

William Smellie (1697-1763)

William Smellie helped to incorporate scientific medicine into the process of childbirth in eighteenth century Britain. As a male physician practicing in childbirth and female reproductive health (man-midwife), Smellie developed and taught procedures to treat breech fetuses, which occur when a fetus fails to rotate its head towards the birth canal during delivery. Throughout his career, Smellie compiled a wealth of information about female anatomy in his writings. He modified medical technology such as the obstetrical forceps, an instrument used to maneuver the fetus during childbirth. Smellie's techniques and improvements on forceps alleviated pain in women giving birth, mitigated complications during birth, and reduced infant mortality rates.

Smellie was born on 5 February 1697 to Sara Kennedy and Archibald Smellie in the parish of Lesmahagow in Lanark, Scotland. Smellie had one older sister, Beatrix, who died in infancy. Smellie's father taught at the local school and performed clerical duties at the church. Smellie received his education at a local grammar school in Lanark. After completing his education at the grammar school, Smellie pursued a career in medicine.

During the eighteenth century, many prospective physicians in Scotland received medical training through apprenticeships, so in 1714 Smellie began an apprenticeship with William Inglis, who prepared and sold medicine in Lanark. Following his apprenticeship Smellie studied with surgeon John Gordon in Glasgow, Scotland. While there, Smellie befriended Tobias Smollett, a novelist, who later assisted Smellie in writing *A Treatise on the Theory and Practice of Midwifery* the first edition of which was published in 1752, which compiled childbirth cases and observations over the course of Smellie's career. After completing his surgical apprenticeship by 1720, Smellie worked as a naval surgeon aboard the HMS Sandwich, a ship of the Royal Navy. Two years later, Smellie returned to Lanark to establish his own medical practice. In 1724, Smellie married Eupham Borland, and they never had children.

While in Lanark, Smellie's medical practice struggled because the small rural town offered few patients. To supplement his income and afford basic provisions, Smellie also worked as a cloth merchant. Despite financial hardship, Smellie did not abandon his practice, but rather gained access to more patients by entering the field of midwifery. Smellie studied medical literature about pregnancy and childbirth procured from libraries and colleagues. To gain practical experience, Smellie assisted midwives in delivering infants. He then recorded his observations of labor and birth. Smellie's clientele grew, and by 1737 he devoted most of his time to practicing as a man-midwife.

Lanark offered little opportunity for Smellie to further his studies in midwifery, so in 1739 Smellie departed Scotland. He traveled to London, England, and then to Paris, France, to research recent techniques in obstetrics, particularly the use of obstetrical forceps to deliver newborns. By 1740, Smellie had returned to London where he opened a medical practice that provided discounted medical care to women of lower socioeconomic status, and where he taught courses on obstetrics. His students included William Hunter, an anatomist and physician from Scotland. Smellie's courses allowed students to further their studies in obstetrics at a low cost while also granting them licenses to practice. Smellie taught over 900 male practitioners between 1740 and 1750 using models that simulated fetuses and pregnant women's pelvises.

Due to the time Smellie devoted to teaching, by 1740 his practice primarily involved emergency calls about complicated births that required man-midwives to assist female practitioners (midwives). Despite receiving training in Paris on the use of obstetrical forceps to mitigate complicated labors, Smellie avoided using surgical instruments as an interventional tool in childbirth. By around 1742,

Smellie used forceps in his medical practice, but he'd had limited success with them.

In 1748, Smellie began to improve obstetric forceps. Obstetrical forceps, a metal surgical instrument that resembles tongs and consists of a handle for physicians to grip and two pincers (blades) to maneuver a fetus in the birth canal. After experimenting with traditional metal forceps, Smellie carved new forceps out of boxwood. He sought to cause less disturbance, pain, and fear in patients. However, Smellie's wooden forceps often broke, lacked durability, and performed below his expectations. He discarded the wooden forceps and redesigned a metal variety in 1749. Smellie's revised metal forceps had tapered tips on the blades to improve maneuverability of the fetus while inside the birth canal. In an attempt to decrease the pain frequently caused by metal forceps, Smellie sheathed the iron blades in leather coated with lard.

Although Smellie often refrained from using forceps on his patients, he found that forceps could help successfully deliver breech fetuses, thereby alleviating the risk of death to pregnant women and to newborns. Smellie received criticism from eighteenth century midwives regarding his use of forceps. Midwife Elizabeth Nihell, who feared the dangers of male physicians intervening in childbirth, compared Smellie to a butcher and described his forceps as fatal weapons.

In 1752, Smellie published the first volume of his book, *A Treatise on the Theory and Practice of Midwifery*. The book discussed female anatomy, records of his patients, and childbirth accounts of other midwives and physicians. Subsequent volumes included, *A Collection of Cases and Observations in Midwifery* published in 1754 and a third volume titled, *A Collection of Preternatural Cases and Observations in Midwifery* published in 1764. Both volumes contained additional case stories on various diseases affecting pregnancy and female reproductive health. In addition to these written works, Smellie also collaborated with medical artist Jan van Rymdyck in Britain, who sketched more than twenty illustrations of fetuses and pregnant women throughout different stages of pregnancy for *A Set of Anatomical Tables, With Explanations, and an Abridgment, of the Practice of Midwifery* (1754).

The volume of images within Smellie's works indicated that he had access to many cadavers. In the eighteenth century, corpses for scientific and medical education primarily came from post-mortem exhumations. This was because deaths of pregnant women prior to delivery were rare. Several historians, including Don Shelton, later speculated that Smellie arranged the deaths of women at different stages of pregnancy to get enough corpses.

In 1759, Smellie retired due to declining health as a result of a lifelong battle with asthma. He and his wife returned to Lanark where he owned a house. Smellie spent the rest of his life adding to his book collection. Smellie also carved, painted, sketched, and played instruments including the violoncello and organ. Smellie died in his home on 5 March 1763. In 1931, obstetrical societies of Glasgow, Scotland, and Edinburgh, Scotland, constructed a chapel at the site of his tomb to honor his achievements in obstetrics and midwifery.

Sources

1. Baskett, Thomas F. "The Resuscitation Greats: Benjamin Pugh: the air-pipe and neonatal resuscitation." *Resuscitation* 44 (2000): 153-155.
2. Boyd, Gavin. "William Smellie." *The Ulster Medical Journal* 27 (1956): 29-36. <http://www.ncbi.nlm.nih.gov/pmc/centrez> (Accessed February 1, 2015).
3. Campbell, Melissa. "William Smellie's Obstetrical Forceps." *Australian and New Zealand Journal of Obstetrics and Gynaecology* 44 (2004): 184-185.
4. Cody, Lisa F. "The Politics of Reproduction from Midwives' Alternative Public Sphere to the Public Spectacle of Man Midwifery." *Eighteenth Century Studies* 32 (1999): 477-495.
5. Dunn, Peter M. "Dr William Smellie (1697-1763), the Master of British Midwifery." *Archives of Disease in Childhood - Fetal and Neonatal Edition* 72 (1995): F77-F78. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2528415/?tool=pmcentrez> (Accessed February 18, 2015).
6. Mitchell, Ross. "William Smellie: Master of British Midwifery." *Canadian Medical Association Journal* 48 (1943): 536-539. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1827778/?page=1>

(Accessed February 1, 2015).

7. Peel, John. "Smellie, William (1697-1763)." John Peel in Oxford Dictionary of National Biography, online ed., edited by Lawrence Goldman. Oxford: OUP.
8. Shelton, Don C. "Man-midwifery History: 1730-1930." *Journal of Obstetrics and Gynaecology* 32 (2012): 718-723.
9. Smellie, William. *Treatise on the Theory and Practice of Midwifery*. 3 vols. London: New Sydenham Society, 1752-1764. www.archive.org/details/smelliestreatise001smel (Accessed February 20, 2016).
10. Smellie, William. *A Sett of Anatomical Tables, With Explanations, and an Abridgment, of the Practice of Midwifery*. 1754. www.nlm.nih.gov/exhibition/historicalanatomies/smellie_home.html (Accessed February 20, 2016).
11. Wilson, Adrian. *The Making of Man-Midwifery: Childbirth in England, 1660-1770*. London: University College London Press, 1995.