Chapter 5
Surgical Training

ABSTRACT
The purpose of this chapter is to explore how the acquisition of operative skills is an important aspect of the training of doctors. As multifaceted as the philosophy of medicine, surgery too has numerous aspects, much more than the simple act of cutting and suturing. Thus, competence in surgical skills involves considerable investment in terms of time and effort.

KEY POINTS
• to appreciate how development of surgical skills is a specialized area in residency training
• to study the different methods by which this training could be provided
• to discuss the pros and cons of these various methodologies
• to understand the specific demands of each of these methods
• to try to optimize the training for surgical skills towards building competence and assuring patient safety

INTRODUCTION
“On Saturday, I was a surgeon in South Africa, very little known. On Monday, I was world renowned.”- Christiaan Barnard

There is something about holding a knife in one’s hands…. it may be like drawing out a primeval instinct- a feeling of absolute power, a moment of triumph before the kill, and finally redemption, victory, fame.

Ask a young child what kind of a doctor he or she would like to become, if at all, and the answer is likely to be “heart doctor, of course”! Ask the same question to a young pupil entering medical school, and this would change to “heart surgeon”. And then ask a young aspiring surgeon, and this becomes “cardio vascular (or cardio thoracic)” surgeon. Like Christiaan Barnard has described, the seemingly

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superhuman feat of opening up the heart of a human being in order to give him (or her) a new lease of life is coming as close as possible to playing God, and worthy of instant global recognition and adulation!

The man who performed the first successful heart transplant was, besides being brilliant, also famously flamboyant- almost arrogant, according to his peers (Miller, 2000). Turkish cardiac thoracic surgeon Mehmet Oz, who went on to also host and appear on television shows, explained how arrogance is essential to the mental makeup of a surgeon, particularly a heart surgeon:

“As a surgeon you have to have a controlled arrogance. If it’s uncontrolled, you kill people, but you have to be pretty arrogant to saw through a person’s chest, take out their heart and believe you can fix it. Then, when you succeed and the patient survives, you pray, because it’s only by the grace of God that you get there.”

The Making of a Surgeon

Does performing a surgical procedure, which if successful, give one an instant high- a rush of adrenaline like no other activity in the realm of medical practice- thus accounting for the arrogance of surgeons and also the popularity of surgery as a specialty among aspiring doctors? The white coat gets a new cousin- surgical scrubs- a fashion faux pas to many but as glamorous as the little black dress for surgeons! Surgery is high drama every time the surgeon lifts the scalpel…. every time is a new experience- fraught with anticipation, sometimes with a routine and uneventful end, sometimes unpredictable and even catastrophic- but never boring.

Personality is thus very unique to surgeons, some of whom wear their pompousness on their sleeve while others are somewhat subdued. The majority of surgeons tend to be jovial and ebullient as opposed to their “physician” colleagues who are rather reserved and serious by nature and also by their training (Pai & Shivashanker, 2013). Surgeon jokes and locker room banter are usually of the kind that is below the belt and further convey the impression of surgeons being shallow and superficial in addition to being wildly arrogant. In popular perception and also among medical students little is therefore understood about the rigorously demanding nature of surgical training.

Evidence Based Surgery

Surgery is often the final frontier for many diseases and ailments that are not amenable to cure with medication or other conservative methods. Surgical methods and techniques are continuously evolving both as a result of technological advances as well as the astute thinking of the surgeons themselves as they grapple with questions and ideas about how to improve surgical outcomes. Better routes of access, shorter surgical time, minimization of blood loss, reduction of complication rates, shorter hospital stay and post surgical medication, and finally better rehabilitation leading to quicker restoration of normal function- all these are important factors to consider when trying to improve outcomes in surgical practice.

As dynamic surgeons, either in independent settings or academic practice, discover positive solutions to all of the above issues, they set the trend and provide a template for other surgeons to emulate and further refine. If designed and executed in the methodology of research studies in surgical practice, these refinements in approach and technique provide the direction for evidence based surgical practice. This may then be utilized uniformly across settings and countries to bring about greater benefits for patients when they choose to go under the knife.
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