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Ephraim McDowell

The Qualities of a Good Surgeon

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## Abstract

Go to:

## Objective:

Go to:

To identify those personal qualities which enabled Dr. Ephraim McDowell to be successful as the first surgeon in the world to remove a large ovarian tumor.

## Summary Background Data:

Go to:

Dr. McDowell, in 1809 and before anesthesia or antisepsis, removed a large ovarian tumor from his patient, Jane Todd Crawford, who then survived 33 years.

## Methods:

Go to:

Existing histories and accounts of Ephraim McDowell's life and operations were sifted for his personal qualities. A visit to the McDowell House and family 200<sup>th</sup> reunion in Danville, Kentucky,

added details.

## Results:

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Qualities of confidence, compassion, courage, commitment, communication, courtesy, and especially cleanliness have been identified.

## Conclusions:

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Those qualities attributed to Ephraim McDowell perhaps were instrumental in his successes. Those basic qualities are still important for surgeons today.

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There have been numerous articles and books written about the life of Ephraim McDowell and his famous patient, Jane Todd Crawford. Even the logo of the Southern Surgical Association contains the bust of Dr. McDowell. In 1879, Samuel Gross proclaimed McDowell, “the father of ovariectomy.” The operation and the details of the lives of surgeon and patient have been told and retold. The purpose of this research was to identify those personal qualities that may have contributed to Dr. McDowell's success. Particular attention was paid to evidence of personal attributes that could have helped his patients to avoid infection and peritonitis.

## METHODS

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In addition to the 2 short case reports by McDowell,<sup>1,2</sup> reference books,<sup>3,4</sup> articles,<sup>5</sup> and the orations of Samuel Gross<sup>6</sup> were scoured to find accounts of McDowell's personal characteristics. The McDowell House in Danville has been restored at the impetus of the Kentucky Medical Association and now serves not only as the museum, but as a valued research resource. In June 2003, the McDowell House celebrated its 200<sup>th</sup> anniversary with a family reunion and special program in Danville, Kentucky. A professional actor, and McDowell family member, portrayed the famous surgeon. The McDowell House furnished a copy of McDowell's letters and houses his portrait ([Fig. 1](#)).





**FIGURE 1.** Portrait of Ephraim McDowell.

## RESULTS

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Since all attempts at abdominal exploration before 1809 resulted in peritonitis and death, particular attention was paid to evidence of measures taken by McDowell to reduce infection. His operation preceded the discovery of bacteria and antisepsis and anesthesia. There was no concept of infection due to bacteria; therefore, no thought was given to antisepsis. However, descriptions of McDowell both as a young man and later as an adult surgeon include phrases such as “neat and clean” or “scrupulously clean.” In addition, his published report of the operation on Mrs. Crawford includes a description of the apposition of the skin with adhesives placed between the through-and-through sutures. He was not only neat, but also meticulous. His very short report of 3 successful ovariectomies was published 7 years after the first operation. In that publication, he included details such as the removal of blood from

the peritoneal cavity and bathing the intestines with warm water. His operation on Jane Crawford was only 25 minutes in length, but it was obviously carefully planned and executed.

Other attributes were determined from his description of the initial consultation with Mrs. Crawford. Dr. McDowell had been asked by her 2 attending physicians to help with a difficult delivery, but he made the diagnosis of ovarian tumor after a careful history and physical examination. Even though his teachers and surgeons of his time felt that abdominal exploration resulted in peritonitis and death, he had enough confidence in his knowledge of anatomy and his skill as a surgeon that he was willing to attempt the “experiment,” as he called it. He listened with compassion to the pleas of his patient as she asked him to keep her from a slow and painful death. Dr. McDowell then described to the patient, in great detail, her condition and the fact that operation for cure had never been performed. He also stated that the best surgeons in the world had believed successful operation to be impossible. When Mrs. Crawford said that she understood the risks and was willing to proceed, he committed himself to perform the operation if she could travel the 60 miles to Danville. Dr. McDowell described a process of truly informed consent.

He was definitely not a barber surgeon or technician and, when reporting, in 1819, 2<sup>2</sup> additional successful ovariectomies, he wrote: “...it is my most ardent wish that this operation may remain to the mechanical surgeon forever incomprehensible.”<sup>2</sup>

## DISCUSSION

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There are some basic character traits that may help a surgeon in accomplishing successful operations. Some authors have stated that McDowell was lucky that his patients survived without peritonitis. The fact that operation on Jane Crawford was performed in McDowell's house was fortuitous; the bacteria that reside in large hospitals were avoided. Since McDowell was not teaching medical students, he did not participate in autopsies and then tend to sick patients. However his personal traits of neatness and cleanliness would have helped in avoiding infections. From the descriptions of his character, he was definitely not the type of person who would wear a bloody apron as a badge of pride.

In his own words, he described the details of the ovarian tumor removal and included his concerns with keeping the intestines warm, draining the excess blood from the peritoneal cavity, and careful apposition of the skin edges.

Following is a list of Dr. Ephraim McDowell's personal qualities described as “C” words along with evidence corroborating each of the characteristics.

**Courageous.** When he agreed to attempt an operation that his teachers had stated was doomed to result in death, he, as well as his patient, showed great courage.

**Compassionate.** He was concerned for his patient and responded to Mrs. Crawford's pleas for help.

**Communicative.** He explained to his patient the details of her condition and her chances of survival so that she could make an informed choice.

**Committed.** He promised his patient that if she traveled to Danville, he would do the operation. He made a commitment to her care.

**Confident.** He assured the patient that he would do his best, and she expressed confidence in him by traveling 60 miles by horseback to his home.

**Competent.** Although lacking a formal medical degree, he had served an apprenticeship in medicine for 2 years in Staunton, Virginia, and he had spent 2 years in the study of medicine at the University of Edinburgh, an excellent medical school. In addition, he had taken private lessons from John Bell, one of the best surgeons in Europe. By 1809 he was an experienced surgeon.

**Careful.** Despite the fact that 2 physicians had pronounced Mrs. Crawford as pregnant, he did a careful physical examination and diagnosed that she was not pregnant but had an ovarian tumor. He also carefully planned each operative procedure with a review of the pertinent anatomic details. As a devout Presbyterian, he wrote special prayers for especially difficult cases and performed many of these operations on Sundays.

The above characteristics are desired traits in surgeons today, even

with our advanced technology.

There is one final trait, which is helpful to surgeons, that Dr. McDowell possessed. This attribute is directly addressed in descriptions of him.<sup>4</sup>

**Courteous.** He was humble and courteous in his dealings with others. Even when he was publicly and privately criticized after the publication of his case reports, he did not react with vitriol.

The qualities of character demonstrated by Dr. Ephraim McDowell 200 years ago are still essential for surgeons today.

## Footnotes

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