dr. Fuschia Sirois (faculty supervisor), (519) 253-3000 ext. 2224, fsirois@uwindsor.ca.

PURPOSE OF THE STUDY

We are interested in your personal experiences with the maternity care you are currently receiving. The purpose of this study is to explore factors that may be important to your satisfaction with your obstetrician or midwife, and also to explore factors that may partly explain what has motivated you to choose either an obstetrician or midwife birth attendant. We hope to accomplish this by surveying you about your relationship with your obstetrician or midwife and other factors such as health beliefs and personality.

PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

You will be asked to complete a survey about your maternity care experience online. The survey includes background questions about you and your pregnancy, as well as questions about your relationship with your midwife or obstetrician, your beliefs about health care professionals, your personality, and your health beliefs. The survey contains checklist like scales in addition to some open-ended questions.

You may complete the survey at a location of your choice. Completed surveys will be automatically sent to the researchers over the internet after your email address has been removed. If you would prefer completing a paper copy of the survey, please email your mailing address to wilso3k@uwindsor.ca and you will be sent a postage paid survey package in the mail to be completed at your earliest convenience.

The survey will take approximately 30 to 45 minutes to complete. After the research project is complete (October 2005), results will be available to you online at www.uwindsor.ca/matcaarestudy.

POTENTIAL RISKS AND DISCOMFORTS

Some women may experience some mild distress or discomfort as they focus on issues surrounding their maternity care.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

You may enjoy sharing your experiences of maternity care and voicing your opinions about the healthcare you have received. Also, participating in this study may allow you to further clarify your values and beliefs about what you expect from healthcare, and maternity care specifically.

This research will hopefully lead to a greater understanding of what factors are important in satisfying maternity care experiences.

PAYMENT FOR PARTICIPATION

You will receive no payment for participating in this study.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. In the survey, you will not be asked to give any identifying information. All surveys will remain anonymous; therefore your responses on the questionnaires will not be associated with your name. Surveys will be stored in a secure location accessible only to the researchers directly involved in the study. Your midwife or obstetrician will not have access to any information that you provide in this study. As well, any forms containing personal information, such as email requests for paper mail-in surveys, will be stored in a place that is secure. If a report of this study is sent to a scientific journal, all information will be presented in a way that protects your confidentiality. For example, information included will reflect group information, and any identifying information in quotations will be modified or removed. Following the guidelines of the Canadian and American Psychological Associations, data will be retained for a period of 5 years after which time it will be disposed of in a secure manner.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. Your participation or lack of participation in this study will not affect any current or future health treatments in any way. You also have the option to remove your data from the study should you decide to do so. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

Upon completion of the research, a brief report explaining the findings from this study will be made available to those interested. These reports will be available on the study website at www.uwindsor.ca/matcarestudy by October 2005.

SUBSEQUENT USE OF DATA

This data will be used in subsequent research on the experience of midwife and obstetrician maternity care. By completing and submitting the survey package you agree that this data can be used in subsequent studies.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. This study has been reviewed and received ethics clearance through the University of Windsor Research Ethics Board. If you have questions regarding your rights as a research subject, contact:

Research Ethics Coordinator
Telephone: 519-253-3000, ext. 3916
University of Windsor
Windsor, Ontario N9B 3P4

E-mail: lbunn@uwindsor.ca

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

Signature of Investigator

Date

We recommend that you print out a copy of this letter of information for your records.

Pass it on: Feel free to send this page to other people you know who are pregnant and in similar circumstances who might be interested in completing the survey.

Do you wish to continue? To acknowledge that you have read and understood this information and would like to continue with the survey, please click on I AGREE

Table 1.

Structure Matrix for the Principal Axis Factor Analysis for the Birth Philosophy Scale (Medical Birth Philosophy Loads on Factor 1 and Natural Birth Philosophy loads on Factor 2).

Item	Factor 1	Factor 2
11	0.79	-0.41
4	0.79	-0.53
5	0.75	-0.55
3	0.73	-0.41
1	0.60	-0.37
8	0.58	-0.15
15	0.57	-0.09
6	0.53	-0.26
13	0.51	-0.33
10	0.48	-0.29
16	0.37	-0.14
19	-0.40	0.82
12	-0.59	0.81
22	-0.24	0.71
21	-0.19	0.69
20	-0.38	0.58
2	-0.28	0.56
7	-0.40	0.54
18	-0.51	0.54
17	-0.19	0.46

(N=112)

Rotation: Promax with Kaiser Normalization

Table 2.

Summary of Sample Characteristics Stratified by Birth Attendant Group (N = 112)

Characteristic	Total Sample Freq (%)	Midwife Group Freq (%)	Obstetrician Group Freq (%)
Education			
high school	9(7.9)	6 (8.0))	3 (8.1)
college/university	76 (68)	49 (65.3)	27 (73.0)
graduate school	27 (24)	20 (26.7)	7 (18.9)
Province			
British Columbia	14 (12.5)	11 (14.7))	3 (8.1)
Manitoba	1 (.9)	0 (0)	1 (2.7)
Ontario	93 (83)	61 (81.3)	32 (86.5)
Quebec	3 (2.7)	2 (2.7)	1 (2.7)
Occupational Status			
full-time	60 (53.6)	38 (50.1)	22 (59.5)
part-time	21 (18.8)	17 (22.7)	4 (10.8)
not at all	31(17.7)	20 (26.7)	11 (29.7)
Financial Status			
comfortable, don't worry about money	61 (54.5)	42 (56.0)	19 (51.4)
making ends meet, getting by struggling a lot financially	46 (41.1)	31 (41.3)	15 (40.5)
	5 (4.5)	2 (2.7)	3 (8.1)
Ethnic Background			
Caucasian	101 (90.1)	69 (92.0)	32 (86.5)
East Indian	3 (2.7)	1 (1.3)	2 (5.4)
Hispanic	1 (.9)	0 (0)	1 (2.7)
Aboriginal	2 (1.8)	2 (2.7)	0 (0)
Asian	2 (1.8)	1 (1.3)	1 (2.7)
unknown	3 (2.7)	2 (2.7)	1 (2.7)
Marital Status			
married/living with an intimate other	107 (95.5)	71 (94.7)	36 (97.3)
never married	2 (1.8)	2 (2.7)	1 (2.7)
divorced/separated	3(2.7)	2 (2.7)	0 (0)
Psychiatric Diagnosis			
yes	12 (10.7)	7 (9.3)	4 (10.8)

Table 3.

Pregnancy and Birth Attendant Related Characteristics of Sample Stratified by Birth Attendant Group.

Characteristic	Birth attendant groups		
	Total sample freq(%)	Midwife freq(%)	Obstetrician freq(%)
Pregnancy Risk Level			
Low	106 (94.6)	74 (98.6)	32 (86.5)
high	6 (5.4)	1 (1.3)	5 (13.5)
Pregnancy Number			
1	51 (45.5)	33 (44)	18 (48.6)
2	33 (29.5)	22 (29.3)	11 (29.7)
3 or greater	25 (22.3)	18 (24)	7 (18.9)
Did woman consider a midwife			
yes	83 (74.1)	72 (96)	11 (29.7)
no	24 (21.4)	0 (0)	24 (64.9)
Were midwives available			
yes	102 (91)	75 (100)	20 (54.1)
no	1 (.9)	0 (0)	1 (2.7)
don't know	9 (8)	0 (0)	9 (24.3)
<hr/>			
Characteristic	Total Mean(Range)	Midwife Mean (Range)	Obstetrician Mean (Range)
Age	30.1 (19-40)	30.3 (19-40)	29.9 (22-39)
Week in pregnancy	27.3 (9-41)	28.1 (9-41)	25.7 (11-41)
consults with birth attendant	5.7 (3-15)	6.0 (3-15)	5.1 (3-12)

(N = 112)

Table 4.

Results of the Series of ANOVAs for the Match Between Preferred and Actual Relational Style of Birth Attendant and its Effect on Different Types of Satisfaction.

DV	marginal means		F	p value
	match (N=89)	mismatch (N=23)		
satisfaction with the communicative and relational aspects of birth attendant	4.40	4.21	.80	.37
satisfaction with technical quality	4.40	4.15	1.79	.18
satisfaction with accessibility	4.13	4.01	.33	.57
general satisfaction	3.39	3.27	.44	.46
total satisfaction	4.18	4.00	1.02	.31

*Mismatches with authoritarian preferences were recoded as matches. A second group of ANOVAs garnered no significant results.

Table 5.

Intercorrelations Among Individual Difference Variables and Preferred Relational Style of Healthcare Professional.

	BAHPr	O	HSE	Med
Preferred relational style of healthcare professional (BAHPr)				
Openness to new experience (O)	-.37**			
Health self-efficacy (HSE)	-.31**	.31**		
Medical Birth Philosophy (Med)	.68**	-.24*	-.20*	
Natural Birth Philosophy	-.37**	.34**	.27**	-.44**

(N = 112)

Note. ** $p < .01$, * $p < .05$ (1 tailed)

Table 6.

Regression Equation Statistics for Several Predictor Variables on Preferred Style of Healthcare Professional.

Predictor variables	B	Std. Error	Beta	<i>t</i>	<i>p</i> value	Total R^2
						.52
Openness to new experience	-.18	.07	-.18	-2.42	.017	
Health self-efficacy	-.13	.07	-.13	-1.83	.070	
Medical birth philosophy	.37	.05	.61	8.15	.000	
Natural birth philosophy	-.00	.05	-.00	.27	.979	

(*N* = 112)

Table 7.

Independent Samples T-Tests Comparing Midwife and Obstetrician Group Means in Potential Logistic Regression Predictor Variables.

Variables	mean	SD	<i>t</i>	<i>p</i> value	std error difference
preferred relational style	MW 2.69 OB 3.11	.598 .432	-4.30	.00	0.1
openness to new experience	MW 3.78 OB 3.40	.568 .548	3.32	.14	0.11
health self-efficacy	MW 4.85 OB 4.67	.566 .646	1.49	.14	0.12
medical birth philosophy	MW 3.51 OB 4.31	.953 .737	-4.90	.00	.16
natural birth philosophy	MW 5.07 OB 3.96	.672 .816	7.66	.00	.15

(*N* = 112)

*Note: MW = midwife, OB = obstetrician

Table 8.

Adjusted Odds Ratio and 95% CIs for the Predictors of Birth Attendant Type.

Predictor variables	Wald	SE	odds ratio	95% CI lower	95% CI upper	<i>p</i> -value
Education	.13	.56	1.23	.41	3.70	.71
Openness to new experience	1.90	.52	2.05	.74	5.70	.17
Medical birth philosophy	1.17	.47	.60	.24	1.51	.28
Natural birth philosophy	16.82	.42	5.51	2.44	12.46	.00
Preferred relational style	.45	.70	.63	.16	2.47	.76

(*N* = 112)

Table 9.

Correlations Between Individual Difference Variables and Total Satisfaction.

Variable	
Preferred relational style	-.30**
Openness to new experience	.24*
Health self-efficacy	.35**
Medical birth philosophy	-.21*
Natural birth philosophy	.44**

Note. ** $p < .01$, * $p < .05$ (1 tailed)
($N = 112$)

Table 10.

Regression Equation Statistics for Several Predictor Variables on Total Satisfaction with Birth Attendant with Main Effects (Model 1), Main Effects and Interaction Terms (Model 2), and Main Effects and Interaction Terms with Birth Attendant Reverse-coded (Model 3).

Predictor variables	<i>b</i>	std error	Beta	<i>t</i>	<i>p</i> value	Total <i>R</i> ²
Model 1						.30
Openness to new experience	-.01	.12	-.01	-.09	.92	
Health self-efficacy	.30	.12	.24	2.64	.01	
Medical birth philosophy	.11	.09	.14	1.17	.24	
Natural birth philosophy	.21	.09	.25	2.28	.03	
Preferred style	-.20	.16	-.15	-1.29	.20	
Birth attendant	-.37	.17	.23	-2.22	.03	
Model 2						.37
Openness to new experience	-.06	.12	-.04	-.47	.64	
Health self-efficacy	.05	.14	.04	.35	.73	
Medical birth philosophy	.15	.09	.18	1.55	.13	
Natural birth philosophy	.37	.12	.43	2.96	.004	
Preferred style	-.27	.15	-.21	-1.80	.08	
Birth attendant	-.45	.173	-.281	-2.620	.01	
BA*HSE	.65	.22	.32	2.97	.004	
BA*NAT	-.36	.18	-.28	-1.96	.05	
Model 3						.37
Openness to new experience	-.06	.12	-.04	-.47	.64	
Health self-efficacy	.70	.171	.54	4.08	.000	
Medical birth philosophy	.15	.09	.18	1.55	.13	
Natural birth philosophy	.005	.133	-.06	.04	.97	
Preferred style	-.27	.15	-.21	-1.80	.08	
Birth attendant	.45	.17	.28	2.62	.01	
BA*HSE	-.65	.22	-.39	-2.97	0.004	
BA*NAT	.36	.18	.27	1.96	.05	

(*N* = 112)

Vita Auctoris

Karey L. Wilson was born in 1980 in Ajax, Ontario. She graduated from I. E. Weldon Secondary School in 1994, and then enrolled at Wilfrid Laurier University. She graduated with an Honours Bachelor of Arts in Psychology and Fine Art in 2003. She is currently a graduate student at the University of Windsor and hopes to graduate with a Master's degree in clinical psychology in the fall of 2006.