## Obstetrical Practice in the Age of Mozart

Mozart reputedly wrote his String Quartet in D Minor (K421) during the first labor of his wife Constanze. Although there is no reference in his surviving letters, Constanze is said to have confirmed this in an interview with the English couple, Vincent and Mary Novello in 1829. This possibility is discussed in a recent paper by two obstetricians from Amsterdam (Lammes and van Mourik 42-46).

Mozart died on the 5th of December 1791. The closest gravestone to that date in the old Burying Ground in Halifax is one of William Petty who: "departed this life, September 10th 1791, aged 40 years"—just five years older than Mozart. In contrast to Mozart, William Petty had a single, marked grave. (See Figure 1.)

Mozart was one of seven children born to his parents over a nine year period, of whom there were two survivors. This was consistent with the average survival in that era. All were born in Salzburg and the five who died did so within a few days or weeks of birth. Only Mozart and his older sister, Nannerl, survived. (See Table 1.) Mozart's father, Leopold, writing to his friend and publisher Johann Jakob Lotter on the 9th of February 1756 described his son's birth:

... moreover, I must inform you that on 27 January, at 8 p.m., my dear wife was happily delivered of a boy; but the placenta had to be removed. She was therefore astonishingly weak. Now, however (God be praised) both child and mother are well. She sends her regards to you both. The boy is called Joannes Chrisostomos, Wolfgang, Gottlieb. (Deutsch 9)



Figure 1



Figure 2

Gravestones in the old Burying Ground, Halifax.

From the above it can be inferred that Mozart's mother had a retained placenta and post partum haemorrhage. However, it is also possible that the manual removal of the placenta was carried out as a routine procedure, as was the practice of some midwives in that era.

Mozart married Constanze Weber on 4 August 1782. He was 26 years old and she 20. Over nine years of marriage they had six children, all born in Vienna. Like the children of Mozart's parents there were only two survivors, Karl Thomas and Franz Xaver Wolfgang. The four who perished did so in early infancy and the causes were variously recorded as "intestinal cramps," "suffocation" or just plain "cramp." (See Table 2.) This type of infant mortality was quite common in the eighteenth century. One gravestone from the old Burying Ground in Halifax shows a similar tragic loss. (See Figure 2.) Here is recorded the death of a woman age 37 years and four children at or less than two years of age. There are several stones in the Halifax graveyards of this era reporting similar family losses. Many of the gravestones in Nova Scotia record mothers and their infants dying within a short time of childbirth. The one shown in Figure 3 from Barrington in Shelburne County is particularly poignant. It was a dangerous time, both to be born and to give birth.

Although hospital medical schools were established in Britain and Ireland during the eighteenth century, much of the clinical instruction was private. Two of the most prominent private teachers were the Scottish man-midwives who went to London-William Smellie and William Hunter. They were prominent among man-midwives in establishing some scientific basis of the mechanisms of labor and its management in the mid 1700s. From 1741 Smellie taught 280 courses on midwifery to over 900 students. He published three books, including his Treatise on the Theory and Practice of Midwifery, along with a set of anatomical tables, beautifully illustrated by Jan van Rymsdyk. William Hunter, initially a pupil of Smellie's, was the more sophisticated and cultured of the two famous Hunter brothers and very influential in the practice and teaching of obstetrics in London during Mozart's time. He produced, over a thirty year period, a beautiful anatomical atlas, The Anatomy of the Human Gravid Uterus, also illustrated by Rymsdyk. Private schools for Midwifery instruction were set up in Paris by Grégoire senior in 1720, and in Vienna by 1748. University chairs of midwifery were established in Edinburgh and Dublin (Garrison 398-400). The famous Viennese hospital—

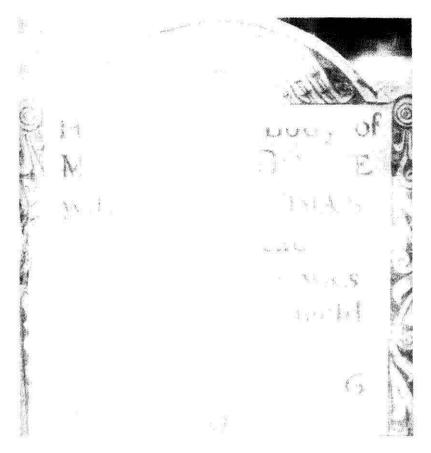


Figure 3. Gravestone in Barrington, N.S. From Life How Short, Eternity How Long: Gravestone Carving and Carvers in Nova Scotia by Deborah Trask.

Allgemeines Krankenhaus was founded in 1784. It was at this hospital 60 years later that Ignac Semmelweis did his epic work, reducing the maternal mortality caused by puerperal sepsis from 10% to 1.3%, by the simple expedient of having the physicians, students and midwives wash their hands between cases (Garrison 436). The first medical instruction in midwifery in North America was given by William Shippen who graduated from Edinburgh and went to work with Smellie. He returned to North America as the first professor of anatomy and surgery when the medical college was established in Philadelphia in 1765 (Garrison 378).

There was considerable antagonism from some of the traditional midwives to the encroachment, as they saw it, of physicians or manmidwives upon their territory. William Smellie often came under fire from prominent midwives. Through his classes and writings he was seen to have a great influence in the training of man-midwives and thus posed a threat to the supremacy of the midwife. One such prominent midwife in London at the time, Elizabeth Nihell, described Smellie as "a great horse God-mother of a he-midwife." Smellie, while not lowering himself to this slanderous level, did outline the characteristics required by midwives and nurses in his *Treatise*: "Nurses, as well as midwives, ought to be of a middle age, sober, patient and discreet, able to bear fatigue and watching, free from external deformity, cutaneous eruptions and inward complaints, that may be troublesome or infectious" (Smellie 450).

We have little record of the type of obstetric care available in Nova Scotia in the eighteenth century. The practice in nearby Maine was probably similar. A midwife, Martha Ballard, kept a detailed diary of her life as a midwife from 1785 to 1812 among the six townships along the Kennebec River in the area of what is now Augusta. Laurel Ulrich has used this diary to construct a unique account of midwifery in this area. Martha Ballard gave birth to nine children and lost three to diphtheria. Qualifications for being a midwife then seemed to be that one had reached middle age and having given birth repeatedly. As it was put in one eighteenth-century midwifery manual written by Sara Stone: "There is a tender regard one women bears to another, and a natural sympathy in those who have gone thro' the Pangs of Childbearing: which, doubtless, occasion a compassion for those that labour under these circumstances, which no man could be a judge of" (14).

Martha Ballard's diary records 814 deliveries over the 27-year period. She had a remarkably good record. She noted five maternal deaths, a rate of six per thousand. At that time in Europe the maternal death rate varied from 6-40 per thousand. All of the deaths she reported occurred post partum: three probably due to puerperal sepsis, one to bad measles at the time of birth and one due to eclampsia.

An article in the *Nova Scotia Historical Review*, by J. E. Kennedy, briefly reviews the life of Jane Hamilton, a midwife in Truro, Nova Scotia in the mid-nineteenth century. Again her qualifications were that she had given birth seven times, with two infant deaths. At the age of 46

she did her first delivery for a neighbor and over the next 42 years delivered 876 infants until she retired at the age of 88. She listed each delivery with the date, the mothers name and the sex of the child. She did not record any other details and did not report any maternal deaths.

The following advertisement in the Halifax *Royal Gazette* of 27 April 1787 indicated that both midwives and man-midwives were active in Halifax at this time: "Mrs. Smith, sworn Midwife from London: Begs leave to inform the public, that she is taking a house in Albemarle Street and will pay the greatest attendance and care to any that please to employ her."

She also mentions at the bottom of the advertisement that she takes in ladies' and gentlemen's washing and sews a number of delicate articles in the cheapest manner! It was common in those days for midwives not to be able to make a full living in midwifery and they often resorted to additional work. Indeed this was also true of many physicians. An advertisement from the medical competition appeared in the same issue of the *Royal Gazette* as follows:

Notice is hereby given to the Publick that they may be attended during any disorder by a regular bred surgeon and apothecary, with advice gratis, with medicines at the same rates as in England, and without any charge for visits, unless sent for after the nine o'clock gun firing. Likewise all persons under necessity of employing a man-midwife may be served by:

Their most humble servant,
Henry Meriton.
Surgeon, Apothecary and Man-midwife;
Late a dresser in St Thomas's Hospital London and pupil to the well known man-midwife Dr Smelley.

Thus, despite the different spelling of his name, we know that William Smellie's influence extended, at least through one pupil, to Halifax.

Time will permit only the most superficial look at some of the main obstetrical threats to mother and infant in the time of Mozart. We have seen that the perinatal and infant mortality was appalling by modern standards. It seems unlikely that Constanze breast-fed her infants for very long, if at all. She and Mozart were in Salzburg, and their first infant son was with a foster mother in Vienna, when he died at eight weeks of "intestinal cramps"—presumably gastroenteritis (Deutsch 218). Whether

the infant was artificially fed or partially fed by a wet nurse, we do not know. Certainly at that time it was common practice among the wealthy to have their children fed by a wet nurse. Often illegitimate children of young women were placed in a foundling hospital (basically an orphanage) and the mother would then seek employment as a wet nurse. This provided a much better income than she could expect from most other sources.

The mortality in the foundling hospitals at that time was dreadful. The Paris Foundling Hospital from 1771 to 1777 reported an 80% mortality while that of the Dublin Foundling Asylum from 1775 to 1796 was 99%. The ratio of death of dry-fed to breast-fed infants was 3 to 1 (Garrison 402).

The following advertisement placed in the Halifax *Royal Gazette*, on 10 January 1792 reveals that professional wet nurses were available in Halifax at this time: "A young woman with a good breast of milk would be glad to take a child to suckle. Enquire of the printer."

Proof of the contagious origin and prevention of puerperal fever is attributed to Semmelweis and his monumental work in the Vienna Allgemeines Krankenhaus in 1848. In fact the first recorded epidemic of puerperal fever was in Leipzig in the mid-seventeenth century and the disease was certainly present in Mozart's time. This was largely a disease of lying-in hospitals or of midwives with busy practices who might transfer the infection from case to case. Indeed, according to Garrison, hospitals in the eighteenth century "were in respect of cleanliness and administration at the lowest level known in the history of medicine. Even physicians declined hospital services as equivalent to a sentence of death" (Garrison 399).

We have seen that even with our midwife from Maine, Martha Ballard, who had such an excellent record, it is likely that three of the five maternal deaths she attended succumbed to puerperal sepsis.

Pharmacological pain relief in labor was not available though many patients had recourse to the age old remedy of alcohol: "We find shee has an inclination to drink rhum. She drank about 1 quart. Her illness (labour) increast—was delivered at three hour morn of a son, her first child" (Ulrich 184).

The final aspect of obstetrics in Mozart's era that I will cover is obstructed labor or dystocia. In many ways it was the management of this

condition that separated midwives from the physician man-midwives. When the fetus failed to descend and deliver, the midwife had the choice of either turning the fetus and extracting it by the feet or seeking aid from the man-midwife. The latter would be called in to use destructive instruments, usually the crotchet or hook, to perforate the fetal head and make it small enough to allow delivery. Caesarean section, while it had been described in rare cases in that time, was really not an option as the risk of death for the mother was virtually 100%, and no physician was willing to accept this responsibility.

If the baby's head had descended low into the pelvis the option of turning the baby was not feasible and the only choice was to wait. Destructive instruments were not used until the attendants were as sure as they could be that the baby was dead. Remember at this time there were no stethoscopes to listen for the fetal heart.

Imagine then, the enormous breakthrough represented by the obstetrical forceps invented by Peter Chamberlen—the secret that was kept in his family for four generations. Forceps were available and used by a few man-midwives in the time of Mozart. Their design and the rules for their use were refined by Smellie in Britain and André Levret in Paris. The latter was a very sophisticated, well educated and prominent obstetrician who moved in the top levels of Parisian society. I have always liked the story of his being summoned to deliver the Dauphiness, mother of the future Louis XVI of France. Apparently when he arrived a lady-in-waiting said to him, presumably in haughty French tones: "You must be pleased, Monsieur Levret, to be called to deliver the Dauphiness. That will make your reputation." To which he replied: "Madame, if my reputation were not already made, I should not be here."

I would like to leave you with some sense of the importance of the invention of forceps in that time by quoting from Edmund Chapman, one of the leading teachers in British obstetrics:

A surgeon of good character told me he had been lately called to a gentlewoman in the country where a child fell with its head into the vagina very low and there continued, after considerable time past in great pain, without the least advance. A man-midwife upon this was sent for, who knowing the use of the hook only, and being very unwilling to destroy the child let it remain in this condition for *several days* refusing to perform the operation. At length a women midwife delivered her of a

dead child; but the parts were, by the violent inflammation, and the long continued pressure, so far mortified that my friend told me that he had not the least hopes of the gentlewomen's recovery. (xxiii-xxiv)

Chapman then goes on to extol the virtues of the forceps, which he was among the first to illustrate in his book (92). One can imagine the huge advance that forceps provided as an alternative to the ghastly scene outlined above. Indeed by overcoming the obstructed labor the forceps would protect the woman's anatomy from the continued destructive pressure of the fetal head, shorten the duration of her pain and deliver the infant intact before it died of asphyxia.

Constanze Mozart, of course, had no such problem with her labors. Her first labor lasted only five hours, as we can see from the following extract of a letter written by Mozart to his father the day after Constanze delivered their first child on 17 June 1783:

I congratulate you, you are a grandpapa! Early yesterday morning, the 17th, at half past six, my dear wife was happily delivered of a fine, big, sturdy, fat boy! The pains began at half past one in the morning, so it was over with all rest or sleep for either of us that night! By four o'clock I sent for my mother-in-law, and then for the midwife. By half past six all was over. (Anderson 851)

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TABLE 1

MOZART AND HIS SIBLINGS

	Born	Died	Age
Joannes	18.8.48	2.2.49	5 months
Maria	18.6.49	24.6.49	6 days
Maria	13.5.50	27.7.50	11 weeks
Maria Anna "Nannerl"	30.7.51	29.10.1829	78 years
Joannes	4.11.52	2.2.53	13 weeks
Maria	9.5.54	27.6.54	7 weeks
Johann Chrysostom Wolfgang Gottlieb	27.1.56	5.12.91	35 years

TABLE 2

MOZART'S CHILDREN

3	Born	Died	Age
Raimund Leopold	17.6.83	19.8.83	9 weeks "Intestinal cramps"
Karl Thomas	21.9.84	1858	74 years
Johann Thomas Leopold	18.10.86	15.11.86	4 weeks "Suffocation"
Theresia	27.12.87	29.6.88	6 months "Intestinal cramps"
Anna Maria	16.11.89	16.11.89	1 hour "Cramp"
Franz Xaver Wolfgang	26.7.91	1844	53 years