Obstetrics and the general practitioner

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I have no hesitation in saying, after more than thirty years experience as student and practitioner that midwifery is the most anxious and trying of all medical work, and to be successfully practised calls for more skill, care, and presence of mind on the part of the medical man than any other branch of medicine.¹

It is often said that before the early eighteenth century childbirth was a social rather than a medical occasion, for it was managed at home almost exclusively by midwives and a supporting group of female friends or "gossips." Men were rigidly excluded except on the rare occasions when a medical practitioner was called because of a serious complication. Then, in around 1730-40, public attitudes began to change. Increasing numbers of women chose to engage a medical man rather than a midwife to attend their confinement, and obstetrics became an important part of routine medical practice. As a result medical practitioners competed with midwives for attendance at ordinary confinements and acquired the extensive practical experience of normal labours that forms the whole basis of obstetrics.²⁻⁴ The practice grew so rapidly that by the end of the eighteenth century virtually all of the surgeon-apothecaries (the predecessors of general practitioners) had adopted "man midwifery" as a central part of their practice.

Matthew Flinders (1750-1802), a surgeon-apothecary who practised in Donington, Lincolnshire, was a typical example. As a young man bent on establishing his practice he attended 53 women in labour in 1775, and a series of patients in March, which included "a very lingering labour" from eight o'clock in the evening until five o'clock the next afternoon that left

him "much fatigued as I had not been in bed nor my boots off for 40 hours." Nothing worried Flinders so much as a lost fee. He fretted as he waited at the bedside from the onset to the end of labour at the prospect of other patients who, tired of waiting for him, took their troubles elsewhere; but he never doubted that midwifery came first.⁵

This illustrates a point that is often overlooked: until the present century midwifery, or obstetrics (the two terms are interchangeable), was perceived as a branch of general practice rather than a surgical specialty.⁶ Why, when there was an abundance of midwives, did practitioners take up this arduous form of practice with such enthusiasm?

The linchpin of general practice

It was not, as often suggested, because the use of the obstetric forceps became widespread from the 1740s that practitioners took up obstetrics; nor was it simply the fees. Money was important, but midwifery was an underpaid activity. In part it was the job satisfaction that is inherent in obstetrics and in part the growth of medical knowledge and the belief, frequently expressed, that medical men could manage childbirth better than ignorant untrained midwives. Most of all, however, it was the conviction that "The successful practice of midwifery... at the outset of life as surely establishes a professional man's reputation as the contrary retards his progress."⁷ Midwifery was the surest way to establish a practice. "Deliver the babies and you will have the family as patients for the rest of your life," was an article of faith with general practitioners from the late eighteenth to the mid-twentieth century. In short, midwifery was the linchpin of general practice and the essence of the concept of the family doctor.^{6,8}

But it was not an easy way to make a living. Most general practitioners had moments when they hated midwifery: the long hours, loss of sleep, low fees, sudden crises, and, worst of all, the appalling experience of a maternal death, for which they were likely to be blamed. As a general practitioner explained in 1809:

The unfortunate termination of a medical or a surgical case will in time be forgotten; but the *unlucky* death of a midwifery patient (and chance has too great an influence in these cases) begets the greatest distrust and often ruins his reputation and future prospects for ever.⁹

Similarly, the irascible Dr Robert Rentoul complained in 1892:

When a hearse follows us into a street after a confinement it is most likely to ruin our practice in that particular street... we are accused first... It comes to this that practically every doctor who loses a confinement case receives very great blame, no matter whether he deserves it or not, very great blame indeed.¹⁰

Yet in spite of these penalties general practitioners knew they could not, dare not, refuse all midwifery. Their practice would dwindle away if they did.

"The Sick Room" by Emma Brownlow (1864)

A "lying in" ward in the Royal Free Hospital, circa 1910

Because midwifery was neither physic nor surgery it was despised and rejected by the College of Physicians and the College of Surgeons. Midwifery was not their responsibility. It was not "scientific." It was not a proper branch of medicine. Some said that it was women's work that should be left entirely to midwives. Others saw it as an integral part of general practice, and both colleges were determined to put as much distance as possible between themselves and the upstart general practitioners.⁶

Obstetrics in the nineteenth century

Nevertheless, a minority of physicians and surgeons in the nineteenth century recognised the importance of obstetrics, and some, such as William Smellie, William Hunter, Thomas Denman, Francis Henry Ramsbotham, Robert Lee, and James Young Simpson, devoted most of their lives to laying the foundations of the discipline in Britain. We must not forget, however, that even at the end of the nineteenth century those who could be considered as consultant obstetricians in the modern sense were few and those with hospital appointments fewer still. Less than 8% of the fellows of the Obstetrical Society of London in 1880 held a hospital appointment, and none practised midwifery alone. "If anyone tried to do so, I think it would kill him very soon," said James Aveling in 1892. At the end of the nineteenth century only 0.3% of all births took place in voluntary hospitals and 1% in poor law hospitals. The rest were home deliveries, virtually all under the care of midwives or general practitioners.¹⁰

There were few advances in the standard of obstetric care between the 1780s and the 1880s apart from anaesthesia, which was introduced in 1847. The standard of teaching of medical students was probably worse at the end of the nineteenth century than it had been at the beginning. Few doctors were concerned with standards of care throughout the country until William Farr (compiler of abstracts at the General Register Office from 1838-79) drew the attention of the public and the profession in the 1870s to three disturbing features that together were a damning indictment of the practice of obstetrics.

Firstly, he showed that the national maternal mortality was disturbingly high and not improving; secondly, that many maternal deaths were preventable but not prevented; and thirdly, that the hospitals that had become so successful in medical and surgical care and medical education were, as far as obstetrics was concerned, little short of a disaster.¹¹ The last was an international problem. Lying in hospitals in London, Edinburgh, Berlin, Paris, Copenhagen, New York,

and Boston all suffered from terrible recurrent epidemics of puerperal fever. Hospital mortality, which was often five or even 10 times as high as it was in home deliveries in the worst of slums, rose to unprecedented heights in the second half of the nineteenth century: a feature, incidentally, which had nothing to do with the selection of high risk cases.

These were profoundly important revelations. The death of a mother had always been a personal and private tragedy. For more than 100 years maternal mortality had been used as a means of auditing certain obstetric techniques. Through the work of Farr and a few others, however, maternal mortality became a matter of the public health which, more than any other consideration, shaped the evolution of obstetric care throughout the Western world and in particular the role of the general practitioner.

Antisepsis, intervention, and obstetric education

Public concern was heightened when the techniques of antisepsis and asepsis came into general use in the 1880s. Maternal mortality in the leading maternity hospitals all over the world fell rapidly from levels way above to levels way below the national level.¹² In some countries, however, including Britain, the maternal mortality in home deliveries either rose or remained constant. The reason, it seemed at the time, was clear. It was the "the ridiculous parody which in many practitioners' hands stands for the use of antiseptics".¹² In Britain and the United States general practitioners were held responsible for the high and largely preventable maternal mortality. Investigations disclosed poor antisepsis practice and gross incompetence—and something new: large scale unnecessary interference in normal labours.

In the first half of the nineteenth century, obstetric practice was for the most part extremely conservative. Intervention in labour was rare. Teachers such as William Hunter, Thomas Denman, and William Osborn advised their students to leave their forceps at home lest they use them from impatience, and they boasted that their own were rusty from disuse. Be patient, they said, and trust in the powers of nature. Their caution was excessive and led to a wild swing of the pendulum during the second half of the century. Intervention on a massive scale became fashionable in Britain and also in the United States, and fashionable is the right word for there was little scientific basis for the change, which was described at the time as a "sort of revolution in the use of the obstetric forceps."¹³ In spite of all the talk of improvement the general standard of midwifery got worse, not better, as rates of use of forceps in ordinary home deliveries as well as hospitals rose from early nineteenth century levels of 3% or less to 20%, 30%, and even 50% in the first third of this century.⁶

The English obstetrician James Young, addressing an audience in the United States in 1936, spoke of a prolonged and dangerous "orgy of interference" in which the British perpetrators were general practitioners and the American ones hospital obstetricians. It was, he said—and there is much to support his view—the lethal combination of poor antiseptic practice, unnecessary intervention, and, above all, poor

1870s

- 1870: Gustave Fritsch and Julius Hitzig begin elucidating the functions of the cerebral cortex; the work was to be extended in the next few years by David Ferrier
- 1876: Robert Koch establishes the cycle of anthrax infections in cattle

FIG 1—Maternal mortality per 1000 births in the United States, England and Wales, and The Netherlands, 1900-70

FIG 2—Percentage of home deliveries in the United States, England and Wales, and The Netherlands, 1930-80

obstetric education that caused the high maternal mortality in both countries.¹⁴ Numerous authorities, including Elizabeth Garrett Anderson,¹⁵ Whitridge Williams of Baltimore,¹⁶ and Sir Dugald Baird of Aberdeen,¹⁷ described in scathing terms the scandalously low standard of obstetric education from the late nineteenth century to the 1930s. The root cause of bad obstetrics lay in the attitudes of the examiners, the consultant physicians and surgeons who dominated the teaching hospitals and frequently despised obstetrics.

Maternal mortality in the twentieth century

Maternal mortality became a public scandal in the early twentieth century. The undiminished level stood in stark contrast to falling levels of infant mortality.¹⁸⁻²⁰ In the 1920s some 2500 women in Britain and an estimated 20 000 in the United States died every year of puerperal causes (fig 1). In both countries it was estimated that at least 40% of these deaths were preventable. The interwar period was crucial in shaping the systems of maternal care we have today, although the policies differed in different countries.²¹

The Netherlands, with one of the lowest levels of maternal mortality in the world, had least reason for public anxiety. It continued much longer than anywhere else with its tradition of home deliveries by well trained midwives (fig 2). The United States, on the other hand, was stung by the revelation that it had the highest maternal mortality of any developed country.

From the 1920s obstetricians launched a series of astonishingly virulent attacks against the midwives and general practitioners. These attacks may not have been justified, but they were effective. In urban areas of the United States over 95% of women were delivered in hospital by 1948 (fig 2).

In Britain general practitioners were blamed almost exclusively for poor obstetric care during the interwar period. They were, however, a powerful and independent group of doctors who could not be prevented from delivering babies. In any case for all deliveries to take place in hospital and be attended by obstetricians was out of the question. There were not enough hospital beds or trained specialists. It was not until 1955 that more than half of the births in Britain took place in hospital (fig 2). In the interwar period midwives and general practitioners had to provide the backbone of a national maternity service. Hospitals were reserved for selected "social" cases, high risk cases, and emergency admissions.²¹ The College of Obstetricians and Gynaecologists (founded in 1929) endorsed this policy and set out to create a core of highly trained specialists holding the MCOG (MRCOG) and to raise the standard of obstetric care in general practice through the DCOG (DRCOG), by which obstetrics could be confined to general practitioners "who have had special experience in obstetrics and are specially interested."²²

Then, in the mid-1930s, an unexpected change occurred of such magnitude and importance that it revolutionised the whole of maternal care in the developed world over the past 50 years.

The decline in maternal mortality

In 1934 the maternal mortality at 4.41 per 1000 births was exactly the same as it had been in 1898. In 1935 it began to fall, and this time the fall continued. Most believed that maternal mortality would level out when it reached the "irreducible" minimum of one death per 1000 deliveries.²³ In fact this level was reached sooner than expected: in New Zealand it was reached in 1947, in England and Wales and the United States in 1948-9, The Netherlands in 1950, Belgium in 1951, and Australia in 1951-2. Moreover, it was not an irreducible minimum level. In a way that no one had dreamt of, let alone predicted, the decline in maternal mortality showed no sign of slowing down. The table and figure 1 show that the widely separated trends in various countries in the 1920s and 1930s had converged by the 1950s. In view of the extraordinary plateau of

Maternal mortality per 1000 births in the United States, England and Wales, and The Netherlands, 1920-60

Year	United States	England and Wales	The Netherlands
1920	6.89	4.33	2.40
1930	6.36	4.40	3.33
1940	3.76	2.61	2.35
1950	0.83	0.87	1.05
1960	0.37	0.39	0.37

maternal mortality and the wide international differences that were seen before the second world war the steep sustained fall over the past 50 years is probably the most remarkable mortality trend of the twentieth century. People aged 55 or over today may not appreciate that, irrespective of social class, the risk of their mother dying in childbirth when they were born was about 50 times as high as it was for their daughters in the late 1980s.^{24 25}

What has this to do with obstetrics and the general practitioner? The answer is a very great deal. The reasons for the decline in maternal mortality after 1935 are complex. Few, however, doubt that major factors were advances in therapeutics, a better standard of care

for all mothers and children, and the growth of obstetrics as a fully fledged hospital specialty.²⁶

In retrospect it can be seen that the early phase of the reduction in maternal mortality was relatively easy. It was achieved by the careful application of quite simple techniques, especially blood transfusion and the use of antibiotics, helped by the decline in the virulence of the streptococcus and the improvement in the health of childbearing women. By the 1960s, however, it seemed to many that the remaining causes of maternal death could be dealt with only by the increasing use of more complex techniques and equipment and the specialised skills found only in hospitals. Whether this view is correct is still debated. Some point to the success of the Dutch with their high proportion of home deliveries. But The Netherlands is a small country with excellent roads and a very large number of hospitals, so that everyone's home is less than half an hour from a hospital.²⁷ Also it has a highly efficient and integrated system of obstetric care.

Although the model of The Netherlands might have been used in other countries such as Britain, most obstetricians saw the dramatic reduction in maternal mortality as the direct consequence of the advance of their specialty and the end of routine domiciliary deliveries by general practitioners. Certainly it is a view that has dominated policies on maternal care in most Western countries over the past 50 years. Now is a good time to look back and ask whether the decline of the general practitioner obstetrician was inevitable and whether it was desirable.

General practitioners under the NHS

In the interwar period midwifery in general practice was a very parochial activity and general practitioners

"Mother and Child" (circa 1910) by A Neville Lewis (1895-1972)

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tended to be isolated and a law to themselves. While there were many excellent, careful, conscientious general practitioners with extensive experience of obstetrics there is no doubt that there were others without these qualities. Faced with a difficult delivery they usually called in another general practitioner rather than an obstetrician. Sometimes they had no choice: as recently as 1933, for instance, there was no consultant obstetrician in the whole of the county of Gloucester.²⁸

When, at last, maternal mortality began to fall, the whole climate of obstetrics began to change. By the end of the second world war optimism was replacing the gloom of the 1930s. With the introduction of the National Health Service, the number of consultant obstetricians and maternity beds increased all over the country. Obstetrics, no longer a despised specialty, would soon be able to claim, justly in my view, a greater degree of success than any other branch of medicine.

The general practitioner obstetrician now had only a minor role. Parochialism and isolation were replaced by team work. Maternal care became an activity shared between the primary health care team and departments of obstetrics. More and more women were delivered in hospital as the criteria for hospital admission were expanded to include every mother except those in perfect health and with a totally normal obstetric history in their second and third pregnancies. When these were included as well the role of the general practitioner was reduced to shared antenatal and postnatal care; which, as some said with a touch of bitterness, was similar to being excluded from a party for which you had done most of the preparations and some of the clearing up.

Since the 1960s the scope and standards of practice in other aspects of primary care have changed so rapidly that few general practitioners today have the time, the energy, or the desire to reclaim the lost territory of intrapartum care. Although there are few pleasures in general practice to equal the delivery of a much wanted baby, there are, apart from the minority who work in general practitioner maternity units, few general practitioners today who want to undertake deliveries.

Nevertheless, debates about home deliveries and the roles of the general practitioner and community mid-

A Provident Maternity Club
HAS BEEN STARTED AT
**THE MOTHERS' AND
BABIES' WELCOME,**
Chalton Street, N.W.

And expectant Mothers are earnestly invited to join.

Its object is to help such Mothers to lay by small sums of money week by week in preparation for the coming confinement, so that, in addition to SKILLED ATTENTION at child-birth and proper BABY CLOTHES for the infant, they may also have :—

1.—Help in the Home.
2.—Extra Nourishment.

1.—A Mother needs ENTIRE REST for AT LEAST A FORTNIGHT after child birth, and should do NO WASHING OR SCRUBBING for a MONTH. For WANT OF HELP in the Home, Mothers constantly get up too soon, thus often causing themselves life-long ill-health.

2.—Mothers, after confinement, need plenty of nourishing food and drink, such as Milk, Gruel, etc. (NO BEER or STOUT, and particularly NO SPIRITS.) For want of extra nourishment Mothers often lose their milk, or it gets so poor that the baby is not satisfied. Then foolish people who are very IGNORANT about babies, say "Feed the Child"; if they were wise they would say "FEED THE MOTHER."

The Management of the "Welcome" will add a Penny to every Shilling saved (under certain conditions), and the earlier expectant Mothers join, the greater the benefits they receive.

The Lady Superintendent is at the "Welcome" every day from 1.30 to 2.30, and will gladly give particulars of Rules and Benefits.

In 1907 some mothers saved for their postnatal benefits

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wife continue. Today maternal survival is taken for granted. Mothers expect a perfect baby from a straightforward and satisfying delivery. Some complain that delivery in a large hospital is an unsatisfying experience, too impersonal, too technological. They would rather give birth in familiar home surroundings with their family close at hand. So, in Britain and America in the

1970s and 1980s, there is an increasing demand from a small but vocal group of mostly middle class women for a greater degree of personal care and even for a return to home deliveries.^{29 30}

Legal actions

Even if general practitioners as a whole were willing and able to meet this demand there is the question of litigation. Legal actions against obstetricians were virtually unknown during the "orgy" of unnecessary interference and high maternal and fetal mortality in the 1920s and 1930s. Ironically, however, the number of cases of litigation and the size of insurance premiums for obstetricians on both sides of the Atlantic have risen as spectacularly as maternal and perinatal mortality and morbidity have fallen. This alone would be enough to deter general practitioners from returning to attending home deliveries.

In The Netherlands many home deliveries still take place under the sole care of the independent midwife.²⁷ An increase in the number of home deliveries by midwives is said to be occurring on a small scale in the United States. A similar trend is also possible in Britain. The status of the British midwife today is probably higher than it has ever been, and I suspect that most women would prefer a midwife to a doctor for a normal delivery. But I doubt if the tide will turn. The roles of the general practitioner and the community midwife in the provision of antenatal and postnatal care will remain. But the days when general practitioners routinely delivered their patients at home and obstetrics was truly the linchpin of general practice have probably gone for ever.

The Gross Clinic (1876)

Thomas Eakins (1844-1916; American)

Thomas Eakins's masterpiece was initially rejected by the Philadelphia Centennial Exhibition, for which it was painted, as being distasteful and obscene. Instead it had to be shown in the medical section. Eakins's interest in realism had led him to study anatomy with Samuel Gross, professor of surgery at the Jefferson Memorial College in Philadelphia, and this picture was intended to be a portrait of him at work rather than a genre picture. Of the 21 figures in the audience, all taken from life, only two remain unidentified. Fascinated by the play of light, Eakins has used it here to dramatic effect. As the eye moves from the blurred surgical instruments in the foreground light floods in to disclose the incision in the patient's leg, then Dr Gross's brilliantly lit head, and, finally, the picture's focus: the bloodstained scalpel. The bright patches of light are made even more effective by the general sombreness of Eakins's palette. Possibly the inspiration for his masterpiece was Rembrandt's "Nicolas Tulp Demonstrating the Anatomy of the Arm." It also may owe something to Joseph Wright of Derby, whose work he could have known from engravings.

CLASSIC OF THE DECADE

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