

DESIGNING MIDWIVES: A COMPARISON OF EDUCATIONAL MODELS*

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INTRODUCTION: EDUCATION AND SOCIALIZATION

How should aspiring midwives be prepared for their role as caregivers? What do midwives need to know? Who should teach them? Where should the education of midwives take place? There are no easy answers to these questions. All educational models have strengths and weaknesses. In the following pages we offer a cross-cultural comparison of the preparation of midwives that shows how educational programs are created and how different programs shape the way midwives practice.¹

Becoming a midwife requires both *education* and *socialization*: in our analysis we examine both processes. We use the term "education" to refer to the formal requirements and organization of the midwife training program. We use the term "socialization" to signify the informal process -- or "hidden curriculum" (Illich 1973) -- by which a midwife acquires the "shared culture" of midwifery -- its values, beliefs, attitudes, behavior patterns, and social identity. Our comparative study uncovers the many ways the wider sociocultural context shapes both educational programs and socialization processes: by looking at midwifery education in several different settings we see how the preparation of midwives is influenced by medical and technological advances, new pedagogical ideas, gender relations, state policies, and economic and cultural change.

We begin our analysis by distinguishing two transnational trends and describing the three basic models of midwifery education that serve as our analytical frame. In order to illustrate how these trends and models of care are influencing the education of midwives, we examine the state of the art in midwife preparation in four countries: the United States (US), the Netherlands, Canada, and the United Kingdom (UK).

Transnational trends and types

When we look at midwifery education in the high-income countries of Western Europe and North America, we find two important trends: a move toward university education and the development of direct entry programs.

A trend toward higher education.

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In Western technocratic societies professional status and success requires ever-higher levels of education. This trend is influencing midwifery education. In the UK, for example, midwifery training was purely vocational until the late 1980s. Midwives were educated at small schools in National Health Service (NHS) hospitals with clinical teaching carried out in hospitals and the community. UK Midwives now train in universities. In the US, nurse-midwives succeeded in moving midwifery education to the postgraduate level by requiring an undergraduate degree as a prerequisite for entry into their educational programs.² There are a few exceptions to this trend. Midwives in the Netherlands resisted the trend toward university education, deliberately choosing to retain their vocational style of training; and in the US, non-nurse midwives are preserving stand-alone apprenticeship as a viable educational path. Canadian midwives, struggling with the tension between their heritage of independent apprenticeship and strong cultural pressure to require a university degree, accepted university education at the undergraduate level but stopped short of following their American nurse-midwife colleagues into the postgraduate realm.

A trend toward “direct-entry” midwifery education

Increasing numbers of midwives -- from Canada to Australia -- are questioning the need to be trained as a nurse in order to practice as a midwife. They believe that nursing education supports a structural subordination to physicians and leads to a lack of decision-making power. In many of the countries where midwifery is closely linked to nursing we find movements that seek to dissociate midwifery from nursing and to increase the autonomy of midwives. In the UK, for example, decades of emphasis on nurse-midwifery have given way to a revival of interest in direct-entry education and enrollment into direct-entry programs is on the rise. In the US, nurse-midwives, solidly grounded in nursing for the past seventy years, have created a new direct-entry educational track. The newly established form of midwifery in Ontario, Canada, resulted from an early alliance between nurse- and direct-entry midwives that included agreement that nursing would not be a requirement. Midwives in the Netherlands and the home birth midwives in the US are proud that their educational models have never mixed nursing and midwifery. It is no accident that high degrees of autonomy characterize Dutch and Canadian midwives and American home birth midwives, all of whom are direct-entry, while British midwives (most of whom are also nurses) and American nurse-midwives often chafe against NHS and nursing hierarchies that subordinate them to physicians.³

It is important to understand that the term “direct-entry” is used in different ways in different countries. In the UK, Canada and the Netherlands, as in most European countries, “direct-entry midwifery” means that one graduates from a formal, government-accredited training program that educates students as midwives without requiring them to gain a nursing qualification. In the US the situation is more complex. As independent (i.e., non-nurse) midwives in the US began to refine their knowledge and skills they developed state and national certification programs. In the early 1990s they began to call themselves “direct-entry” midwives, a term they adapted to mean that one enters directly into *any type* of midwifery education--including apprenticeship, vocational, and university-based programs -- without first passing through nursing. When the American College of Nurse-Midwives (ACNM) developed its non-nursing certification, its members also began to use the term “direct-entry.” In ACNM

parlance the term means preparation through an *ACNM-accredited* program that does not require nursing as a prerequisite. The common feature that unites these varied definitions is agreement that nursing instruction is not a requirement for entry into midwifery education; it is in that broad sense that we use the term “direct-entry” in this chapter.

Educational Models

There is great variety in the educational programs for midwives in the countries of Western Europe and North America. In order to analyze that variety we have created a continuum that describes the possibilities for midwife education: this continuum ranges from hands-on apprenticeship, through vocational training, to university-based education. As with all typologies, these categories -- apprenticeship, vocational, and academic -- represent ideal types; programs in the countries we examine combine elements of all three models in ways that are unique to the existing social and cultural situation. This variation, coupled with a fascinating mix of reactions to the trends toward direct-entry and university education offer rich ground for comparison and analysis.

In the sections that follow we explore these three educational models. Each section opens with a fictional story that provides a window into the experience of a midwife trained according to the tenets of that model. We then describe the model’s characteristics, consider its advantages and disadvantages, and offer a detailed case study of its use in one country. We conclude each section with a short summary of the variations of the educational model found in other countries.

APPRENTICESHIP

Imagine being in the shoes--or the wooden clogs--of Annika, a peasant girl growing up in a rural farming community in continental Europe three centuries ago. Annika is 15 years old. She cannot read or write, but this was not uncommon; only a few of the adults in the village have the ability to decipher more than the odd word or two of written text. Although at the time there are a few schools in urban areas of the continent, these are completely removed from Annika’s experience. She knows no one well who has attended school, save the local clergyman. Yet already for the past eight or nine years, Annika has been “at work,” spending a part of her time accompanying the local midwife while she attends to the concerns of pregnant women in the community. Recently, Annika had the opportunity to actually take over for the midwife, who looked on as Annika assisted a local woman through her labour and delivery. Annika hopes to eventually become a full-fledged midwife after her teacher retires.

Annika has never left the area in which she was born, and in fact has spent most of her life within her village and its surrounding fields, only occasionally, during times of religious celebrations or weddings or funerals, travelling to other local villages and nearby craft towns. Annika will eventually marry a local peasant boy and, like the other women in her community, bear children to help plant and till the fields which are the main breadbasket for the villagers. Her younger brothers and sisters will do likewise, and thus continue with the cycle of peasant

agriculture like their ancestors before them. And like the ancestors that preceded her in midwifery, Annika will serve the women of her community, supporting them through the pains of labor and guiding them as they give birth.

History and Characteristics of Apprenticeship

Although Annika is "uneducated," she is far from ignorant. At the age of 15 years, Annika has already developed a sensitive and deep understanding of family and kinship arrangements in her village, she is aware of the health status of most of the women, and she has observed a number of births in women's homes. Annika has a mastery of local customs and traditions, which will serve her well as she prepares for her role as village midwife.

Annika is an imaginary figure, a composite and somewhat romanticized picture of a typical peasant girl growing into adulthood in pre-modern Europe. Formal education of midwives is a relatively recent development, beginning with the development of written language and the city-states of ancient civilizations. Historically, there was but one type of knowledge transmitted to neophyte midwives -- "lay" knowledge or "lifeworld" knowledge that was gained by watching an experienced midwife at work, and eventually by the trainee doing more and more of the work herself (Benoit 1989).

Apprenticeship learning is full-bodied and experiential, involving the senses (Davis-Floyd 1998a, b). In apprenticeship systems, even watching is participatory; the apprentice never simply observes. Rather she is almost always involved in some way, carrying water, providing clean cloths, preparing food, or massaging the mother. This method of learning fits well with the demands of the job: the apprentice learns in the sorts of environments in which she will practice. Traditionally, midwives were also expected to acquire a body of cultural-religious knowledge, which included how to deal with such things as death in childbirth and how to dispose of the afterbirth. In acquiring this cultural-religious knowledge and the practical techniques needed to be a midwife, a young woman came to learn the shared values, codes of behavior, and common mores of those in her "lifeworld" (Böhme 1984).

Although superseded by more didactic vocational and university-based models in high-income countries, apprenticeship is still part of the curriculum. Like medical training, institutionally-based education for midwives retains aspects of apprenticeship in the form of clinical training under preceptors. Hands-on, one-on-one interactions with preceptors reminiscent of apprenticeship characterize midwives' training in all high income countries. Of course there are important differences between pure apprenticeship and clinical preceptorship. The most significant of these is the particularly close and intense quality of the student-mentor relationship in a pure apprenticeship model.

Case Study: Apprenticeship Training in the United States

History and Current Status

The US is unique among developed countries in that all types of midwifery education exist there. The continued use of apprenticeship can be traced to the rise of American lay midwifery during the 1970s and 1980s. The pioneers of this social movement – including internationally known midwives Raven Lang, Ina May Gaskin, and Elizabeth Davis – learned about birth by attending the births of friends, reading books, and apprenticing with other midwives, nurses or, on occasion, physicians. In time they developed a unique body of knowledge that reflected their lived experience of home birth. They created a sophisticated system of apprenticeship in order to preserve the knowledge they had gained and to avoid being incorporated into universities or subsumed into nurse-midwifery. The earliest midwives were self-taught, but as their knowledge base grew, they began to train others.

As these lay midwives gained licensure and regulation in various states, they developed a number of formal programs, including vocational schools. Eventually they dropped the appellation “lay” in favor of the more professional “direct-entry.” But even as they professionalized, apprenticeship remained central to their sense of identity as autonomous and independent out-of-hospital practitioners. In 1982 they founded the Midwives’ Alliance of North America (MANA), an organization that primarily represents direct-entry midwives who practice outside of hospitals. Throughout the 1980s MANA members developed standards for practice and core competencies to guide midwife training. In the early 1990s North American Registry of Midwives (NARM) – an affiliate of MANA – developed a new national certification, the Certified Professional Midwife (CPM); to date over 600 direct-entry midwives have obtained CPM certification.⁴ The CPM is a competency-based credential – it is based on educational evaluation and testing of applicants to make sure they have the knowledge, skills, and experience deemed necessary by NARM for safe-entry level practice – and does not require a university degree. A primary motivator for the development of this credential was a desire among MANA members to legitimize apprenticeship through creating a mechanism for evaluating the knowledge, skills, and experience of the apprentice-trained midwife.

The apprenticeship training that produces many of today’s independent direct-entry midwives takes various creative and original forms; fundamentally it involves attending births with one or more practicing midwives, assisting them in myriad ways, and observing the way they interact with and care for pregnant, laboring, and postpartum women. Apprentices also watch and help with emergencies, discussing every detail of care. The experienced midwife and apprentice develop an intimate relationship that facilitates rapid learning within a context of trust. Countless hours are spent together as they perform prenatal and postpartum exams, attend home births, and manage the routine maintenance of equipment and clinic space. This often involves both mundane and essential tasks such as cooking, cleaning, childcare, public relations, pelvic exams, labor support, chart review, and attending workshops and conferences together. Through this contact the midwife and apprentice come to develop a deeply bonded relationship that many see as essential to successful midwifery education. All published descriptions of midwifery apprenticeship stress the importance of this relationship; two even contain sections on what to do when the relationship is not “working” as it should (Steiger 1989, Davis 1997). The average duration of such apprenticeships is around three years.

Strengths and Limitations of American Apprenticeship Training

The deep commitment of American direct-entry midwives to apprenticeship comes from two basic beliefs: (1) a fear birth generates complications; and (2) midwives who trust birth profoundly can help women give birth more effectively. The argument used in favor of apprenticeship training is that “to trust a woman to give birth is to help her trust herself.” Most of the time birth goes well and requires no intervention; thus, apprentice-trained midwives are, for the most part, exposed to women working hard and successfully giving birth. Although they have opportunities to experience pathology and emergency management over the course of their apprenticeship training, these incidences form the periodic punctuation, not the defining ethos, of their clinical experience (Davis-Floyd 1998a). Apprentice-trained midwives develop a strong faith in themselves, in the inherent trustworthiness of the birth process, and in a woman’s ability to give birth on her own. Their training gives them experience with the wide range of “normal” birth outside of hospitals. Apprentice midwives often include a stint in a high-volume midwifery service as part of their training. Here they encounter many complications, but this exposure takes place against an already-established background of trust in the power of women and in the normal process of birth.

There are additional benefits of apprenticeship training. Apprentice learning is financially and geographically accessible, allowing women to become competent practitioners even if they do not have the money or the mobility to attend a private school or university. Apprenticeship learning is connection-based. When an apprentice is at a birth where the woman hemorrhages, she will spend the next day studying every book she can find on postpartum hemorrhage and will quiz her mentor about its management. She knows, in an immediate and visceral sense, why this knowledge matters.

According to MANA midwives, “pure apprenticeship” is a long-term (usually three-year) learning process involving one teacher and one student with a focus on out-of-hospital birth. This is sometimes difficult to manage. Indeed, one of the limitations of pure apprenticeship is the relatively small number of experienced midwives available to serve as mentors.⁵ More than other educational models, successful apprenticeship is tied to the motivation of the learner, the abilities of the teacher, and the quality of their relationship. If mentor and apprentice do not communicate well, if the student is unmotivated, or if the mentor is deficient in knowledge, clinical judgment, skills, or the ability to interact with clients, the student suffers. Other limitations of pure apprenticeship include the absence of in-hospital training and infrequent exposure to birth complications. can be rare for midwives who learn purely through low-volume home birth practice. Because of its special combination of intimacy and efficacy there is a growing trend in adult education toward re-valuing apprenticeship as a viable educational style for the 21st century, although in a technocracy apprenticeship training alone is not recognized as a valid educational route to professional practice.⁶

The Convergence of Didactic and Experiential Models

In the US, apprenticeship training in its pure form is increasingly rare. Today many apprentices work with more than one mentor in order to insure that they have exposure to more than one style of practice. After two to three years of one-on-one apprenticeship, many

students complete their training by working in high-volume clinics in the US or in a low-income country where they can be exposed to the complications of birth and can learn to deal with them effectively.⁷ Many direct-entry educators are combining apprenticeships with more didactic models and mentors are creating semi-structured curricula to make sure their students meet the standards set by NARM. These curricula include independent reading, weekly classes taught by midwives in their communities, and, in some cases, college courses in the basic sciences. This syncretistic trend reflects a growing convergence between apprenticeship models and more formal didactic models.⁸

Apprenticeship as an Educational Component in the Netherlands and Canada

Apprenticeship continues to play an essential role in midwifery education in many countries. The vocational training of Dutch midwives contains a large apprenticeship component — approximately half of the total learning experience in the curriculum. Most of this time is spent with practicing community midwives who have received training in being a midwifery mentor. Apprenticeships foster the education of Dutch midwives in three ways: (1) they make it possible for students to practice the technical aspects of obstetric/midwifery procedures; (2) they give them a means to put their acquired theoretical information into practice; and (3) they build students' insight and help them gain practical experience.

In Canada, many of the newly registered midwives were educated in one-on-one apprenticeships; in some cases they supplemented their training with formal lectures and/or preceptorships outside the country. In Ontario an altered form of preceptorship forms a part of the university education program, and in remote parts of Canada apprenticeship plays a role in midwife training (see Daviss 1997, O'Neil and Kaufert 1990, Morewood-Northrop 1997).

VOCATIONAL TRAINING

Lou-Anne was born in a small outport community on the southwest coast of Newfoundland (Canada). Though now retired from midwifery practice, Lou-Anne still has vivid memories of her vocational training and subsequent practice in the local cottage hospital serving the people of her own and neighbouring communities. In the 1980s, the provincial highway connected Lou-Anne's community to the larger urban areas, and the new regional hospitals located there led to the demise of the cottage hospital system, and eventually the vocational style of training midwives as well. However, prior to these developments of modernization, Lou-Anne and her co-workers literally "ran the show" on the cottage hospital maternity ward, and were held in high esteem by the local birthing women and their families.

Lou-Anne stresses that she is a trained midwife; in her view acquisition of skills via practical experience and specialized formal knowledge achieved through a vocational program are both essential for qualified midwifery practice. Lou-Anne also stresses that her formal qualifications and practical experience have given her a government license and access to public employment, granting her a kind of occupational status and economic security not enjoyed by her predecessors. Lou-Anne states, "The more I found out about maternity work,

the more I wanted to become educated in it.” Her vocational midwifery training included formal lectures, technical training on the use of obstetrical instruments, and extensive clinical experience both on the hospital’s maternity ward and in women’s homes. As Lou-Anne explains, “What I didn’t learn from the midwifery training, I could learn on the cottage hospital ward because we had to do these things, emergency things as well as the practical delivery of babies.” Today Lou-Anne’s workplace, the cottage hospital, is confined to the northern areas of the province and the vocational style of training midwives for practice in Canada has completely disappeared.⁹

History and Characteristics of Vocational Training

As high-income countries began to industrialize, a new form of "vocational" midwifery education emerged. This new approach required students to read obstetrics and attend lectures given by obstetricians and senior midwives. The lectures took place in formal settings -- cottage hospitals, birthing centers, and later, in larger hospitals where student midwives could observe women during labor and delivery. At first, these formal midwifery training programs ran for only a number of weeks, but they were gradually extended as the twentieth century unfolded (Benoit 1991, Carter and Duriez 1986). Didactic learning in the classroom was complemented with hospital observation and practical experience with birthing mothers, many of whom were poor women without adequate living conditions for home birth. Apprenticeship was not absent from the vocational model. Midwives in vocational training continued to learn much of their art and science by actually *doing* midwifery, observing and assisting the senior midwives in a variety of locations.

Strengths and Limitations of Vocational Training

Vocational programs focus exclusively on the occupation they are designed to teach, offering a balance of practical skills and theoretical knowledge oriented towards real-world application. Vocational training mixes experiential and didactic educational methods and concentrates on preparing students for the practical requirements of their jobs. Vocational curricula are formalized; in order to insure the production of midwives of a measurable and uniform minimum standard these curricula are evaluated for content and quality by an outside body. This system assures employers and clients that a midwife has knowledge of physiology, biology, psychology, and specified midwifery skills. Unlike apprenticeship, the quality of the learning is not based solely on the abilities of one or a limited number of mentors.

Generally speaking, vocational training in high-income countries carries less social status than university education.¹⁰ In countries where midwifery education is moving (or has moved) to universities, vocationally trained midwives often suffer from the stereotype of the “second-class citizen.” Some have criticized vocational training in the UK for paying more attention to the organizational need for cheap labor than to the educational and developmental needs of the student midwives. These criticisms and the desire of midwives for more autonomy have been a driving force for moving midwifery education into higher education in the UK.

Case Study: Vocational Training in the Netherlands

History and Current Status

In the Netherlands midwifery education is highly centralized. The annual intake of student midwives at the three Colleges of Midwifery is deliberately limited, in order to guarantee every trained midwife a job (van Teijlingen 1994, p. 146). In the late 1990s approximately 1000 applicants applied for the combined 120 openings for first year students (Rooks 1997, p. 14). Five years of secondary schooling are required for entry to midwifery school. A university degree is not required, nor is nursing training (McKay 1993). In fact, having a nursing background on one's application form is seen as a disadvantage for entry into midwifery. Until recently, the training program took three years. In 1994, a fourth year was added. Dutch midwives are trained to provide antenatal and postnatal care, to attend normal low-risk deliveries in home and hospital settings, and to identify high-risk women during all stages of pregnancy and childbirth.

Obstetricians served as directors of the three midwifery schools until the early 1990s; today the directors of all three schools are midwives (Hoope-Bender 1997). The midwifery schools were established in the late 19th and early 20th century and are regulated and accredited by Acts of Parliament. There is a Midwifery Schools Act and a separate Act Governing Midwifery Examinations (Committee for the Revision of the Curriculum of Midwifery Schools in the Netherlands 1991, p. 1). All three schools are state-funded through the Ministry of Welfare, Health, and Sport. A supervisory agency of the Ministry of Welfare, Health, and Sport oversees the educational institutions and ensures that they comply with the regulations. In this capacity, the Supervisory Agency maintains the quality of education, and can issue warnings if necessary (Committee for the Revision of the Curriculum of Midwifery Schools in the Netherlands 1991, p. 16). Midwifery students spend about half of their education as an apprentice with a qualified midwife. The rest of their education consists of classroom, bedside, and theatre teaching.

The first year curriculum focuses on the normal physiological course of pregnancy, delivery and post-partum period. In the second year, the focus shifts to obstetric pathology and related fields. In the third and fourth year students work on integrating the theoretical and practical knowledge acquired in the previous two years. In addition, student midwives learn how to conduct scientific research (including a course in statistics), how to run a midwifery practice, and how to determine primary obstetric management. The curriculum stresses the importance of skills training, in the form of (1) diagnostic skills; (2) therapeutic skills; (3) skills needed to manage pregnancies; (4) laboratory skills; and (5) social skills. Dutch midwives' education is funded by the state.

Midwifery students are socialized into the norms and values of Dutch professionals in general and those of midwives in particular. The latter consist of principles and tenets such as "labor and birth are normal physiologic processes;" "home is a safe place to have a baby;" "midwifery is a psycho-social as well as medical service;" "selection of high-risk mothers and babies is usually possible during pregnancy, labor and in the post-partum period;" and

“midwives are bound to know more about normal pregnancy and delivery than doctors, because the latter spend so much time learning about pathology.”

Recent Developments in Dutch Vocational Training

The transnational trend toward higher education is being felt in the Netherlands, where some have called for moving midwifery education into the university. But there are no signs of this happening in the near future, in large part because both the state and Dutch midwives have very consciously resisted this trend. Midwives feel strongly that their vocational model works to preserve midwifery as separate, woman-centered, and unique. They do not want their profession “polluted” or “compromised” by being moved to the university and mixed with other health professions or sciences. They have, however, worked to create streamlined mechanisms through which midwives who want college degrees can easily obtain them.

Some see the recent European Union directives -- the EU has mandated that midwife training in all member nations must be comparable, facilitating mobility of midwives between countries -- as a threat to the Dutch midwifery profession. However, there is no evidence that midwives trained in other EU countries will establish practice in the Netherlands. One of the main obstacles for those who wish to practice midwifery in the Netherlands is the requirement that midwives speak Dutch in order to be able to communicate with pregnant women. The Dutch language is not widely spoken and there are few places where it is taught.

Vocational Training in the UK, the US, and Canada

Vocational training remained an important part of British midwifery education until the early 1990s. The London Obstetrical Society introduced the first formal training course and diploma for midwives in 1872. The Midwives' Institute campaigned throughout the latter period of the 19th Century for state registration and formal education (Sandall 1996). The result was the 1902 Midwives' Act. All ‘bona fide’ practicing midwives were permitted to receive state registration, and all new midwives were required to undertake formal vocational training. Interestingly, the length of the course did not seem to have been based on educational principles, but rather on financial requirements. A “three month course, it was thought, was all that many women would be able to afford” (Carter and Duriez 1986. p. 48).

Twentieth-century midwifery education in the UK continued to be driven by pragmatism. Until 1916, there was a single pathway into midwifery for nurses and non-nurses. Gradually midwifery training increased in length. By 1938 it took two years to become a midwife, and it was not until the passage of the Midwives' Act of 1936 that “unqualified” women were forbidden from attending women in childbirth, and only then once a qualified midwife was locally posted.

With the introduction of the NHS in 1948 there was a shift away from direct-entry and toward nursing-entry. The midwifery curriculum was changed to reflect the changing nature of practice: the self-employed midwife working in the community was giving way to the salaried midwife working in both the hospital and the community. Many nurses studied midwifery solely to achieve promotion to a higher salary level within nursing and never actually practiced as midwives. Indeed, promotion prospects for midwives were always poorer for those without a

nursing qualification. By the early 1960s, only 5% of student midwives passed through the direct-entry route, and many direct-entry programs were phased out. By 1985, only one direct-entry program remained active (Radford and Thompson 1988).¹¹

Vocational midwifery training for registered general nurses was twelve months until 1981. In that year the training period was increased to eighteen months (three years for non-nurses) in response to European Community midwifery directives (Robinson 1991, p. 304). The extra six months were to be “used to develop clinical skills and to give opportunities for the midwife to become confident” (Stewart 1981). In these vocational programs, students spent 50% of their time in clinical practice (50% community and 50% hospital) and 50% in school.

In recent years, midwives and those hoping to expand the autonomy of midwifery have criticized vocational midwifery training in NHS schools (Sandall 1996). They saw the educational needs of student midwives being sacrificed to the need of the NHS for cheap student labor and they complained that educational programs were too nursing oriented and socialized student midwives to accept subordination to the medical model and to the requirements of a medically dominated, hierarchical NHS. Both midwifery educators and students were dissatisfied with current educational preparation. They felt they were not preparing midwives for the kind of independent autonomous practice being advocated in UK maternity policy initiatives (House of Commons 1992). British vocational training was also criticized for discouraging critical enquiry in favor of an emphasis on following standing orders, for a lack of awareness of the increasing evidence on midwifery practice, and for its disdain for the contribution of other disciplines to midwifery education (Flint 1990, RCM 1987).

In the US, vocational midwifery training, like apprenticeship, is being developed and preserved only by direct-entry midwives. Some nurse-midwifery educators, stressing the value of university-affiliated programs, dismiss vocational programs as “trade schools” that represent an outdated educational model. Nevertheless, for American direct-entry midwives vocational programs are proving to be viable means of expanding educational opportunities beyond the numerical limitations of one-on-one apprenticeship while still preserving their unique body of knowledge about out-of-hospital pregnancy and birth. Because such schools are usually private and not university-affiliated, their owners and teachers can codify and teach this body of midwifery knowledge, free of the “hegemonic influence of technomedicine.” They can offer highly tailored, focused, and formalized combinations of apprenticeship and didactic training that meet established standards without sacrificing their philosophy. Unlike vocational programs in the UK, these US vocational schools put great emphasis on the development of a sense of autonomy and of critical thinking and decision-making skills. They usually offer clinical training *and* courses in women’s studies, midwifery philosophy, and the practical side of how to run a midwifery business. Some vocational midwifery schools offer extensive additional training in herbs, homeopathy, and/or other forms of alternative medicine. Most educators in such schools seek to imbue their students with both technical knowledge and with an ideology that stresses the importance of honoring and respecting the sacredness of women’s bodies and the spiritual dimensions of pregnancy and birth. And, unlike one-on-one apprenticeships, students in these schools can interact with and learn from each other and

have exposure to several primary faculty members who are in teaching positions because of their demonstrated expertise.

The Midwifery Education and Accreditation Council (MEAC), founded in 1991, evaluates these formal direct-entry vocational programs and has accredited eight of them to date, including the Seattle Midwifery School in Washington state, Maternidad La Luz in El Paso, Texas, the Utah College of Midwifery, and Birthingway Midwifery School in Oregon. A few of these MEAC-accredited vocational schools have developed distance-learning programs. Most are three-year programs; some require a year of basic science prerequisites. Their tuition fees range from \$8000 to \$22,000.¹²

In Canada, a short-lived vocational School of Midwifery located in Vancouver, B.C. took in two classes of midwives in 1984 and 1985. The school was loosely affiliated with Seattle Midwifery School and accredited by Washington State. Upon completing the Washington state's licensing examination and applying for a license, the successful midwife candidate gained the title "Licensed Midwife" (Rice 1997). The former British colony of Newfoundland initiated a vocational training program for midwives in the early 1920s in the capital city of St. John's. Graduate midwives found work in outlying clinics, in one of the eighteen small (30-50 bed) cottage hospitals strategically located around the island of Newfoundland, or in one of the few parallel institutions located in the even more isolated northern region of Labrador. Formal union with mainland Canada in 1949, where midwifery had all but become defunct, led to a demise of vocational education for midwives in the renamed eastern provinces of Newfoundland and Labrador (Benoit 1989b, Benoit 1991).

On the European continent, vocational education still exists in Belgium, where vocational colleges offer midwifery training. Students study for three years, and in each year the proportion of apprenticeship increases, from 6 out of 30 weeks in the first year to 18 out of 30 weeks in the third year. In addition, Belgian students can opt to do nursing training first (at the same vocational colleges) and subsequently complete their midwifery training in two years.

UNIVERSITY EDUCATION

US-born Joanne Bostick had always known that when she grew up she wanted to be involved in the health care professions, but as a college graduate at the age of 22, she still had not been able to figure out which one. Sitting in a medical library in 1991, she leafed through a booklet listing all the professions in the healing arts until she came across the title "nurse-midwife." Chills ran down her spine as the realization swept over her that this was what she was to become. She had always been fascinated by babies and by birth, but she had never wanted to be a doctor, and until now she had not even known that midwifery was a professional option. Further investigation taught her that her potential educational pathways were many. Nursing was a prerequisite, but there were various ways to fulfill the nursing requirement. Not wanting to spend years of her life learning nursing, she chose the program at the University of California San Francisco that would put her through nursing training in one year and move her straight into two years of midwifery education, from which she would graduate with a Master's degree. She did not enjoy that one year of nursing training, but she

knew she was gaining valuable skills so she held on. When she finally moved into the midwifery part of the program, she felt that she had come home. She loved everything about being a midwife, even the late-night work. The prerequisite basic science courses she had taken to augment her liberal arts education had not proved to be too much of a stretch, and now she was thrilled to be engaged in hands-on application of many aspects of the sciences she had studied, from taking throat cultures to doing Pap smears as part of her training in well-woman primary health care. She enjoyed her academic classes, during which she could engage in stimulating discussions of the various case studies she and her classmates were always reading. But she was happiest when she was learning hands-on midwifery skills, whether she was practising pelvic exams and diaphragm fitting on her fellow students or learning speculum insertion on the plastic dummies that lined shelves of their laboratory.

Once she began attending laboring women, she sometimes found herself torn between wanting to stay at the mother's side, gazing into her eyes and giving her emotional and verbal support, and wishing to be at the other end, watching every detail of how her preceptor was handling the birth. Soon she felt quite comfortable catching the baby, handing it to the mother, and supporting them to establish breastfeeding, as long as her supervisor was near. But the more she studied birth pathologies, learning academically about everything that can go wrong, the more nervous and tentative she found herself becoming. Her tension came to a head five months into her midwifery program during one awful week when she was faced in rapid succession with a mother who hemorrhaged massively and nearly died and the sudden deaths of two babies during what seemed like normal births. Terrified by these experiences, she went through a period of wanting to apply technological interventions at every birth because they made her feel safe. Understanding her fear, her supervisor consistently encouraged her to regain her trust in birth, reminding her that most births turn out fine without intervention, and urging her to empower women with back-rubs, hugs, and hands-on support instead of being so quick to intervene. Over time the encouragement worked, and Joanne developed special expertise in helping women give birth without perineal tears; she was proud when she managed to graduate without ever having cut an episiotomy. She was also proud of her mastery of sophisticated technologies like electronic fetal monitoring and vacuum extraction, although she vowed to use them as rarely as possible, and to treat all her low-risk clients according to the non-interventive principles of the midwifery model of care she had been taught. During her first years of practice in a tertiary care center, she met with resistance from both physicians and the older nurses, and often was forced to use more interventions than she wanted in order to keep her job. But over time, as she gained her colleagues' respect and trust, she was increasingly able to make her practice match her ideals.

History and Characteristics of University Training

Mid- to late-20th century Europe and North America are marked by a new style of midwifery knowledge--academic--and a new site for imparting it--the university. Optimists such as Bell (1973) viewed the emerging "post-industrial" society of the second half of the twentieth century as nothing short of revolutionary because of its magical mix of technical efficiency and capital accumulation. According to Bell, the prime movers of post-industrial society are no

longer capitalists but rather “knowledge workers” trained in academic institutions distinguished by their latest technological developments and scientific advances in knowledge production. Midwives, along with an assortment of other health providers, eventually found themselves drawn to the post-industrial academy for the training and socialization of new recruits to their profession.

Canada also took this route, although comparatively late in its development. In many high income countries where midwifery survives the neophyte's educational preparation follows this route: secondary school graduation, application to a university-level direct entry or nurse-midwifery program of three to five years duration and, in some countries, advanced education at the Masters level.

Strengths and Limitations of University Education

University-based training fits well with the values, beliefs, and status consciousness of mainstream society; it is often thought of as the minimum training required for service occupations. As a socially valued educational pathway, it affords social recognition and prestige, easy access to government loans, and straightforward routes to advanced degrees. Advanced professional degrees empower their recipients to teach, to start new programs, to effect changes in legislation, and to carry out research on client needs and various aspects of midwifery care. In short, academic credentials give midwives (and other professionals) “cultural capital” helping them to negotiate attractive work options and to compete on an equal standing with other similarly credentialed health professionals (Benoit 1991).

Presence on a university campus offers the distinct advantage of well-equipped facilities and a variety of educational and research opportunities. Moreover, academic institutions and university hospitals are often the sites of development for innovative knowledge and technologies about childbearing that midwives can use. As sites for creative developments in education, universities have developed sophisticated distance learning technologies and have advanced educational theories and methods. Distance learning offers some of the advantages of apprenticeship allowing a student to remain grounded in her community and to gain clinical experience with a preceptor in her local hospital.

Students trained in the large teaching hospitals associated with universities develop expertise in dealing with individuals of diverse sociocultural and economic backgrounds, a wide range of birth complications and unusual health conditions, and the “latest and newest” in medical technologies (Benoit 1991). Educators work with students to help them develop good risk assessment skills, competence in giving culturally sensitive care, a critical sense of the value of technology, and good research skills that can enable them to sift the data for themselves.

In the US, university education is paid for by the individual and can be prohibitively expensive, costing up to \$100,000. Many US students obtain scholarships or government loans to help with this financial burden. In Canada, the average university student pays tuition for only 20-25% of her education. In the UK midwifery is paid for by the state. Sources of funding are just one point of variation in university education. Programs also vary in the

degree of medicalization of the curriculum, the distance placed between students and the lifeworlds of the women they serve, and the view of midwifery advocated.

University programs are particularly susceptible to the risk of divorcing that the education of health practitioners from practice. Hunt (1996, p. 31) found that practicing midwives feel the danger of becoming more academically than clinically focused. Can those with more elaborate theoretical education translate this theoretical knowledge into practice? Some commentators are convinced that university education has great potential to improve clinical care (Alexander 1994, p. 25), while others question this assumption (Jackson 1993, p. 275).

In all the countries we study here the university training of midwives is carried out in institutions that are highly medicalized, patriarchal, and technocratic. Midwives in these institutions are often required to intervene in birth in ways contrary to both scientific evidence and the non-interventive principles of midwifery care in order to successfully graduate.

Case Study: University Training in Select Canadian Provinces

History and Characteristics

Until the late 1980s, three university nursing schools -- located in Alberta, Nova Scotia, and Newfoundland -- offered nurses additional courses in midwifery training under the rubric of an "Outpost Nursing" program. These academic programs were focused on placing nursing in northern and remote communities of the respective provinces (Benoit 1991).

In autumn 1993, a full-fledged direct-entry university program for training midwives began operation in three university sites in Ontario -- McMaster, Ryerson Polytechnic, and Laurentian Universities. In September 1998, the Ontario government renewed the five-year initial pilot funding. Initially the program required the student to complete three years, with each academic year covering eleven months, after which time the successful candidate was awarded a Bachelor of Health Sciences degree. The program is now shifting to a four-year degree requirement, with eight-month academic years (in line with other university programs). At Ryerson, most midwifery students study part-time, allowing them to work part-time to support their midwifery studies. At the bilingual (French and English) Laurentian program and the McMaster program full-time study is the norm (Shroff 1996/97). Tuitions range from 3500-5000 Canadian dollars for each academic year; these fees may increase substantially because of recent deregulation of university student tuition fees in Ontario. As in the Netherlands, demand for student places in the three Ontario midwifery programs seriously exceeds supply.

In all three Ontario university programs, a "problem-based learning" model is employed, small group discussions are commonplace, and many of the classes are taught to the students at a distance with the aid of special distance learning technologies. Preceptorship is an important part of all three programs. From their first day of study students are required to follow birthing clients throughout their reproductive cycles. In fact, it is fair to say that the Ontario midwifery educational model combines apprenticeship with university education. The defining principle of this model of educating midwives is, "the midwife follows the woman."

This means that the midwife is trained to practice her profession in the woman's chosen setting -- home, clinic, or hospital -- and will accompany the woman wherever she may need to go. While attending women in their own homes, the midwife recruit observes the wide variety of home conditions, family structures, and cultural practices of birthing women. This hands-on knowledge helps the student midwife to acquire in-depth knowledge of her birthing client as someone with an intricate history who is embedded in a complex web of social relations.

In spite of its use of a combination of educational models, the university training program in Canada has its drawbacks. Students are often in their late teens or early twenties, savvy in intellectual ways of knowing, but with little in the way of life experience. The Ontario midwifery programs *do* select students on the basis of their expressed "calling" to be a midwife, but the ultimate criterion for admission is the ability to survive in a highly stressful academic setting (Sharpe 1997). The Ontario educational model also tends to privilege students along race, class, and ethnic lines. Midwifery students have to pay hefty tuition fees *and* need access to a vehicle to get to births, a pager and -- if young mothers themselves -- money for a baby sitter. Compounding these structural forms of exclusion, it took some time for Ontario academic midwifery programs to develop alternative routes to licensure for midwives trained in other countries (Nestel 1996/97).

Recent Developments in Midwifery Training in Canada

In 1995, in response to the need for a way to incorporate foreign-trained midwives into the Canadian system, the College of Midwives of Ontario piloted a Prior Learning Assessment process for midwives trained outside the province. This program, now called Prior Learning and Experience Assessment (PLEA), assesses midwives' theoretical and clinical skills and offers resources, opportunities to be in contact with midwifery practices, an orientation to midwifery in Ontario, and clinical skills workshops. Midwife graduates from the PLEA Program now account for 23% of all registered midwives in Ontario. Potential applicants learn about this program from advertisements in Canadian newspapers. The Ontario government's Ministry of Citizenship funded start-up of the program and now works with the College to present information about it to other professions in Canada. As of 1999, Ontario midwifery has a greater proportion of registered professionals who were trained in other countries than any other regulated health profession in Canada. This group of registered midwives is critical to the development of midwifery services and the new profession of midwifery in Ontario. Many are experienced practitioners with valuable skills and leadership capability, and contribute to developing a more diverse population of midwives, who better reflect the population of the province. More than 80% have immigrated from other countries, about 40% are women of color and about 80% speak languages other than English (Holliday Tyson, personal communication, 13 January 2000).

In summer of 1999 the provincial government of Quebec approved the establishment of an academic training program for midwives in that province. The program started up in fall 1999 with 16 students. Offered at the Health Sciences Faculty of the University du Quebec a

Trois-Rivieres (UQTR), it is designed as a four-year baccalaureate program (personal communication, Helene Vadeboncoeur, 12 December 1999).

There is always the danger that midwifery training will be co-opted by university education; this has not happened in Ontario because the educational model used there balances students' training in both home and hospital settings, allowing them to see both a low-tech non-invasive form of midwifery practice and its more high-tech counterpart.

The Development of University and Direct-Entry Education in the US and the UK

The UK

In the 1990s, midwifery education in the UK was dominated by three trends: 1) movement into higher education, (2) the creation of an internal market in the purchasing of nursing and midwifery education; and (3) a resurrection of direct-entry midwifery programs. The move of midwifery education was accompanied by the opening of a large number of new direct-entry programs that may eventually result in more psychological and actual autonomy for British midwives.

During the 1980s, new education proposals in the UK moved nursing training into higher education and redefined midwifery as a nursing specialty. The midwifery profession reacted by defending its distinct identity (UKCC 1986). The Association of Radical Midwives (ARM 1986) and the Royal College of Midwives (RCM 1987) produced separate reports emphasizing the importance of an autonomous role for midwives trained by a direct-entry route. This resurgence of interest in direct-entry training resulted from three major concerns: (1) the desire by midwives to establish midwifery as an autonomous profession separate from nursing; (2) government concerns that a population decrease in 18-year-olds would likely result in a decrease in entrants to midwifery; (3) midwifery concerns that the majority of nurses who trained to be midwives did not practice midwifery.

Following a change in educational policy in the UK, schools began to compete for NHS training contracts (Department of Health 1989). By the mid 1990s, midwifery education in Britain had moved into the university sector and had begun to develop/regain its own educational identity separate from nursing. In addition to the standard midwifery diploma or degree, some universities began to offer postgraduate programs in midwifery. Merging with institutions of higher education presented opportunities for extending the knowledge base of midwifery and for increasing academic rigor (Roch 1993). Creating postgraduate courses, establishing an academic research base, and creating chairs in midwifery helped to raise the status of midwifery as an academic discipline within the university setting, but did little to change the working conditions of midwives vis-à-vis physicians.

"Internal markets" were introduced to the NHS by a conservative government. This management innovation was intended to control costs by encouraging competition between different service-providers within the NHS. The competitive market has had some questionable consequences for midwifery education. Because contracts to train midwifery

students must be renewed every five years, universities have no incentive to make long-term investments in infrastructure. The consortiums that oversee these five-year educational contracts are dominated by NHS managers whose main concern is to have a midwifery workforce trained in as short a time as possible at as low a cost as possible. It is likely that without the EU midwifery training regulations, midwifery would be suffering the downgrading that nursing education is currently going through in the UK, with a revision of educational aims from the education of a reflexive critical practitioner (UKCC 1986) to a worker fit for a specific purpose (UKCC 1999).

Around 1600 students enter midwifery training each year in England; the overwhelming majority (99%) of midwifery students are female (ENB 1999). In 1999, 46% were on a direct-entry route and the remainder were already qualified nurses. This is a dramatic increase in direct entry places since the 1980's. All students are either registered for a diploma or degree program. Forty-five percent of students were registered in a degree (i.e., baccalaureate) program, with the remainder registered for a diploma (non-baccalaureate). Funding inequities remained between students registered in diploma and degree programs. Students registered for a degree are treated like other undergraduates in the UK. Their fees are paid, but they have to take out interest-free loans to pay for their living expenses. Students registered for a diploma are funded through the NHS and have their fees paid and receive a bursary of around £6,000 a year. Not surprisingly, some students are forced to drop out of degree programs because of financial difficulties, a problem that disproportionately affects direct-entry students who are older and often have childcare commitments.

Each university and the National Board for each country accredit all programs in the UK. The Royal College of Midwives plays no part in educational accreditation, its role being that of a professional organization and trade union. All programs fulfill the EU requirements, and students spend 50% of their time in clinical practice in the NHS. Although all programs include hospital and community placements (community and hospital care is usually integrated in the UK), the quality of the placement depends on the provision of care provided by the "linked" maternity provider. One student may experience "caseload midwifery" in a group practice with plenty of home birth experience; another may find herself working in a regional high tech unit. Further, some students rotate between several maternity providers during their training and others do not. The UKCC commission recognizes this variability in education, and has suggested that NHS providers take on more responsibility for clinical training (UKCC 1999).

Thus, we find both continuity and change. In some places lecturers in vocational courses simply moved into the university system and the organization of clinical placements changed very little. Other universities introduced shared multidisciplinary learning, a problem-based learning curriculum and teaching from "pure subject" specialists, rather than generic midwifery lecturers. In addition, many qualified midwives are "topping up" their academic qualifications to first degree and Master's level through part-time education programs. Student midwives enter training with high expectations, and their lecturers (who still work clinically) often encourage their students to think critically about maternity care. But during their training and subsequent employment in the NHS, midwifery students continue to encounter a medically dominated hierarchy, cost constraints, staff shortages, policies that are not family-friendly, and unequal opportunities. After graduation UK midwives have little choice about

where they will work, since almost all maternity care is provided by the NHS and private health insurance does not cover normal pregnancy and birth. In the mid-1990s the Royal College of Midwives further limited midwives' options by withdrawing malpractice insurance coverage from midwives who are self-employed; in the late 1990s only a handful of independent midwives remained in practice.

On the whole the move into higher education has improved the lot of midwives: the number of direct entry programs continues to grow, and there is government commitment to a 100% midwifery education at the degree level. Midwifery education is now free from nursing and medical dominance, and it has found a space for students and staff to develop midwifery theory and practice and to carry out postgraduate work and midwifery-driven research. At the same time, the clinical experience of students often incorporates the same over-medicalized elements found in vocational training. In some cases, the geographical separation of the university and the clinical sites has widened the gap between midwife and medical approaches to birth; in these situations university educators have no power to influence the quality of clinical experience and mentorship a student receives.

The US

For American midwives, university training is by far the most common educational pathway (Roberts 1995; Rooks 1997). There are 48 nurse-midwifery educational programs; all are either university-based or are distance learning programs that are university-affiliated. All but one require prior nursing education and licensure¹³ and all are accredited by the American College of Nurse-Midwives' Division of Accreditation (DOA). This latter fact is especially significant, as in few other countries does the professional midwifery association hold sole accrediting power; it can thereby assure the uniform quality and content of every program.

American nurse-midwives have been an important force in the transnational trend toward university-based midwifery education. As of 1999, all 48 nurse-midwifery programs required the Bachelor's degree for entry (see endnote 1). The Master's degree is not required for practice; nevertheless, over 70% of nurse-midwives have Master's degrees. It is important to keep in mind that nurse-midwives in the US attend only 7% of all births; one of their strategies for establishing nurse-midwifery as a respected profession has long been to obtain higher degrees both for the credibility they bring and for the ability they bestow to carry out much-needed research on the effects of nurse-midwifery care and to assure that midwifery practice remains evidence-based.

All nurse-midwifery educational programs are designed to teach ACNM's core competencies, which have been expanded to include not only care for women during pregnancy, birth, and the postpartum period, but also well-woman gynecological care across the female life cycle. All equip their students to work in health care institutions (hospitals, birth centers, and managed care organizations) and sometimes to manage private practices. The majority of faculty in these programs must be nurse-midwives; experts in a given area, including doctors and nurse practitioners, can also hold teaching positions. Every program includes specific criteria for entrance, structured learning objectives, formalized didactic instruction, clinical experience with more than one clinical instructor, and involvement of several faculty members in judgment about the student's ability to provide beginning level

midwifery care. Clinical supervision is always the responsibility of midwives. In-hospital training is the norm. The availability and depth of both didactic teaching about and clinical experience in out-of-hospital birth can vary considerably from program to program. Unlike the Ontario system, out-of-hospital clinical experience is not required for US certification or for program accreditation, and is unavailable in most nurse-midwifery programs. Many student nurse-midwives are disturbed by their complete lack of out-of-hospital experience (Davis-Floyd 1998a, 1998b), as they are aware that the location of birth has a major influence on both caregivers and the kind of care they provide (see chapter 1).

Tuition in US university-based programs ranges widely. Some programs have tuitions of under \$20,000 for the entire program, and some cost over \$100,000. Most common are tuitions in the \$70,000 range. Some students finance their education with government loans; others avoid incurring debt by participating in work-study programs or working part-time, often as nurses, and applying for the many available scholarships and grants. Some government loans require repayment not with money but with time practicing in underserved communities.

The transnational trend toward direct-entry midwifery education is also having its effect in the US: the American College of Nurse-Midwives now offers direct-entry certification and has accredited one direct-entry program (see endnote 13). ACNM's move into direct-entry has been motivated by multiple factors, among them a desire for increased autonomy for midwives and the wish to shorten the length of time required for midwifery education.¹⁴ A lengthy passage through nursing can derail students' lives and career goals. During her interviews with 45 nurse-midwifery students, carried out between 1997 and 1999, Davis-Floyd learned that there is a strong ethic in American nursing that all midwifery candidates should practice as labor and delivery nurses before entering midwifery programs. Such practice generally ensures a dual socialization into a nursing identity and a medicalized approach to birth. Many potential midwifery students thus feel pressured to undergo two years or more of nursing training and several years of clinical practice. Much less of this sort of pressure is experienced by students who enter the fast-track programs at Yale, Columbia, and UCSF, which are designed to make their student nurses solely so that they can become midwives; in such programs a briefer (one year) passage through nursing is the norm. The type of socialization a student undergoes during nursing training is another powerful motivator to avoid it; most of the 45 nurse-midwifery students Davis-Floyd interviewed strongly resented being socialized as nurses into an attitude of subordination to physicians that they must overcome once they begin clinical study as midwives.

A major trend in the US is toward the creation of innovative distance learning educational options designed to make midwifery education more accessible to a wider spectrum of women. This transnational trend mirrors a similar trend in education in general, stimulated by the new availability of distance learning computer technologies, including the Internet. Nurse-midwives in the US have taken full advantage of these technologies: their largest educational program, the Community-based Nurse-Midwifery Educational Program (CNEP), allows students to remain at home studying didactics online and learning clinical skills from preceptors in their communities.¹⁵ And several formal direct-entry programs in the US are moving toward a distance-learning format.¹⁶

A criticism sometimes leveled at university education for midwives is that its standardization stifles individual creativity. Davis-Floyd has not found this criticism to apply to the nurse-midwifery students she has interviewed, who are strongly encouraged by their teachers to think “out of the box.” Nurse-midwifery educators have long been leaders in educational innovation, and they continue to develop and refine creative and interactive learning and teaching methodologies (Johnson and Fullerton 1998).

Tensions within American nurse-midwifery education -- certain to be more intense than those in countries with lower intervention rates -- center around the large gap between the evidence-based focus of midwifery educators and the tradition-based approach of most obstetricians. Student nurse-midwives, steeped in the evidence, frequently experience distress over the unnecessary interventions they are regularly expected to perform. And they often must spend more time learning to deal with hospital procedures and protocols than with birthing women. The level of medicalization of nurse-midwifery education varies from program to program. Some university-based programs are highly humanistic and woman-centered in their approach; others are far more oriented toward technomedicine. This technomedical orientation in some programs applies not just to education but to socialization as well: a few nurse-midwifery students describe intense hazing and criticism, of the kind that obstetrical residents undergo, throughout their educational process. These students report extreme difficulty in reconciling the ways in which they were trained with the ways in which they are expected to practice, suggesting that how a midwife is trained will have a major effect on what kind of practitioner she becomes. According to Davis-Floyd’s 45 nurse-midwifery student interviewees, some of the most holistic nurse-midwifery programs, both in education and socialization, are the distance-learning programs, which allow their students to study didactics on computer while preceptoring/apprenticing with one or more nurse-midwives in their communities. These programs are not located on a university campus, but do have university affiliations.¹⁷

CONCLUSION

We began this chapter with a simple question: How should aspiring midwives be prepared for their role as caregivers? Our survey of the existing models of education provides no definitive answers. Midwifery students have been prepared in many ways, and there is no single best way to “design midwives.” Our survey has shown that the knowledge base and socialization of midwives are arbitrary; each is shaped by the larger culture and structure of society. We have also seen the degree of professional autonomy midwives achieve is strongly related to the way they are educated. The recent trend toward higher education has raised the status of midwives, granting them more authority vis-à-vis medicine and nursing. Academic education can enhance midwives’ autonomy, but it can also socialize them into accepting hegemonic models and practices.

Despite their marginalized status, apprenticeship and vocationally trained midwives in the US are far more autonomous than university-trained midwives. This is a result of their education and the fact that they practice outside of hospitals and thus are not subject to

institutional hierarchies and restraints. Vocationally trained midwives in the Netherlands also emerge from our comparison as relatively autonomous; their vocational training gives them a distinct identity and place in the division of labor.

In the final analysis, it is how midwives practice that matters most. Even when midwives are educated to adopt a woman-centered philosophy of care, they often find themselves unable to implement such a model inside the work world of techno-medicine. Midwives whose education did not include experience with out-of-hospital birth find it especially difficult to think of and to treat pregnancy and birth as normal. It is no accident that American nurse-midwives, who are trained to practice almost exclusively in hospitals, employ routine interventions as frequently as physicians (Curtin 1999, p. 349). We believe that systems that provide training environments where midwives can function fluidly in both home and hospital -- like those of the Netherlands and Canada -- are more beneficial to women than hospital-dominated systems like those found in the UK and the US.¹⁸

Our survey indicates a move away from nursing as a required part of the education of midwives. In the Netherlands, midwifery education has always been direct-entry. In the UK, it is moving in that direction. In Canada, it was set up that way from the start. And in the US, nurse-midwives themselves have opened their College to direct-entry members, have created one university-based direct-entry program, and are working on more. Why is it so important to these midwives to maintain their identity as such? Many women experience a spiritual calling to midwifery, viewing it as not just a profession but a sacred trust. Increasingly, midwives tend to agree on the unique nature of midwifery and its strong humanistic significance for today's women. This commitment to the preservation of midwifery as a crucial alternative to obstetrics makes midwives unwilling to dilute their identity by coding midwifery as an advanced form of nursing.

In this new millennium, we expect to find midwives around the world working to develop philosophies of care that are evidence-based and woman-centered and that encourage midwives' independence of mind, educational programs that effectively blend theory and practice in the full spectrum of settings, and work settings that encompass that full spectrum. Such developments will assist midwives to become fully respected as practitioners within their country's health care system and to more effectively do what they exist to do: give childbearing women the best possible care.

Endnotes

1. This chapter focuses on midwives in high-income countries only. In no way are we suggesting that similar circumstances exist for midwives in low income countries where, for a variety of reasons that we are not able to take up here, midwives' education and socialization are organized differently.
2. The American College of Nurse-Midwives' Division of Accreditation has set standards that allow for pre-baccalaureate programs, but none have been proposed, so effectively the baccalaureate is a requirement for entry.
3. The correspondence we point to here between nursing training as a prerequisite to midwifery training and midwives' lack of autonomy does not hold for all countries. Swedish nurse-midwives, for

example, enjoy extensive autonomy. Important factors influencing midwives' autonomy or lack thereof include the organization of medicine in a given country and its form of health care funding. Out-of-hospital practice also contributes: the fact that Dutch and Canadian midwives practice not only in hospitals but also in homes facilitates their independence—but then again, part of why they have been able to preserve home birth is because they have also preserved their autonomy. It is important to note that nurses too are struggling for increased autonomy and for working partnerships and collaboration with physicians. But they are having far more difficulty achieving these than midwives, as in most cases they have neither prescriptive privileges nor decision-making authority. As one nurse put it in an interview with Davis-Floyd, “We are taught to think of ourselves as autonomous practitioners working on an equal basis with the docs. The problem is that nobody teaches that to them.”

4. The full list of requirements for CPM certification is available at www.mana.org.
5. Many non-nurse midwives in the US are not licensed, registered, or certified and thus cannot be counted, so exact numbers cannot be provided here. The Midwives' Alliance of North America, which is the organization that represents American home birth midwives, has over 1000 members (one third of whom are nurse-midwives). It is estimated that there are approximately 3000 practising direct-entry midwives in the US; cumulatively, they attend around 1% of American births.
6. An example comes from the high-tech computer industry, in which many young people without college degrees are receiving on-the-job training from mentors within a given company in specialized computer skills not taught in universities. It is worth noting that neither Bill Gates, founder of Microsoft, nor Steve Jobs, cofounder of Apple Computers, graduated from college.
7. An example of the eclectic form many contemporary apprenticeships take is provided by well-known childbirth educator Nancy Wainer Cohen, author of *Silent Knife* (1986), who underwent two years of apprenticeship training with a midwife in Boston where she lives, interspersed with periodic trips to Michigan for weeks at a time to apprentice with midwife Valerie El Halta. Toward the end of this process, she spent 8 weeks in El Paso, Texas at Casa de Nacimiento and two weeks at Victoria Jubilee Hospital in Jamaica under the tutelage of Shari Daniels; in both places, she attended many births in short order and learned to deal with a wide range of complications.
8. This new convergence between apprenticeship and more formalized educational models is intensifying. Two private vocational programs, the Utah School of Midwifery and the Midwifery Institute of California, have both developed distance-learning apprenticeship programs in modules that can be adapted for use by mentors and apprentices anywhere in the country. The modular form ensures that learning objectives can be formally set, and that what the apprentice learns can be tracked and evaluated, so these two have become the first apprenticeship programs to receive formal accreditation from MANA's associate the Midwifery Education and Accreditation Council (MEAC). MEAC has applied for formal recognition by the US Department of Education. If its application is successful, then all graduates of MEAC-accredited programs, including the two MEAC-accredited apprenticeship programs, will meet the international definition of a midwife (“one who graduates from a program duly recognized in the country”) and will be eligible to apply for government loans to complete their educations.
9. Adapted from Benoit 1992, p. 1-2.
10. On the other hand, vocational education, at least for women in low income countries but also for less advantaged women in high income countries, is likely to be much less expensive than university-based educational programs for educating midwives, thus allowing more women greater access to

midwifery training. However, in countries where the state finances education (as in the UK and the Netherlands, for example), these financial differences are likely to be less acute.

11. Derby was the only place in Britain that had continued to offer direct-entry midwifery training throughout the 1970s and 1980s.

12. Unique among such programs is the Miami-Dade Community College in Miami, Florida, which offers a three-year curriculum (opened in 1996) leading to an Associate in Science degree in midwifery. In addition to didactic training in the basic sciences and humanities, the program includes a strong apprenticeship component. Additionally, students have access to high-tech equipment and a variety of clinical experiences in hospitals, public health facilities, birth centers, and home birth practices in Florida and at a high-volume hospital in Jamaica. This community college model combines the advantages of a college education with a deeply held commitment to independent midwifery and seems especially appropriate for replication elsewhere. Two of the private schools that are MEAC-accredited offer advanced degrees recognized by the states in which they operate: the Utah School of Midwifery in Springville, Utah, which offers the Bachelor's and Master's degrees; and the National College of Midwifery in Taos, New Mexico, which offers degrees all the way up to the PhD. Both of these programs have strong apprenticeship components and are extremely affordable. Government funding for students attending MEAC-accredited vocational schools will become available if MEAC is successful in gaining Department of Education recognition (see endnote 8). For more information about American vocational programs, see Rooks 1997; Davis-Floyd 1998a, b. For up-to-date information about MEAC-accredited programs, contact MEAC, 220 W. Birch, Flagstaff, AZ 86001, <meac@altavista.net> or <www.mana.org/meac>.

13. The only currently operating nurse-midwifery program which does not require nursing training is located at the State University of New York (SUNY)-Health Science Center at Brooklyn, in New York City. At this date of writing, only 14 direct-entry midwives have been certified by the ACNM; legislation is pending in many states to create legal status for them as their numbers grow. An update on the status and number of nurse-midwifery programs is published every year in the Journal of Nurse-Midwifery. For up-to-the-minute information, contact the ACNM national office in Washington DC (info@acnm.org; 202-728-9860) and ask to speak to a member of the Education Department.

14. See Davis-Floyd (1998a, 1998b) for a detailed discussion of what motivated ACNM's move into direct-entry certification.

15. For a detailed description of the CNEP program, see Rooks 1997, p. 167-170.

16. Some Canadian university programs employ technologies that allow students to participate at a distance, and one educational proposal being discussed involves a distance learning program accessible to midwives in perhaps the three most Western provinces (personal communication, Susan Issacs, BC Ministry of Health, 1998).

17. In addition to the CNEP program, a number of other DOA-accredited programs also offer distance tracks for nurse-midwifery students, and a distance program for the direct-entry students at SUNY-Brooklyn is under development. (For up-to-date information, see www.acnm.org)

18. There are over 8000 nurse-midwives in the US; fewer than 200 of them attend home births. Many more would like to do so, but are required by law to have physician backup and malpractice insurance for home birth. Since these are often impossible to obtain, CNMS are effectively prevented from

attending home births. Likewise, many direct-entry midwives would like to be able to practice in hospitals, but almost no hospitals will allow them to do so.

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UK Web sites

Association Radical Midwives <http://www.radmid.demon.co.uk/index.htm>

English National Board <http://www.enb.org.uk/>

Scottish National Board <http://www.nbs.org.uk/>

Welsh National Board <http://www.wnb.org.uk/>

UKCC <http://www.ukcc.org.uk/>

US Web Sites

American College of Nurse-Midwives www.acnm.org

Midwives' Alliance of North America www.mana.org