VIII. THE HISTORY AND DEVELOPMENT OF MIDWIFERY

Jane Hilton

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by

Jane Hilton

Senior Thesis - June, 1941

INTRODUCTION

Obstetrics is one of the oldest arts practiced by mankind as it is vitally concerned with the perpetuation of the race. Whether the early practice of obstetrics could be considered an art is a matter of opinion, but as it progressed through the centuries, constant improvements were made until today obstetrics is no longer just an art but a highly specialized science. Even in the last twenty-five years obstetrics has moved from the realm of the general practitioner to the specialist with his highly trained assistants. Introduction and general acceptance of modern anesthetic agents, the reduction of both maternal and fetal mortality, and profitable attention to pre-natal and post-natal care are outstanding mile posts in the progress of obstetrics in the last few decades.

To the modern mother a pregnancy is far removed from the conditions in the dark ages, fraught with uncertainty and justified apprehension. Today's babies' chances of emerging from the hazardous neo-natal period to enjoy a long, full and healthy life so far exceed those of the babies of a century ago as to scarcely allow for comparison. Surely this greater chance for life itself must be an important factor in the production of a greater civilization.

The object of this paper is to show the part women have played in the advancement of obstetrics by their work in the field of midwifery. The development of midwifery is a part of the his-

tory of every country from the earliest centuries. Today the midwife of Europe holds an honored position in professional circles and is partly responsible for the low birth rate of these countries. In the United States the obstetrician has realized the importance of the trained nurse midwife and she has partly taken over his duties in many isolated areas.

In this history of midwifery I hope to show its gradual development from an avocation to a highly specialized profession, which it is considered today.

CHAPTER I

HISTORY*

In the earliest recordings made by man some form of healing of medicine was practiced by each tribe. It was a part of the religion and was associated with gods and goddesses. Because of this fact women held the same position as men and practiced all the obstetrics in the tribe. In Egypt the women were trained as healers and were given special training in gynecology and obstetrics in schools maintained for that purpose. The early Hebrew women were skilled in pre-natal care and obstetrics as shown by many references given in the Bible. Greek mythology is full of women healers and their practice as midwives, but the earliest advancement was made at the time of Hippocrates in Greece. In 460 B.C. schools were established for gynecology and obstetrics which were freely attended by women. The midwife was called the obstetrix and attended all deliveries. She understood operative obstetrics such as version and preformed it when necessary. Besides the obstetrix, a nurse was present who cared for the baby and the mother for forty days. The midwife was generally a woman who had had children, was intelligent, clean, healthy, strong, quiet, prudent, not avaricious and who was well trained in her art. It was not until the advent of Greek slaves in Rome that any improvement in the field of obstetrics was made.

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* Hurd-Mead, Kate Campbell, "The History of Women in Medicine".

These slaves, many of whom were well trained midwives, greatly decreased the infant mortality of Rome.

In the first century A.D., Soramus, a famous Roman physician and teacher, wrote a book on obstetrics and gynecology for women students. He said, "The obstetrix must know how to read and write, must be free from superstitions, have good insight and hearing, sharp intellect, strong arms and legs, soft hands and long thin fingers with short and clean nails, must understand anatomy, hygiene, therapeutics, the normal as well as the abnormal conditions of the baby, must love her work, keep secrets honorably and have had considerable experience before undertaking to care for patients alone. The midwife is the most capable who knows the whole realm of therapy, dietetics, surgery, pharmacy and who can give good advice, is not worried by sudden complications and is prepared to save her patient's life is possible, for she will often be called to visit the seriously sick." He adds that she need not have had children of her own in order to care for a woman in labor. Her knowledge of anatomy of the hidden organs should equal that of those that can be seen; she should know how to perform versions but should never harm a patient.

It is interesting to note that these qualifications which were written in the first century could be used today in describing our nurse midwives.

In the Early Middle Ages for the first to the sixth centuries, very little advance was made in any form of cultural life,

especially in medicine. The entire civilized world was in chaos due to war. During this period of great uncertainty, several Roman women established hospitals, trained nurses and cared for the sick. These women were: Fabiola, Marcella, Paula and Olympia.

In the fifth and sixth centuries no names of women doctors or midwives have been preserved, but the queens studied medicine and cared for the sick. At this time the Christian Church was beginning to take away women's rights which had been practically equal with men's up to this time, so it is little wonder that the mention of women as doctors and midwives steadily starts to decline.

During the tenth century midwifery degenerated greatly from the time of Cleopatra and Aspasia. There was no longer any idea of turning the infant either by podalic or cephalic versions. Often the ignorant midwives would wait until the infant was dead before extracting the child. Gynecology consisted mainly in the use of poisonous remedies to cure sterility and barbarious operations to produce abortions.

The eleventh century was the founding of a great medical school and center at Salerno. The most noted medical woman at the school was Trotula, who wrote books on gynecology and obstetrics which were the chief text books of midwives for four or five centuries . By the influence of these text books the standards of midwifery began to rise to their former level.

In the twelfth and thirteenth centuries midwifery became an art once more and was only practiced by those who were skilled.

Although gynecology and obstetrics were left entirely to the women, they understood the use of the vaginal speculum and midwifery instruments as was taught by the women of Salerno. They were patient and sympathetic with patients in pain and carried out the rules of medical etiquette laid down before by Hippocrates.

It is indisputable that the midwifery of the fourteenth Century was left to women who had been more or less trained to care for women in labor. The men sat at their desks and translated textbooks from the Latin for the use of these midwives. The textbooks of Trotula were the standby although they had been diluted with superstition and cluttered with stupid additions. At this time licensing of midwives started but licenses were granted without difficulty to those who were trained as well as to those who had very little training. In Wurtzberg, for example, there were at one time five midwives appointed by governmental authority and paid to treat the poor without compensation from the patient, each to remain in the house with her patient until her lying-in period was entirely finished. In case a midwife was called to a patient in another town, she must first obtain the consent of the Burgumeister before leaving her own district; and if she required a consultation she must not quarrel with or scold her consultant. The fees to be paid by well-to-do patients were regulated by law but presents were none-the-less accepted from those who were wealthy.

In France the midwives of this century were exceptionally skillful. From those trained at the Hotel Dieu certain women called

ventrieres were annually appointed to make medico-legal examinations. We find, however, that a midwife who "lost" a mother was liable to a heavy fine,if not worse punishment; while to lose a baby was an even more serious matter. Much depended upon the status of the midwife or patient and whether or not the midwife could be accused of witchcraft. Many an innocent medical woman was probably killed on the charge of heresy or because she was accused of being a witch.

Midwives had many duties outside the lying-in room, as they did considerable pre-natal work. For example, if the legs of a pregnant woman were swollen, the midwife took a grinding stone, powdered it as finely as possible, mixed it with vinegar and annointed the congested legs with this antiphlogistic paste. Of course to the doctor of the fourteenth century the cause of any swelling was merely a thickness of the blood and that was an indication for abundant bleeding, a form of treatment to which nobody objected.

During the fifteenth century belief in witchcraft became for the first time really widespread. Women were believed to be in league with the devil, and many were tortued until they confessed their guilt when they were publicly killed.

It is not surprising to find that with the bans against women physicians and the witchcraft mania, women became afraid to undertake even midwifery. Custom and convention continued to insist, however, on having women in the position of midwife not only

to the common people but to royalty. There was some danger but there was also recompense. Margaret Cobb, midwife to the queen of Edward VI in 1470, received ten pounds a year in gold for life together with many presents in recognition of her services.

Education of midwives of this period was generally by oral tradition either directly or indirectly from the writings of Trotula. Toward the latter part of the century, however, at the earnest request of certain midwives, books on obstetrics were compiled in the language of the country. A book by Ortloff of Wurtzburg is typical of them all. He opens the book by telling his student to wrap her hands in cotton cloth soaked in olive oil before examining her patient. He emphasizes the need of care of the mother during the months before the birth of the baby and especially of attention to her diet, which he says should consist largely of beans because they make a large and strong child. As concerns the position of the fetus, he insists that a foot presentation is not to be turned but that all others must be turned so that the child may present by head. He believes that a knee elbow position of the mother brings a quicker birth with less pain than a birth on an obstetric chair. He says that a mother should not be bled, should not jump, and should do only light work. The theory was all right but the medications were outrageous. Ortloff treats sterility by eating pork and kid meat, drinking water of violets and taking medicated baths.

Antonius Guayneris, a doctor of this time, writes on sterility in females. He uses the stones from an eagle's nest, a necklace of

peony seeds and fumigations from the burning teeth of a dead bull. For sterility in males he advocates mixing the testicle of an ox and the cerebellum of a sparrow with certain herbs and dividing the mass into pills to be taken at bedtime.

Hemorrhage and prolonged labor were beyond most of the midwives. Version was seldom tried, and the midwives of the day knew no remedy for placenta praevia and were helpless when a hemorrhage due to this cause occurred. Few of them would attempt to mutilate an unborn child in order to remove it in pieces and so possibly save the life of the mother.

There was little attempt in the sixteenth century to rise above mediocrity. If there were exceptions it was in the field of obstetrics where women showed as usual the greater interest and efficiency. However meagre their knowledge by our standards, it is probable that the midwives of the period were better education for practical obstetrical work than any of their men colleagues.

The most noted French obstetrician of this century was Louyse Burgeois, friend and pupil of Ambroise Pare. Her books on midwifery published between 1608 and 1653 proved that she was one of the best obstetricians of the time. Two other women in France who were outstanding midwives were Mme. de Cantal and Marie de Coste Blanche. At the end of the century Louyse Bourgeoise and others of her learning and skill formed a sort of association like those of our present day nurses and doctors, the members of which made rules for their own protection and for elevation of midwifery in general.

The names of several successful midwives in Germany have come down to us. They are: Anna Elizabeth Harenburgin, official midwife of Braunschweig; Margurita Fuss of Havilburg, so famous she was asked to go all over Germany, Holland and Denmark for consultations; Fulvia Morata,an Italian who attained such fame in Germany that after her death at the age of twenty-nine, a school for midwives bearing her name was founded at Bonn; Marie Colinet of Bern, wife of the renouned surgeon, Fabricius, who was a skilled surgeon as well as an outstanding midwife.

Although there had been little improvement in obstetrics, in several hundred years, yet signs will be noted that at least in the sixteenth century midwives had grasped the idea that sometimes surgery was required and that this surgery might be performed by a man with necessary skill and daring if no women were available.

In the seventeenth century men began to practice the profession of midwifery and great fervor arose about protecting the modesty of women. In France, Pare and Mauriceau helped the midwives with difficult or operative labor cases and each published a book which helped to raise the standards somewhat. In Holland and Germany women still held precedence in the field of midwifery but the surgeons of the time were their teachers.

In England, Peter Chamberlin, who invented forceps, earnestly tried to improve the standards of midwifery, and with his son, Hugh, wrote two books. The two most accomplished and best known midwives in England in this century were Jane Sharp and Mrs. Cellier. Mrs.

Sharp wrote a book called "The Complete Midwife's Companion". It was written not only for nurses, but also "to direct child-bearing women how to behave themselves". In conclusion she advised her pupils to ask help of God "not the College of Physitians". Mrs. Cellier was a very boisterous person, well-to-do, well educated and a midwife of excellent reputation. She felt that it was impossible to elevate the status of her profession unless the women who belonged to it organized themselves for study as well as for work. She recounts how after 1642 midwives were licensed at Cherugion's Hall but not before they had passed three examinations before six skilled midwives and as many Cherugions expert in the art of midwifery. She worked for a royal charter for midwives and also a royal hospital which would be exclusively a maternity home, but due to the want of an enlightened public opinion and because of the timidity and lack of cooperation of the midwives themselves, she was unable to procure them.

Conditions in the colonies were the same as in England and the demand for midwives was so great that any woman willing to do midwifery was soon busy with patients. Some of the outstanding ones were: Anne Hutchinson of Boston, Margaret Barnard of Maryland, Doctress Johanna Smith of Connecticut. It was during this century that medicine made the greatest advances known to this time, but the part that the women played was comparably small. The practice of obstetrics was being taken over by men who established schools in the large hospitals for midwives. The standards were raised but the

prestige that women held in this field was taken over by the men.

In the eighteenth century education was so very expensive that it seemed absurd to spend so much money on the education of a girl. Women, therefore, who had any interest in medicine were obliged to study it from books and pick up what practical knowledge they could from relatives and friends. Midwifery they might study with licensed teachers, either men or women -- Smillie in England, Boivin and Lachapelle in France, Siegmundin in Germany, and others. In 1768 accoucheures obtained permission to attend certain lectures given by the Paris Faculty, and to be present at the autopsies and dissections of women's bodies. At that time the unfortunate girls who were delivered in the hospitals were placed four in one bed, both before and after confinement. The beds were soiled with discharges, and almost inevitably infected with the germs of puerperal fever; and, according to Tarnier, ten percent, of these women died during the puerperium. It is no wonder that syphilis was omnipresent; nor is there surprise that the nurses frequently rebelled at their work.

Nevertheless, some little progress in medical education was being made in England. William Smellie, James Douglas, Cullen, and Munro were drawing students to their classes in medicine and obstetrics from all over the world. At the same time women were admitted to private schools, and were studying the same fundamental courses as men. Smellie hung a lantern at his front door advertis-

ing lessons for midwives at five shillings each. He was honestly devoted to his art; had studied in Paris with the great midwives at the Hotel Dieu; had improved the Chamerlin forceps by the addition of a steel lock; had shown how to measure the pelvis with calipers; and had published a set of thirty-nine superb anatomic plates and obstetric tables. As he was teaching by means of a "phantom", however, he aroused the jealousy and criticism of some of the English midwives who, like him, had been trained in Paris, and who were giving actual bedside training to their students.

While the field of obstetrics was being quietly but steadily invaded by men who were lured to it by the growing fashion among rich women to employ men for their confinements, such men as William Hunter, Thomas Denman, and Charles White were preparing obstetric charts for the use of women midwives, and urging them to learn the use of forceps and calipers, which were readily purchasable after 1773. Among the women of the middle classes, there was still a feeling that it was immodest for a woman to allow a man to be present in her lying-in room except in time of great stress, and they preferred to be delivered by women.

Besides the new obstetric charts such as those above mentioned, there were new books written for midwives. Among these a popular one of the older sort had the title "Aristotle's Compleat and Experienced Midwife. In Two Parts, by W. S. A Man, midwife". This was a translation and compilation from an older book, being republished in 1710. Its frontispiece shows a weary woman lying in a very short bed,

bolstered on high pillows and surrounded by four hooded nurses. Beside the roaring fire sits another nurse with a swaddled baby on her lap. This is evidently an authentic picture of the lying-in room of the period after the obstetric chair has been removed. The author tells us that he publishes this translation for the sake of the mothers who are obliged to employ incompetent midwives to bring their babies into the world. He says he is shocked at the number of maternal deaths and dead-born infants--tragedies which might have been prevented if midwives had known what he tells them.

If such were the only books in the hands of the midwives of that day, is it any wonder that the infant and maternal death rate continued high? Aveling tells us that, in the seventeenth century, one baby in nineteen was born dead, and in the eighteenth century, one in thirty, as against one in one hundred and eight in the middle of the nineteenth, when midwives were doing ninety percent of the the obstetrics throughout England. Harvey, in the seventeenth century had implored midwives to have patience with a woman in labor, had urged them not to try to hasten delivery by hot drinks, violent pressure or exercise, not to use traction on the cord for removal of the placenta, and above all to clean everything that was being used in their work. At that time any woman might be licensed as a midwife if she belonged to the Church of England, promised not to neglect the poor for the rich, not to bear false witness, not to produce abortions, not to tell secrets, not to allow any false priest to baptize a baby, and not to maim a child or use witchcraft against it. But even such qualifications

seem to have been too high for the average midwife.

In France during this century there were several women who were skilled in the management of difficult labor. Four of them stand out: Madame Duges and her daughter, Marie Louise Lachapelle, Madam Boivin, and Madame Ducoudray Leboursier. Each deserves more than passing mention. Madame Duges was born in 1730, the daughter of a midwife, from whom she learned her obstetric art, although she finished her training at La Maternite. She married an Officer of Health with whom she studied whatever was necessary for her own medical work. She was then appointed medico-legal midwife to the Chatelet law courts and prison. Later, while resident at the hospital, she reorganized the maternity department of the Hotel Dieu, wrote several books for her pupils as a part of her teaching service, and improved many details of hospital care of patients. She died in 1797, leaving her even more famous daughter, Marie Louise, to carry on her work.

Marie Louise Duges was born during the residence of her mother at the Hotel Dieu. From childhood she was the companion of her mother, and was so apt a student that, when she was only fifteen years old, she officiated in a very difficult case of version and saved both mother and child. In 1792 she married a surgeon of the Hospital St. Louis named Lachapelle who died three years later. At her mother's death, Marie Louise was appointed the resident head and manager of the maternity department of the Hotel Dieu, where Baudelocque was then teaching obstetrics. Later she studied in Heidelberg under the

German specialist, Naegele; and, on her return was asked to organize a maternity and children's hospital at the Port Royal, where she instituted several worthwhile innovations in the care of patients and the training of midwives.

Her great work, in three volumes, bearing the title, "Pratique des Accouchemens, ou Memoirs et Observations choisies, sur les points les plus importans de L'Art; Par Mme. Lachapelle, sage- femme en chef do la maison d'Accouchement do Paris", went through many editions. It opposed Boudelocque in several respects, evidently somewhat to his annoyance. She classified the positions of the foetus better than he did, reducing his 94 positions to 22. She insisted that instruments should be used as little as possible, and never for the mere sake of shortening labor. She showed how to insert forceps deftly, and how to make effective but gentle traction upon the blades with one hand alone. Also, how to finish the perineal toilet as neatly as it is now done, was included. In all her 40,000 cases she interferred with nature in only 1.73%, using forceps only ninety-three times, version one hundred and fifty-five times, symphisiotomy twice, and Caesarian section but once. Her second volume was on extraordinary cases and their treatment; and the third on the then new operation of symphisiotomy. Madame Lachapelle also tried, but in vain, to exclude all but the immediately necessary helpers from the lying-in room because she thought that in some way the crowd of observers, by obstructing light and air, might cause the dread puerperal fever. It was said, by the way, that Marie Antoinette was nearly smothered by

the throng around her bed, so anxious were they to see whether her new baby was a boy or girl, and whether perfect or deformed. This was a custom that had come down from early times, and could not be easily changed.

In bringing about innovations for the management of labor she was more successful. She advised the immediate repair of a torn perineum, and in cases of placenta praevia she insisted upon quick dilation of the os uteri with tampons and the extraction of the infant by version, thus saving the lives of both mother and child. She invented a method of deftly turning a face or oblique presentation of the head so that it could be born without the use of forceps, and of replacing a prolapsed arm or shoulder before it was too late. And from her statistical tables many facts were settled as to the length of pregnancy, the duration of labor, the proportion of cases of dystocia of the pelvis, etc. She died of cancer of the stomach in 1821, leaving no descendants except one daughter, who had become a nun.

In Germany another then famous but now little remembered midwife of the eighteenth century, was Marie Elizabeth Sauer, the great grandmother of Marie Zakrzewska, who was the first woman professor of obstetrics in the United States. Marie Elizabeth Sauer, was a gypsy queen of the Lombardi family, beautiful and highly education. Her father, a surgeon in the army of Frederick the Great, taught his daughter to be his assistant. As a young woman she is said to have operated on a certain Captain Urban who had been wounded in the chest, working so skillfully that it led to a romance and they were married.

Of their nine children, one, Marie Zakrzewska's grandmother, was educated as a veterinary surgeon because of her love for animals; and her daughter, Marie's mother, was one of the chief obstetricians at the great Maternity Hospital in Berlin, where Marie herself became chief of staff in 1851.

The Von Siebolds, mother and daughter, were both, as midwives, well known in England. Both received the title Dr. Obst. from the University of Giessen, that of the mother being granted in 1815.

She was the wife of a noted physician at the court of Darmstadt, with whom she studied all the subjects taught in any medical school. Her diploma as sage-femme came from the school at Wurzburg. Charlotte von Siebold, her daughter, born in 1761, studied first with her mother; and in 1812 she went to Gottingen to study with Osiander. In 1817 she received her degree from Giessen, and then taught midwifery there. Her thesis was on "Extra-Uterine Pregnancy". In 1819 Charlotte von Siebold was called to London to care for the Duchess of Kent at the birth of Victoria, the future queen of England. She died in 1859. Neither mother nor daughter seems to have left any writings; but they made one more link between England and Germany at the time of the Hanoverians.

During the eighteenth century Austria was ruled by a woman of great wisdom, Maria Theresa, the daughter of the Emperor Charles VI who ascended the throne at the age of twenty-three. She made it one of her first businesses to organize new medical schools, sending to

placing even more emphasis on the necessity for cleanliness than was done in the Vienna hospitals. Under Saxtorph women were so thoroughly trained in midwifery that men specialists in obstetrics received only abnormal and operative cases. This practice has survived to the present time; and in no part of the world have maternal morbidity and mortality or infant deaths been dept at so low a figure as in Scandinavia. Naturally there was some opposition to giving increased obstetric responsibility to women. There were those stubbornly opposed to the use of any instruments and to Caesarian section; while there were others in favor of educating midwives to manage instrumental and surgical as well asnormal deliveries. The final result was the compromise stated. Unfortunately, as in the days of the monastic women, we know less of individual names in Scandinavia than in countries where there were outstanding accoucheuses who wrote books.

CHAPTER TWO

MODERN DEVELOPMENTS.

ENGLAND

The history of midwifery practice in England is an interesting one since, although the profession has always included women of varying grades of education and status, yet it has at all times attracted into it women of fine ideals and inspiration to whom its responsibilities and potentialities have made a strong appeal.

The midwives themselves made several attempts to regulate their profession but official recognition of their office was not given until the Act of 1902 definitely laid down the conditions of their employment; this Act was largely the result of the work done by the midwives through the Midwives Institute.

The work of the midwife differs greatly from the general nursing in that the midwife bears the heavy responsibility of two lives, that of the mother and that of the child. She practices in normal cases without the doctor to advise or assist her and she deals with a normal physiological process instead of with a pathological condition. These differences have to be appreciated in order to understand the differences of legislation connected with the midwifery service.

Recognition of the importance of this service was given by the Midwives Act of 1902 under which the Central Midwives Board was constituted, consisting solely of nominated members whose duties are

to carry out the provisions of the Act. The Central Midwives Board approves courses of training in midwifery and conducts the examinations conferring the qualifications of midwife. A roll of midwives is kept by the board and any women whose names are not on the rolls are forbidden to practice. The Board laid down definite regulations respecting the practice of the midwife, defining as closely as possible the scope of her office and her responsibilities. The Board had the power to remove a midwife's name from the roll for disregard of the regulations but she could appeal to the High Court against this decision.

The actual supervision of the midwife is given under the Act of 1902 to the local authorities of the county and the county borough councils; these authorities being called in the Act by the title of Local Supervising Authorities. The Local Supervising Authorities are given the duty of exercising a general supervision over the way in which midwives carry out the regulations of the Central Midwives Board. They have to investigate cases of malpractice and report it to the Board.

The midwife on her part is obliged to cooperate with the work of the supervising authority such as the registering of births.

In 1918 a second Midwives Act dealt with some of the anomalies and difficulties which had arisen under the former Act, but the main points remained as they had been.

After the War a great many new health services were devised and the midwife of this new period found herself an integral part of

a growing national scheme for the protection of mothers and children. Her service tended each year to come into more intimate contact with the public health and hospital authorities, and her work to be publicly recognized as of national importance.

The Midwives and Maternity Homes Act of 1926 was designed to strengthen the existing law to prevent unqualified women from practicing midwifery. The major point of this bill was regulating and inspecting maternity homes.

In 1929 a Local Government Act of widely reaching influence was placed on the statute books. By this Act the local authorities were able to combine many diverse health schemes into one coordinated effort to maintain good health in their areas. In this advance in local government the certified practicing midwife had a place of importance, but due to the fact that they are employed by various authorities there is a notable variation in their remuneration and status. In 1930 the Ministry of Health started an inquiry into the midwifery service which led to the passage of the new bill in 1936.[1]

The Government's Midwifery Bill passed March 18, 1936, was presented to provide a salaried midwifery service for England and Wales. The Bill states that local authorities must consult with voluntary agencies and see that either by giving grants to the latter or by establishing their own full time pensionable service of midwives or both, every mother is assured the services of a qualified midwife during labor and of a midwife or a State registered nurse

1. Viney, Hester S.R.N. "The English Midwifery Service", Am. Jour. of Nursing, 1937.

for ten subsequent days. Special exception is of course made in the case of pupil midwives, but the Bill signs the death knell of the handy woman working for gain under the doctor.

The authorities are empowered to recover the whole or part payment of the midwifery service from each patient according to her ability to pay and are to receive considerable financial help from the State to meet the additional cost.[1]

1. "The Government's Midwifery Bill", Nursing Times, April, 1936.

DENMARK

Normal deliveries throughout the kingdom are left to midwives and apparently have been for so many years that it has become the accustomed way of handling maternity cases. Midwives are trained, licensed and supervised under State control. As proof of the value of midwifery, it was pointed out the low incidence of puerpual fever and especially its decline since 1900.

For over 140 years the systematic instruction of midwives has been carried on in Denmark as a part of the maternity hospital service, the training being given by physicians assisted by graduate midwives and nurses.

There are two lying-in hospitals in Denmark under government control, the large on in Copenhagen and another at Aarhus on the east coast of the mainland in mid-Denmark. This maternity service was intended primarily for unmarried women but some married women are also accepted, chiefly normal cases whose homes are unsuitable for confinement or women presenting special obstetrical difficulties or operative cases. The physicians at these hospitals may be called upon night and day by any midwife in town to assist free of charge at a difficult labor of an indigent woman.

Candidates for midwife training may be recruited from any group of society. Their ages vary between twenty and thirty years. They are bright, healthy looking, intelligent young women of the type from whom our best class of trained nurses would be recruited in this

country. Some have previously had nurses' training, but all must have had a complete course in so-called primary schools. They are nominated by the district health officer in the county or town in which they reside subject to the approval of the physician in charge of their training and the director of the Royal Hospital. All candidates come on a month's probation and are then given a comprehensive examination; if they do not pass they are sent home.

The instruction lasts two years and is under the direct supervision of the professors of obstetrics at the State Medical School. The chief midwife for the past eighteen years has been Miss Johanna Rodtness and the high level of training which has been maintained in the school is due largely to her excellent organization and cooperation.

The best description of the training is given by her: "The midwives are sent for all confinements in Denmark and as a rule they conduct all normal deliveries. Only in case anything dangerous may occur, the physician must be called. The training lasts two years and every year several midwives receive permission to take a further year's training being appointed assistant (teacher) midwife at the lying-in hospital or in a private nursing home; these positions offering a splendid training. In November a "refresher" course at the Royal Hospital is always held for older midwives.

"Midwife pupils daily receive one to two hours theoretical instruction. Practical instruction is conducted by the chief midwife

(about 1500 confinements a year are available as teaching material for a class of forty. Instruction is given in disinfection, hygienic care of the skin, biology, normal pregnancy and antepartum care. The pupils learn the symptoms of the different diseases which may arise, especially during pregnancy. At the same time instruction is given on how to conduct a normal delivery.

"A physician must be called for the following complications:

1. Need for an anesthetic
2. Transverse presentation
3. Placenta praevia
4. Accidental hemorrhage
5. Retention of placenta
6. Inversio uteri
7. Post partum hemorrhage
8. Possible eclampsia
9. Prolapse of cord or limbs
10. Irregular head presentation
11. Breech in a primipara

They may act on their own responsibility in the following cases:

1. Breech in a multipara
2. Version of a second twin
3. Rupture of membranes with normal head presenting if dilitation is complete
4. Suturing of lesser ruptures of the perineum
5. Administering ergot with lesser hemorrhage
6. Blue asphyxia of child
7. Normal care of mother and child

Any digression from these set rules involves a serious penalty.

"An examination is given at the end of the training and on passing, a license is granted. All licensed midwives are under the control of the district physicians who represent the National Board of Health. The county medical officer holds an annual conference of midwives and goes over their records before renewing their license. There are 1,100 midwives employed each year as an average."[1]

1. Mendenhall, Dorothy Reed, M.D. "Midwifery in Denmark".

SWEDEN

Today Sweden is said to have the lowest infant mortality in the world and its state control of medical education is often commented upon. Regardless of this, Sweden's history of nursing dates back only to 1820, but if one ventures to investigate one discovers the singularly illuminating history of the Swedish midwife who up to the dawn of the modern nursing movement held the respected state position of midwife and nurse in every district. Today there are 3,000 practicing licensed midwives in Sweden while the total quota of trained and semi-trained nurses is only 5,000. Only 800 of these midwives are practicing in cities and towns while 2,200 have been assigned by the state to country sections. In Sweden eighty per cent of deliveries are conducted by midwives. In Sweden supervised midwife practice has been in vogue for more than 200 years. Aside from the midwife, Swedish medical history reads like the records from other lands.

In 1682 Queen Hedvig Eleonora established a so-called medical college in Stockholm, but its sole purpose was to train midwives. A maternity hospital was built where pupils worked for five or six years before they were sent out into the country. They had from two to three deliveries each week, and in addition, a district service in the homes. In 1697 Dr. Johan Vander Horn published the first text book of medicine in Sweden entitled "The Well Trained Midwife".

After leaving the college the midwives were assigned to their specific districts with instructions that they were to give

monthly reports of their work to the health commissioner and to make a note of things that they did not understand. This clause may seem to have been a bit far fetched in the beginning for often before the state had assigned trained doctors to the job the health commissioner took the form of a Lutheran priest. The qualifications required of the prospective midwife are sound:

1. Women of good morals and religious faith
2. Desirable age about forty
3. Intelligent
4. Patient and not inclined to anger
5. Not large of limb or fat
6. Preferably those who can read a book

In 1777 a law was passed that women practicing midwifery without training and a permit must pay a fine or go to jail.

It was these pioneer midwives who became the first district nurses of Sweden; and because they were responsible to the state for all their actions and for their work, they were wide awake according to the light given them.

The midwives today are doing considerable district nursing in Sweden, and therefore they are called in by the state to take review courses in order to bring their technic up to date, and those failing in qualifications are ruled out.[1]

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1. Olsen, Marie, R.N. "Nursing in Sweden", Am. Jour. of Nursing, vol. 32, p. 1059.

UNITED STATES

The United States has about 47,000 midwives and "other women" who are called upon to attend about 15 per cent of the births in this country each year. Only a few have been trained in midwifery. Communities give the following reason for permitting midwives to practice: racial customs, economic conditions, sparseness of population, and scarcity of physicians.

Although the countries of Europe steadily improved their standards and practice of midwives, the United States did not begin any sort of an intensive program in this direction until the twentieth century. Bellvue Hospital had the first school for midwives in the United States and that was established in 1911.

In the last twenty years there has been much interest in the development of training schools for nurse midwives. Efforts of various groups served to prepare the way for the formation in 1931 of the Association for the Promotion and Standardization of Midwifery. The board of trustees are: George W. Kosmak, M.D., Benjamin P. Watson, M.D., Hazel Corbin, Shepard Kreech, M.D., Mrs. Mary Breckinridge, Mrs. E. Marshall Field, James A. Harrar, M.D., Lillian Hudson, and Linsey R. William, M.D.

The board outlined the need for the development of training schools for nurse midwives which would be controlled by competent medical authorities. These schools would graduate trained women who would recognize the importance of working under medical supervision and who, if later placed in supervisory positions in official health

departments would gradually be able to help bring about medical supervision of midwife practice.

A training school has been organized as a memorial to Ralph Waldo Lobenstine, M.D. It is financed for a three year period by a group of sixty women under the leadership of Mrs. Marshall Field. It is affiliated with the Lobenstine Midwifery Clinic in New York City.

The course in midwifery will cover a period of ten months. The first four months include instruction, supervision and practice in the general field of public health nursing with special emphasis on supervision. The work is given under the supervision of the Department of Nursing Education Teachers College, Columbia University. The remaining six months in midwifery include: (1) Lecture and demonstrations by obstetricians and nurse midwives. (2) Observation and instruction in cooperating maternity hospitals. (3) Observation of at leasty seventy-five labors and deliveries. (4) The delivery of twenty-five women in their homes under the supervision of the resident obstetrician or nurse midwife.

Preference is given to applicants from states where the practice of midwifery is more common and where the individual applicant has the endorsement of the State Health Commissioner or the Director of the Bureau of Child Hygiene.

The Committee on the Cost of Medical Care considered this problem of midwifery and they believe that the time has come for the recognition of the part which may properly be played by the trained

nurse midwife in medical care. In many parts of the country, particularly the South, the trained nurse midwife working in conjunction with a skilled obstetrician seems to offer the only solution to the difficult problems involved in providing proper maternity service to an economically weak and widely scattered population. The Committee therefore recommends that schools be developed for the training of nurse midwives and provision be made for adequate state systems of registration and supervision of such practitioners. Preferably they should be utilized by medical organizations or individuals who can provide competent supervision of their work.[1]

Supervision of midwives is an important part of any program of maternal and infant health in the southern and south western states. In the ten states from Virginia south to Florida and west to Arizona, midwives delivered at least 174,000 babies in 1936 and our highest maternal and infant death rates are found in this area.

It is believed that these high death rates may be attributed in a certain measure to lack of knowledge and skill on the part of the midwife. We should never lose sight of the fact that such deaths are most likely to occur in the poorest economic group of our population.

With the aid of social security more public health nurses are available and more instruction can be given. The difficult task of instructing this poorly educated group, usually illiterate individuals, engaged in the practice of obstetrics requires all of our knowledge

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1. Hemschemeyer, Hattie, "A Training School for Midwives Established, Am. Jour. of Nursing, vol. 32, p. 374.

of the arts of teaching. In teaching any group we first must become familiar with their background and characteristics; determine their potentialities for learning; consider the grade of material to be presented and plan our subject matter on the basis of these factors.

The average southern midwife learns slowly and she learns best from demonstration. She learns easily through imitation and through the simple presentation of vital material. Her sense of the dramatic is keen and the most effective teaching is that in which willing patients in the classes and in the homes are used for demonstration. In teaching the science of obstetrics a simple explanation of the principles is made in terms which they can understand. Mannequins are used in these demonstrations. Midwives also visit ante partum clinics and case histories are presented.

It has been found that the midwives' powers of observation have been developed more by the use of visual material and demonstrations than in any other way. The teaching of nursing procedures to midwives is not enough as they are engaged in the practice of obstetrics and an understanding of its fundamentals is required. An understanding of ante partum complications makes the midwife an enthusiast for ante partum care for her patients.

The ways of presenting teaching material depends largely on the midwives' ability to learn. Especially helpful in teaching are motion pictures, drawings, and illustrations, mannequins and patients.

The nurse who approaches the problem of teaching midwives finds an ideal teaching situation. They are interested in and de-

sirous of learning. The material learned is extremely practical and immediately useful. The midwife is an active public health agent when she assumes the responsibility for getting her patients in to doctors or ante partum clinics for care, when she takes an active part in the syphillis control campaign by reporting cases and by taking blood specimens from the cord for Wassermans, when she uses the available medical and nursing services in time of doubt or need, and finally when she teaches the mother the best care of herself and her baby. It is this type of midwifery that adequate teaching and supervision will foster.[1]

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1. Ferguson, Elizabeth, "Midwifery Supervision", Public Health Nursing, 1932.

CHAPTER THREE

COMPARATIVE METHODS OF TRAINING

In Europe the training of midwives has generally been entirely separated from the training of nurses. Today the trend seems to be changing and more countries are demanding at least two years of nurses' training as a prerequisite for midwifery training.

In England under the new Government Bill two years of nursing plus twelve months of midwifery training is necessary for a Part one certificate which entitles the midwife to practice. For any supervisory position, such as a district or maternity hospital, or for teaching positions, a midwife must have at least two years' special training. The maternal and child mortality is very low, which is proof that the maternity program is adequate and successful.

In Denmark nurses' training is not a prerequisite but it is encouraged. The course for midwives lasts two years, and those selected for it must have what is equivalent to our high school education. For teaching and supervisory positions additional training is necessary. The midwifery students are given the same amount of experience in deliveries as are the medical students and statistics show that the infant mortality rate in the hospital where the midwives are trained is lower than where the medical students are taught.

In Sweden nursing and midwifery training are entirely separate. The midwifery course covers two years which is divided equally between theory and practice. At the end of the course a license is granted to those who pass the final examination and this license must

be renewed each year. Refresher courses are given annually before the licenses are renewed in order to keep the midwives up to date on the latest techniques. Eighty per cent of the deliveries in Sweden are attended by midwives and the lowest maternal mortality in the world is found here.

The United States has adopted the standard that all midwifery supervisors and teachers must be trained-nurse midwives. The schools which are available for midwifery training require as a prerequisite, graduation from an accredited school of nursing. In this way it is hoped that the standards of midwifery in this country will be raised by having adequate supervision of those midwives who practice without adequate training. As state registration is necessary for all midwives, they can be required to take special courses offered by the supervisors, thus bringing modern methods of obstetrics before them. As this program is comparatively new, no definite conclusions as to the results have been worked out, but the ultimate aim is to lower the maternal and infancy mortality, particularly in the southern states.

CHAPTER FOUR

FUTURE TRENDS

The midwives of this country, although small in number, as a group are important because they are linked with the vital considerations of competent obstetrical care and maternal and infant mortality. The number of midwives and the proportion of the births they attend have been decreasing rapidly, especially in the last decade. This is due partly to a more strict supervision of midwives and their practices and partly to the restriction of immigration and the consequent decline in the demand for midwives' services by the foreign-born population.

With the immigrant population, tradition and custom are strong factors in the continued use of midwives. Among many foreign groups there is great prejudice against having a male doctor perform childbed services. Immigrants employ midwives also because in the home country practically obstetrical care for people of their circumstances is given by these practitioners.

In the South, the scarcity of physicians in rural districts and the poverty of large sections of the population are the dominant reasons for the employment of midwives, especially among Negroes. The health officer of a sparsely settled southwestern state puts the situation in the South succinctly: "We must accept the midwife and attempt gradually to improve her practice. Fewness of physicians and the distance people live from them make it impossible for a large part of the population to employ them, because (1) they are not to

be had at any price and (2) because people cannot pay the fees. A trip of 100 miles at a dollar a mile plus the regular obstetric fee would consume more than the entire cash income of a family for a year in many cases." In the urban communities of the North, the midwife almost invariably charges less than the physician.

Until recently, members of the medical profession have felt that the midwife had no proper place in medical care and that it was not worthwhile to attempt to educate her and to give her legal status. Within the past decade or two, however, as study has been given to the problems of obstetrical care in this country, a notable shift has occurred in the attitude of physicians toward the midwife. The medical profession has recognized that for some time to come economic factors will make it inevitable that an appreciable proportion of the births in this country, especially in rural areas, will be attended by midwives. Because the midwife is necessary she must be better trained and supervised.

Many physicians forsee the solution of the present problem of providing good obstetrical care in organized cooperation between the obstetrician and a professional nurse-midwife. As seen by her advocates, the nurse-midwife is a trained nurse who, in addition to her regular nursing training, has studied for at least a year in a modern maternity hospital. Those who propose the development of such a practitioner believe that, working under the direction of an obstetrician and left in charge of normal cases only, she will give a highly satisfactory type of maternal care. Such a solution seems to

hold promise of furnishing to the people of lower economic groups and in certain geographical areas better obstetrical care than they now receive and at a price which they can afford to pay.[1]

The mortality associated with childbearing has been looked upon as an index in estimating the success or failure of adequate maternity care, whether this estimate is justified is still undecided but it does seem that the advances in medical knowledge in other fields should be reflected in that dealing with childbearing. Careful studies show no dimmunition during the last quarter of a century in the number of puerperal deaths and efforts to determine the reasons have resulted in an attempt to fix a "preventability factor". For example, in a recent report on the maternal mortality in New York City this has been estimated as over sixty per cent. In otherworks, out of a total of 2,011 deaths in a three year period covered by the report, 1,343 (65.8 per cent) were, in the judgment of the advisory committee, preventable. That number of women, if they had received proper treatment and care, should have been brought safely through their pregnancy and labor.

The word "blame" looms very prominently in the discussion of responsiblity for high puerperal death rates. Doctor, midwife, nurse and public each have been designated as a factor. Explanations have been largely supplied by the doctors; the midwife and nurse have quite naturally remained silent, and the public thus far has refused to accept any responsibility.

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1. The Committee on the Costs of Medical Care, Abstract Publication #15.

There is no branch of medicine in which the nurse participates to such an important degree as in obstetrics. Gradually her duties and responsibilities have grown from those of a mere handmaiden to the doctor to those of a counselor to the prospective mother and an integral factor in ante partum, labor and post partum care. Unfortunately she has taken on many of these new duties without the sort of training which really should fit her for the task and and no agreement has been reached as to how it shall be done.

It is interesting to note among other things that midwives care for eight per cent of the confinements in New York City with excellent results--their mortality rate being only about 1.4 per cent. Now these women upon apraisal were found to be far from satisfactory, many were ignorant, likewise incompetent, they worked without adequate supervision or regulation. Yet they evidently filled a place and competed to a degree with the doctor and the hospital, because particular population groups were satisfied with their services.

It must be evident that this class of practicioners cannot be disregarded, they cannot be immediately eliminated even if their final elimination might prove desirable. The question of today is whether they should be placed on a higher level by proper training and supervision. Some believe that they can and should be and that can be accomplished most satisfactorily be developing a body of more highly trained midwives from the registered group of nurses who shall act as teachers and supervisors. In addition to this function such

nurse midwives could, under direct medical supervision, care for a certain group of maternity patients, either as individuals or as staff members of specialized organizations such as the Frontier Nursing Service of Kentucky. The latter has demonstrated conclusively that good and effective work can be done by well trained midwives under the most adverse circumstances.

There is much opposition to midwives among physicians. A careful study of the pros and cons of the situation shows there is a legitimate field for midwife practice which has been neglected, but which can be developed with the aid of better trained women having higher preliminary educational standards such as might be expected among the trained nurse group.[1]

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1. Kosmak, George, W., M.D. "The Trained Nurse and the Midwife", Am. Jour. of Nursing, vol. 34, p. 421.