

ALLIED HEALTH

Appropriate Use of Technology: A Key Element in the Ontario Midwifery Model of Practice

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ABSTRACT

The current midwifery model of practice in Ontario, Canada has its roots in a historical perspective favouring natural birth. The “appropriate use of technology,” became a critical principle of care in the current Ontario midwifery model of practice in an effort to offer healthy women with uncomplicated pregnancies the opportunity to deliver their babies in situations with limited intervention. When used appropriately, obstetrical technology is employed only in those clinically-indicated situations supported by evidence-based research. This philosophical orientation ensures that the *possibility* of a medical complication does not dictate the entire birth experience, allowing midwives to take a holistic approach encompassing the social, emotional, spiritual and psychological needs of a pregnant or labouring woman. The midwifery model of practice in Ontario ensures that women, to their benefit, can access care based in a non-interventionist philosophy of normal birth. However, a balance needs to be achieved between patient benefit and risk to the provider. The College of Midwives of Ontario, in collaboration with the provincial government, needs to monitor the risks this philosophy presents to practitioners, and work to develop protective legislation.

Although a number of core elements comprise the official midwifery model of practice in Ontario, Canada, the profession’s dedication to the appropriate use of technology represents one particularly key principle of care. As stated in the Philosophy of Midwifery Care, “Midwifery care is based on a respect for pregnancy as a state of health...Midwives focus on preventive care and the *appropriate use of technology*,”¹ [*emphasis added*]. For the purposes of this paper, “appropriate,” refers to situations where the use of obstetrical technology is clinically indicated, supported by robust, evidence-based research,^{2,3} and intervenes minimally in the natural birth process. The goal of using of technology appropriately does not mean that midwives abhor the use of any obstetrical technological interventions, but instead demonstrates midwives’ acknowledgment that many technological procedures carry risk, and therefore require judicious application⁴ - using the right intervention, at the right time, in the right way.⁵ The Midwifery Task Force of Ontario (MTF-O) report states, “no sensible person minimizes the benefits of these medical advances;”⁶ at the same time, midwives feel the effect of intervention in birth is not inconsequential, and seek to avoid the tendency to use interventional technologies habitually, or for reasons of convenience,^{7,8} in routine birth events where intervention is not required or indicated.

BACKGROUND: INTERVENTION AND BIRTH

Historically, the philosophy of community midwives included the view of birth as a normal, healthy process,⁹ and midwives maintained an approach of least intervention. Today’s midwifery model of practice in Ontario has its roots in this early historical perspective of natural birth.

Birth became increasingly hospital-based during the early twentieth century, and by the 1950s the medical profession’s increasingly powerful influence subsequently culminated in the shifting of midwifery away from mainstream perinatal care in Ontario,^{6,10} with a concurrent increase in the use of obstetrical technologies.⁶ The interventionist model, supported by many physicians, dominated the practice of birth, encouraging the development of numerous new medical interventions for childbirth.⁶ Ultimately, laboratory tests and obstetrical procedures were used with “little or no prior evaluation,” of their efficacy or overall effect on women’s birth experiences.⁶ More and more, the line between women *at risk* for pathology, and women with a *diagnosed* clinical problem became blurred, which lead to an increased use of obstetrical interventions,⁶ such as continuous electronic fetal monitoring (EFM), forceps, artificial rupture of the membranes, epidural blocks, and caesarian sections.^{4,11,12} Caregivers soon had limited experience with normal, intervention-free birth.⁶

Increasing numbers of women and childbirth advocates, including some members of the medical profession,⁶ sought an alternative to the mainstream view of birth as a pathological condition. Supporters of natural childbirth began to challenge the status quo, citing a “feeling that something valuable has nearly been lost in these medical advances.”⁶ By the 1970s, the cultural perspective of childbirth began to change,⁸ and a natural childbirth movement emerged, instigated by a desire to reclaim traditional birth,¹⁰ and fueled by the advent of organized feminism.⁸ The general dissatisfaction with the routine use of unnecessary interventions in labour¹³ provided an opportunity for midwives and others to lobby for the return of the midwifery profession as a legally acceptable alternative to the interventionist model more commonly applied by the mainstream medical community.⁸

In seeking to reclaim birth and “humanize reproductive care,” women turned to midwives⁶ [p63] for a holistic approach to childbirth that used technology in a more judicious manner.⁶ In turn, midwives turned to the childbirth movement for assistance in the development of a midwifery model of practice, with the overarching goal of balancing technological advances with support for a natural approach to birth.¹³ The World Health Organization (WHO) recently released a report recognizing registered midwives (or their equivalent) as the preferred provider of first-level obstetrical care, provided that “back-up” care is provided for the minority of women who may require it. The WHO statement also encourages hospitals providing first-level care to replicate midwifery’s “demedicalized and close-to-client characteristics”.⁵

THE CURRENT MIDWIFERY NON-INTERVENTIONIST APPROACH

Balanced consideration of clinical indications before intervention, particularly with respect to obstetrical technology, became a critical element to the Ontario midwifery model of practice, in an effort to offer healthy women with uncomplicated pregnancies the opportunity to deliver their babies in a natural, personally satisfying way.⁶ The Ontario midwifery model of practice makes the essential distinction between using technology in specific, clinically indicated circumstances, and the routine use of a medical intervention.⁴ The appropriate use of technology permits midwives to provide holistic care, combining the best of traditional midwifery practices with modern obstetrical knowledge.⁹ This philosophical orientation, aimed at protecting the “natural physiology of childbirth,”¹⁴ ensures that the *possibility* of a medical complication does not dictate the entire birth experience; as stated by the WHO, “there is a value in the rituals surrounding birth”.⁵ Furthermore, midwives are able to attend to the social, emotional, spiritual and psychological needs of a pregnant or labouring woman.^{11,14}

RELATIVE BENEFITS AND DISADVANTAGES OF THE MIDWIFERY MODEL

Research indicates that in low-risk pregnancies, mothers receiving midwifery care demonstrate comparable clinical outcomes to those women under a physician’s care.¹⁵ However, midwifery’s emphasis on the appropriate use of technology, coupled with a philosophy of attentive, individualized care, results in the use of fewer interventions.^{4,11,12,16} To their benefit, women under midwifery care are less likely to experience continuous electronic fetal monitoring (EFM), artificial rupture of the membranes, epidural blocks, caesarian sections,^{4,11,12} forceps, episiotomies, or pharmaceutical induction of labour.¹⁵ The use of one intervention, such as an epidural, tends to lead to the use of another intervention, such as a caesarian section (the “Cascade Effect.”)^{4,14} Each intervention has the potential to cause additional complications, and many interventions carry their own risks.¹⁴ For example, women who receive a caesarian section experience a greater likelihood of hemorrhage, and an increased risk of certain reproductive and placenta-related problems.¹⁶ Most maternal deaths occur following complications, or “are caused by any interventions, omissions, incorrect treatment, or events that result from these complications.”⁵

Using less technology tends to increase the professional time spent with a client,¹³ and the use of hands-on care to provide encouragement and support.^{12,14} Certain “peripheral, yet important,” information can be gained by using less technologically advanced methods; for example, gestational age can be determined by the holistic method of combining an abdominal examination with a detailed history,⁷ which may provide additional clinical details. Evidence suggests that additional support may significantly reduce the use of caesarian sections and assisted delivery.⁶ In other words, “treating labours as normal may help them stay normal,” to the ultimate benefit of women who go on to experience a normal, natural birth.¹⁴

Midwives benefit from the appropriate use of technology primarily through the benefits experienced by their clients. Women who participate in a natural birth tend to report higher satisfaction with their birth experience,^{12,15} and a “sense of empathy with their provider,”¹² concurrently increasing a midwife’s job satisfaction.⁶ However, although the benefits to both childbearing women and midwives are significant, this model demands significant amounts of midwives’ clinical time and emotional energy, which can be inconvenient and may adversely impact midwives’ personal lives.^{4,13} In addition, one of the contributing factors as to why physicians order multiple interventions is a fear of litigation; although research indicates that midwives are less likely to be sued due to their positive relationships with clients, they are certainly not entirely protected from litigation.⁶

THE FUTURE OF MIDWIFERY CARE IN ONTARIO

Evidence suggests that midwifery care produces child-birth outcomes that are at least as safe as those achieved in the medical model.¹² The decreased dependence on costly technology, however, makes midwifery less resource intensive.^{5,6,11} Considering the government's ongoing intention to control healthcare spending, the comparative affordability of midwifery care may influence the government toward supporting the profession financially, and legislatively.

Midwives still experience barriers to mainstream acceptance, and the profession's philosophy towards use of technology may contribute to its marginalization. North American society believes, to a certain degree, in "technological determinism," which, when applied to childbirth, results in the idea that safe birth is impossible without certain technological interventions.⁷ A strongly held belief in the necessity of technology hinders acceptance of the profession of midwifery at an individual level: some women will choose not to have a midwife, or demand certain medical interventions regardless of the lack of clinical indication.¹² The high value that society places on technology also creates challenges for the midwifery profession at an institutional level.⁷ Interventions such as continuous EFM in labour, although of debatable clinical benefit and lacking some evidence-based research support, are increasingly becoming standards of care,¹² which can have serious consequences for the midwifery profession. To survive, the midwifery profession may inevitably become increasingly reliant on obstetrical technology; otherwise, midwives may leave themselves open to litigation by not following suggested recommendations around standards of care. However, medical organizations, such as the Society of Obstetricians and Gynaecologists of Canada (SOGC) are beginning to publicly support midwives, recognizing "the importance of choice for women and their families in the birthing process."¹⁷

CONCLUSION

The Ontario midwifery model of practice's philosophy towards technology ensures that women can access care based on a non-interventionist philosophy of normal birth. However, a balance needs to be achieved between patient benefit and risk to the provider. The College of Midwives of Ontario, in collaboration with the provincial government, needs to monitor the legal risks this philosophy presents to practitioners, and work to develop protective legislation. †

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