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RESULTS OF SUPERVISED MIDWIFE PRACTICE IN CERTAIN EUROPEAN COUNTRIES

CAN WE DRAW A LESSON FROM THIS FOR THE UNITED STATES? *

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The midwife, as an established institution in obstetric practice, has been accepted abroad without question. The system of maternity care by properly educated and licensed midwives is, in fact, regarded as a state function, and the European medical profession has adjusted itself to fit into this scheme in varying degrees in different countries.

It is not so many decades ago that practically all confinements in the majority of European countries were actually attended by midwives, and it is only with the growth of maternity hospitals that any decided proportion of cases has been handled by physicians. In some countries, such as Germany, the midwife even among the better classes of the population has done the actual deliveries, with the physician acting merely in an advisory capacity and ready to intervene or assist when the occasion arises. In this country we have been more hesitant in accepting the European system of midwife care, although among our foreign-born population this is quite universal in many localities, and even among our native-born people, and especially in rural districts, the midwife, so called, still holds sway.

A journey through Scandinavia last summer with the American Gynecological Club impressed me greatly with the good results obtained in a carefully supervised system of midwife instruction and practice. To begin with, the midwife in Scandinavia is not regarded as a pariah. Her ranks are recruited from the substantial middle classes of the population, mostly daughters of farmers, shopkeepers or minor government officials, who take up the study not solely with the desire to earn a livelihood, but because of their wish to educate themselves in this important function of womanhood, or to be a part of a much respected system of social welfare activity. One sees therefore in the training schools for midwives bright, healthy looking, intelligent young women of the type from whom our best class of trained nurses would be recruited in this country, who are proud of being associated with an important community work and whose profession is recognized by medical men as an important factor in the art of obstetrics, with which they have no quarrel.

These women are thoroughly instructed in elementary obstetrics, more by practice and precept than by book learning. They are taught to revere the physician, and they are distinctly shown their limitations. Moreover, the one great and important factor in their training is the knowledge that pregnancy, labor and the puerperium are physiologic acts in a woman's life in the majority of cases, but that pathologic conditions may develop in any one of their patients. With such pathologic conditions they must not concern themselves except in emergencies, and they are compelled by law to call in a physician for a transfer of responsibility in every case in which their clearly defined limitations are exceeded. As a result we find no attempt on the part of these women to cover up any sins of omission or commission. They fully realize that the fines or the abrogation of their license to practice are not only material losses but a shameful exposure of their shortcomings which would at once affect their standing in a community. An excellent system of supervision involves the reporting of their work to some central authority at regular intervals during each year. This is not a perfunctory report, but an actual record in diary form of every bit of work which they have done. In addition to this, midwives are compelled to take review courses of two weeks, each at stated intervals, in their original hospital if possible, and are retired from practice at 50.

In considering the instruction of midwives in Scandinavia, one is greatly impressed by the thoroughness of the teaching and the length of time given to such training as compared with what is required of our medical students in this country. True, the premedical preparation is perhaps not so complete, but here are women who have come into the most intimate contact with at least eighty cases of labor during each year of a two-year period as compared with the paltry ten cases required by licensure for graduate physicians in many states. It would perhaps be better to omit the latter requirement entirely from the studies of our graduates who will not do obstetrics later on and require of the others a larger number of cases.

The leading Scandinavian midwife schools are located in Copenhagen, Stockholm, Gothenburg, Oslo and Bergen, and all are modern, well equipped and adequately staffed. The proportion of births attended by midwives and physicians, respectively, in Norway is available for 1918, when, out of 64,187 births, 54,670 were attended by midwives, or 85 per cent. In Sweden, in 1921, the percentage was 84.3.

The first Danish maternity hospital was founded in Copenhagen in 1759, and with various additions has now grown to an institution of almost 200 beds. It

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is charmingly situated, like all similar Scandinavian hospitals, in extensive landscaped grounds, and provided with a maximum of fresh air and sunshine. This woman's hospital, of which Professor Gammeltoft is the director, constitutes a part of the Rigshospitalet, or state hospital, and is primarily for the instruction of medical students and midwives, the latter being in charge of Professor Hauch, with a teaching material of 2,000 cases annually. The period of training at this institution is one year, but it is planned to extend it to two. About forty women are graduated annually, who go largely into the country districts and the Danish colonies.

The Gothenberg Maternity Hospital, of which Dr. Lindquist is the director, is one of the Swedish institutions for midwife training, taking care of about 3,000 obstetric cases annually, with sixty midwife pupils in training. The mortality in this well conducted institution has averaged about 0.14 in the last twenty-five years.

At Bergen is a new woman's hospital, with Dr. L. S. Peterson as chief, which has 100 obstetric beds that serve as the basis for midwife instruction.

The Swedish scheme of midwife instruction is carried out largely in its leading institutions, situated in Stockholm and Gothenberg, which, in addition to their function as lying-in hospitals, maintain government schools for the teaching and training of midwives. When Professor Bovin, the director of the Lying-In Hospital of Stockholm, recently described the system to our group of visiting physicians, he prefaced his remarks by the statement that he was aware that the word midwife did not sound well in the ears of American obstetricians, but he felt that the scheme of midwife instruction in Scandinavia was manifestly different from that in the United States and was developed to meet different conditions. The organization, education and supervision of the midwife in Sweden and Norway has been in vogue for more than 200 years, a period longer than that during which nurse training has been effective. It is worthy of note that the training of midwives has always been actively and actually participated in by the leaders of the European medical profession. Such schools are in part, or entirely, supported by governmental subsidies and are integral parts of large maternity hospitals. The curriculum is about the same in all Scandinavian schools. In Sweden, for example, at the present time there are resident in each of the two schools of midwifery about sixty pupils. The course of instruction lasts from one to two years and the candidates are essentially regarded as "maternity nurses" for normal pregnancy, labor and puerperium. As midwives must call in a physician when in doubt or in trouble, they are taught to recognize abnormalities.

Sweden has a widely scattered population of about 6,000,000 people, most of whom are in rural districts, which makes it necessary for Swedish midwives to be capable of acting in emergencies when physicians cannot be reached. Those in charge of this training see no objection, therefore, to teaching such women how to perform certain obstetric operations, including manual removal of placenta, external, internal and combined version, extraction in breech presentation, and even the use of low forceps. Each student during her course has an opportunity to conduct about eighty deliveries under supervision. She is likewise trained on the manikin to perform various obstetric procedures. In addition, the course covers lessons in a pediatric clinic, where the pupil is impressed with the evils following artificial feeding. The midwives are moreover educated to give advice on the general hygiene of pregnancy and likewise on the health of the normal child in the first year of its life.

As a preliminary education, the present requirements prescribe in Sweden a complete course in the so-called primary schools, but within a year before beginning the course in midwifery, the student must have had a thorough review of the preliminary education. The authorities are not quite satisfied with this requirement, but thus far have been unable to obtain from the Swedish diet any change in the law because of the fear that an increase in the educational requirements will prevent that class of women from entering the schools who can stand best the hard life of a midwife practicing among the peasantry.

The results of this midwife training are evidently excellent because the mortality rates of these countries are remarkably low and likewise the morbidity following childbirth. In connection with these low rates, the fact must be taken into consideration that the Swedes and the other Scandinavian nations have remained a pure, sound Germanic race. For this reason, the proportion of abnormal confinements is quite small. For example, according to the statistics of the Stockholm Lying-In Hospital for the year 1925, among 3,148 confinements there were sixteen deaths—a rate of 0.51 per cent, which includes sepsis from criminal abortions. During that year there were also three fatalities in ten cases of placenta praevia. Twenty-one cases of eclampsia occurred without deaths. In Sweden and the other Scandinavian countries, contracted pelvis is a rarity and in the entire year only one instance of flat pelvis, for example, was noted at the Stockholm Lying-In Hospital, for which cesarean section was done. Spontaneous delivery seems to be the rule.

One cannot, of course, present a detailed study of the effect of midwife practice in Scandinavia. Attention must be drawn, however, to the remarkably low mortality rate of these countries in which midwife activities must have an important bearing. In Norway, the average puerperal death rate from 1900 to 1918 per thousand live births was 2.95, with midwives participating in about 85 per cent of the cases. Sweden has an average rate of 2.45 with about the same midwife participation.

It has been assumed, whether justly or otherwise, that the maternal morbidity and mortality statistics associated with childbearing in the United States are on a very low plane, and we have been accused in various quarters of presenting a picture in this respect which is not in accord with our otherwise high standards of civilization. I repeat the qualification "justly or not" because the comparison made between our records and those of foreign countries is perhaps not based on equal standards. Undoubtedly our maternal mortality statistics could be improved, but in this connection one should bear in mind that possibly there are factors influencing these figures which are not prevalent in those countries with which the United States is compared. It cannot be denied, however, that this country is credited with a puerperal mortality rate entirely too high. Inquiry shows that this rate is pretty evenly distributed, and that hospital confinements are perhaps as culpable as those conducted in the homes; for, with the increase in hospital cases, we have not apparently been favored with any great improvement in such causes as the septic rate.

Admitting the differences in the underlying factors of obstetric practice in Scandinavia and the United States, can these be accepted as the sole cause of the discrepancies in point of maternal morbidity and mortality which seem to distinguish the vital statistics of the two nations? In one instance, as already noted, there is a homogeneous racial stock, sound in most respects, especially as regards the admittedly low incidence of pelvic deformities—a people otherwise physically well developed to favor natural labor. Yet there is much tuberculosis, anemia, syphilis and other diseases, and hospital reports list many of the complications of pregnancy which prevail in our own statistics. But there are not as many cases of sepsis; there is a less number of operative deliveries, and apparently less "meddlesome midwifery." For example, in a service of 3,148 cases during 1925 at the Stockholm Lying-In Hospital, there were only 109 forceps cases, fifteen versions and two cesarean sections, one for flat pelvis and one for placenta praevia, or about 4 per cent of operative deliveries; and this applies to the entire country. In addition, out of 471 cases of abortion, operations were performed in only ninety-one, the others ending spontaneously. About the same incidence was found to apply in Norway, as shown in figures obtainable for 1917-1918.

How many hospitals in this country can point to an equally low operative incidence? There are no comprehensive figures for the country, much as they are needed. All that can be done is to refer to certain isolated hospital statistics and occasional state records. In Massachusetts, for example, in 1922, there were 1,161 cesarean sections in 90,904 births, or thirteen in every thousand. In a series of 100 cesarean cases carefully studied [1] which terminated fatally, twenty-five were in toxemias and thirty-seven in dystocia. The general operative incidence in our hospitals has been shown to vary from 10 to 30 per cent, as compared with an average of 4 per cent in the several Scandinavian countries.

We have shown in our own country what advanced prenatal care will do to reduce the mortality from toxemia, from endocarditis and from other preventable complications of pregnancy, but we have not sufficiently reduced the occurrence of sepsis and deaths from operative deliveries. Of what use is all the prenatal care if the mother succumbs to a fatal septicemia or to shock from hemorrhage? In several of the Scandinavian hospitals, I was frankly told of the envy with which their directors regard our splendidly organized prenatal work, which it is their ambition to emulate. They feel convinced that this would result in an even greater reduction in their mortality rates attending childbearing.

What can we do to bring our mortality figures associated with pregnancy to the level of some of these favored nations? Admittedly our fault is largely centered in the high septic rate, for the other complications of pregnancy show constantly improved figures. In 1921, in the U. S. registration area, two fifths of all the deaths were due to septicemia: 6,057 out of 15,027, or 40.3 per cent. But where does the high septic rate come from? This would be of interest to determine, and it seems to me that no better suggestion could be made than that this section of the American Medical Association, through its membership in the Joint Committee on Maternal Welfare, inaugurate and participate in a careful inquiry to determine if possible why pregnancy and labor are attended with such large risks in this country. And even in the United States the midwife has been credited with better results so far as sepsis is concerned than has the physician. This comparison, whether justified or not, is featured in much of the propaganda for so-called better obstetric care, and made a basis for condemning the physician. But should this be made an argument for the development and elevation of a midwife system to the position which this occupies in Scandinavia and other European countries? I would hesitate to recommend this without reservations, but somewhere and somehow a solution must be found. I believe that it lies in the domain of the medical profession to do this by means and methods which have already been detailed by others who have spoken and written on this topic. The development of a better system of obstetric care should not be left to lay bodies or governmental agencies, and the invasion of a purely medical field by such agencies can be ascribed only to an attitude of laissez faire on the part of the physician. Interest in better obstetric care should be a matter of community development; of better teaching of obstetrics to students, especially on the clinical side, and of readily available postgraduate instruction for the progressive physician in order that he may retain his interest in this important branch of medical practice. This will soon react in a desire for better attention in pregnancy on the part of the public, with a corresponding elevation in the dignity of the obstetric attendant.

Whether a midwife system in this country shall be a part in this scheme is for the profession to decide. A comparatively small number of states have presented data concerning the practice of midwifery, but the majority are ignorant of the number as well as the qualifications of midwives working within their boundaries. When this negligence is compared with the carefully supervised and studied system in Scandinavian countries to which I have referred, the necessity for reform becomes at once evident, if we are to retain this type of medical practice.

That it still constitutes a formidable element is evident from the report for 1924, for example, of the Bureau of Child Hygiene of the New York Health Department. In this the total number of registered midwives given is 1,309, who reported 25,833, or 19.8 per cent, of all of the births. This was a decrease of 1.5 per cent over the previous year. It is asserted in this report that no cases of puerperal sepsis developed among these patients, but there were six instances of ophthalmia neonatorum. Similar figures are obtainable from other centers, but little definite information is at hand for large sections of the United States. Ignoring the midwife, as is done in certain states, simply results in what might be denominated "bootlegging"; the half-hearted and incomplete teaching of midwives in another state is unsatisfactory and insufficient. If, as is claimed, the midwife is absolutely essential in certain rural districts and among the foreign born of our large cities, then some steps must be taken to provide for her proper education and subsequent control and supervision. The rules that now govern her activities in various states insist, among other things, that she shall have certain qualifications, which, as far as I can learn from inquiry, can be secured, with one exception, only outside this country. If midwife attendance is an objectionable form of medical prac-

1. Commonwealth, Boston **10**: 111, 1923.

tice, the profession must gird its loins and find a substitute, or continue to be saddled with the odium of unjustified mortality figures in childbearing which are not in accord with the achievements in other fields of American medical practice.

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