

# A Treatise on the Theory and Practice of Midwifery, (1752-1764) by William Smellie

A Treatise on the Theory and Practice of Midwifery is a three volume collection of patient accounts that William Smellie published from 1752 to 1764. Smellie, a physician and instructor in obstetrics in Great Britain, published these compilations to share his expertise in reproductive medicine, while also providing his students and colleagues with a source of reference in their own medical practices. Smellie wrote these books to shift obstetrics from a discipline practiced by midwives with limited medical training to one practiced in a medical context by physicians. Throughout his books, Smellie describes effective and ineffective treatments, tools, and interventions for complications during pregnancy. Due to the popularity of Smellie's writings, access to Smellie's work expanded beyond his students, allowing obstetricians, man-midwives, and physicians to refer to scientific literature and apply Smellie's teachings to their own practice.

Employed as a physician, man-midwife, and medical teacher, Smellie treated many patients. He compiled detailed notes on hundreds of infant deliveries he assisted between 1722 and 1757. Smellie practiced in his hometown of Lanark, Scotland, between 1722 and 1739, and in 1740 he expanded his medical practice to London, England. After relocating to London, Smellie also opened a medical practice aimed at providing impoverished women with medical care and allowed his pupils to practice obstetrics on those patients. With vast access to patients, Smellie observed a number of conditions affecting women, fetuses, and infants, including miscarriages, breech presentations, uterine and vaginal cancers, pelvic bone injuries, irregular menstrual cycles, menopause, and fetal asphyxiation.

In 1752, Smellie published the first volume of A Treatise on the Theory and Practice of Midwifery in Great Britain. Smellie published the second volume, A Collection of Cases and Observations in Midwifery, in 1754. The third and final volume, A Collection of Preternatural Cases and Observations in Midwifery, was posthumously published in 1764, one year after Smellie's death. Although Smellie strove to teach his students through demonstrations on real patients, cadavers, and models, his publications gave medical practitioners the information he attained from practicing medicine and reading contemporary and ancient medical texts. Though none of the three volumes contain images or graphs, in 1754, Smellie published a set of thirty-seven images of the human pelvis, the abdominal region, fetuses, and forceps drawn by himself and artists Jan van Rymsdyck, Charles Grignon, and Petrus Camper. Smellie titled the collection of images A Sett of Anatomical Tables, With Explanations, and an Abridgment, of the Practice of Midwifery.

Smellie divides the first volume of his treatise into four books, with each book containing multiple chapters discussing a different aspect of female anatomy and pregnancy. Book I primarily deals with anatomical features of the human pelvis and female reproductive organs including the vagina, uterus, ovaries, hymen, and clitoris. In addition to identifying structures and landmarks on these organs, Smellie records diseases affecting his female patients such as rickets, a disease characterized by the softening and weakening of bones and causing excessively painful labor for pregnant women. Smellie also writes about his studies on menstruation and details the duration, volume, onset, and cessation of bleeding during menstrual cycles. In the last chapter of Book I, Smellie discusses twin births and superfetation, a phenomenon in which patients can conceive while already pregnant.

Book II of the first volume has Smellie's discussion of conditions he diagnosed in women during pregnancy, including nausea, vomiting, hemorrhoids, kidney and bladder stones, hernias, and incontinence. Smellie lists remedies and treatment plans for each illness, including light diets and fresh air to treat nausea, catheters to remove bladder stones, and bed rest for patients with hem-

orrhoids. Before concluding Book II, Smellie also discusses urine incontinence, gonorrhoea, and he suggests possible causes of miscarriages including convulsions, constipation and violent coughs.

After addressing numerous conditions adversely affecting pregnancies, Smellie discusses fetuses and childbirth in Book III. Smellie suggests that breech presentations, in which the fetus's legs instead of its head face the birth canal, are caused by lack of fluid in the womb, thus preventing the fetus from rotating its head toward the birth canal. Smellie introduces techniques he used to determine whether patients are pregnant and how far the pregnancy has progressed. Additionally, he describes the procedures he used to manage patients during and after childbirth and to deliver placentas. Throughout Book III, Smellie discusses the tools used during delivery including a crochet, used to dismember and remove dead fetuses, forceps, to extract fetuses from the womb, and fillets, devices looped around a fetus to aid in delivery.

In Book IV of the first volume, Smellie provides instructions on how to care for patients after childbirth. He describes liquid diets, wound and laceration care, urine and stool monitoring, treatment of breastfeeding complications, and bathing of infants. Smellie devotes the last portion of the first volume to call for cooperation between midwives, man-midwives, and nurses to ensure the best care for patients.

In contrast to the first volume of *A Treatise on the Theory and Practice of Midwifery* in which Smellie transcribes his lectures on anatomy and childbirth, the second volume provides case studies about patients Smellie treated prior to publishing his book. The cases compiled illustrate a variety of treatment methods and provide a reference for his students. They also explain unsuccessful cases to identify errors and shortcomings in the practice of midwifery. Smellie organizes case studies into thirty-one collections based on the type of disease or condition illustrated. Collection I contains Smellie's notes on the pregnancies and deliveries by women who suffered from deformities of the pelvis. Smellie reports that in such cases, successful delivery of fetuses often failed.

Collections II, III, and IV detail observations on menstrual cycles in Smellie's patients. Smellie writes about various menstrual abnormalities in Volume Two such as imperforate hymen, a congenital condition characterized by complete obstruction of the vagina that prevents menstruation and pregnancy. He also discusses the symptoms of menstruation including headaches and stomach cramps. To treat an imperforate hymen, Smellie describes using scissors to cut the obstruction. For symptoms of menstruations, Smellie prescribes patients broths made from spices such as cloves, mace, nutmeg, cardamom, and celandine.

Within Collections V through XIII, Smellie addresses conditions occurring in the reproductive organs of women or occurring during earlier stages of gestation. Specific ailments seen in Smellie's patients included pregnant women suffering from smallpox, uterine and vaginal cancers, morning sickness, anxiety, kidney stones, and syphilis. Pregnancy conditions included false pregnancies, miscarriages, premature labor and superfetation. Collections XIV through XX dealt with childbirth complications caused by convulsions, fevers, and smallpox in pregnant women and hydrocephalus, the buildup of spinal fluid in the brain, in fetuses.

The final portion of Volume Two of Smellie's treatise, Collections XXI and XXXI, includes case studies in which Smellie employed surgical instruments such as crochets, fillets, and forceps, and catheters to deliver fetuses and ensure their survival. In 1749, Smellie recalls delivering an infant born breech. However, the infant's head remained in the birth canal longer than Smellie intended and the newborn stopped breathing after birth. Smellie inflated the lungs with air through a catheter and the newborn began to breathe. In Collection XXXI, Smellie recalls attempting to deliver a fetus with long forceps. Unsuccessful with the forceps, Smellie used a crochet to extract the dead fetus's head. Although the fetus did not survive, the woman survived and recovered after labor. In the concluding chapters, Smellie defends his use of surgical tools in childbirth. Despite conceding that fillets, forceps, and crochets could cause damage to the fetus, Smellie argues for the necessity of such tools in certain scenarios to ensure the life of the pregnant woman.

The third and final volume of Smellie's treatise, published in 1764 after Smellie's death, includes Smellie's views of midwifery. He suggests that midwives and man-midwives often disputed the care of patients and includes case studies in which midwives and man-midwives disagreed on how to treat patients. Midwives were female practitioners who gained licenses to practice from religious insti-

tutions, while man-midwives were often physicians who received training through apprenticeships. Formatted in the same manner as the second volume, Volume Three adds thirty-eight additional collections of Smellie's notes on breastfeeding, deliveries, cesarean sections, complications after delivery, and the delivery of twins and triplets.

To deliver fetuses with appendages and organs obstructing the birth canal, trapped within the birth canal, or presented breech, Smellie describes using his hands and surgical tools to rotate the fetus in the birth canal or to pull the fetuses out. In addition, Smellie includes case studies in which pregnant women experienced excessive bleeding during labor and after childbirth. Pregnant women under Smellie's care experienced a variety of outcomes, with some surviving and others dying of blood loss. Collection XXXVIII of the third volume also details case studies of conjoined twins, which Smellie deemed monstrous. In such cases, the conjoined twins either both survived, died, or in some instances, one infant died after birth while the other infant remained alive.

In Collection XXXIX, Smellie describes performing cesarean sections, in which a surgeon removed a fetus from the pregnant woman's uterus through an incision in the abdomen, when vaginal delivery was not possible. Smellie adds both successful and unsuccessful case studies of other midwives and physicians who performed cesarean sections and the materials they used to perform the surgery. These tools included scalpels, scissors, and threaded needles. In the third volume, Smellie details some of the complications following delivery including inflammation of the uterus and vagina, which Smellie treats with emollients or poultices made from combinations of wine, herbs, butter, and cow's milk and dung. Smellie also mentions other complications such as constipation, diarrhea, puerperal fever, purges, and urine retention. In addition to changing the diet regimen of his patients and regulating their physical activity, Smellie discusses the use of small doses of opiates to mitigate pain and stop violent purges.

Smellie's *A Treatise on the Theory and Practice of Midwifery* was translated into French, German, and Japanese after being published. Smellie's book became the standard text for physicians on pregnancy, childbirth, and female reproductive medicine. After the publication of the first volume of Smellie's book, Smellie became a prominent figure in midwifery in Britain and Europe. Although lauded by the medical community, Smellie's *A Treatise on the Theory and Practice of Midwifery* received backlash from rival practitioners and midwives, who opposed man-midwifery.

## Sources

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