

Editorial

## Boot Camps to Prepare Trainees for a Surgical Residency

Vivek Gharpure

*Editor-in-Chief, Pediatric Surgery in Tropics*

These days, those who aspire to become a surgeon have to solve 200 multiple-choice questions in 3 hours which makes them eligible to join a residency program. Those who are unable to score well, but are keen to obtain a postgraduate degree in surgery join a private medical college after pay a hefty fees. We are not concerned with the money part, as this is something decided by the governments and medical councils. However, after working with trainees in government, private, semi-private training institutions, I have observed that a large number of trainees are absolutely unprepared to become a surgeon.

A surgeon needs many skills in addition to being a doctor, knowing facts about the human body and performing surgical operations. Remembering the figures of fluid-balance and dosages of antibiotics is good, but that is not enough to become a successful surgeon. So what are the qualities does a surgeon require? Trainees ought to have them. If not, they need to be taught formally. The current emphasis on research methodology programs can be switched to development of basic skills.

A surgeon must have good physical health as surgical work is mainly physical. Surgeons have to stand up for hours and perform delicate manual work. They must have strong knees, core strength, manual dexterity and good eyesight with hand-eye coordination. This is almost similar to the skill set requirement of airline pilots who undergo a pilot-aptitude battery test. However, we have not heard

of a surgical aptitude battery test. Attitude and aptitude (hand-eye coordination, stress handling, memory recall, communication skills, ability to organize facts and make a summary) should be tested in surgical trainees.

Surgeons also need to handle stress. They may have to operate at any hour of the day. These days, surgeons need to handle stressful confrontations with patients, relatives, other doctors in hospital, and yet need to remain cool and composed.

Surgeons have to remember a large number of facts and figures pertinent to patient care. From simple figures such as the patient weight to more complex ventilator settings, innumerable details have to be remembered. If someone is not good at this, proper training can impart it.

Training and practice is also required to summarize complex details such as the history of illness, hospital course and operative findings. Important and relevant facts must be chosen and compiled in a lucid report for communicating. The summary should resemble a short story covering all essential points making a right impression in the minds of readers or listeners.

Even, voice training is desirable, as surgeons have to speak clearly and authoritatively in the operation room (OR), without leaving any ambiguity in the minds of OR nurses, technicians or anesthesiologists.

A complex operative procedure involves a large number of steps which must be performed in the right sequence. A strong memory is very useful in remembering the steps, or else, one must learn to use memory-aids such as teleprompters.

Surgeons must have the ability to nap at will, something similar to that of the special task-force commandos. Surgeons must have the ability to take a quick meal and learn to choose foods which provide the best combination of carbohydrates and proteins to sustain them throughout the day. Besides all this, surgeons must learn to relax, take breaks, pace themselves so that they can continue to work efficiently for hours together.

Several institutions have incorporated boot camps in surgical training and have observed significant improvement in the quality of work.<sup>(1)</sup> Surgical boot camps are also found to improve the student-satisfaction and confidence in the core competencies of clinical practice.<sup>(2,3)</sup> Zhang recommended that, medical schools the world over should continue to seek ways to bridge the gaps between pre-clinical, clinical and internship training.<sup>(2)</sup>

In the current model of training, all emphasis is on rote learning and only a very little emphasis is on actual acquisition of surgical work skills. Though, with skill based learning, this lacuna may be filled, the large number of undergraduate students makes this practically difficult. Institutional architecture, work environments, geographic variations and cultural differ across the hospitals make it difficult to design a national level boot camp or even a state level boot camp. Hence, these will have to be designed and implemented at local level, by hospital administrations and the training departments. It is hoped that such a training will lead to a better quality of trainee who can focus on important aspects of becoming a surgeon.

## REFERENCES

- [1] Schmitt F, Eyssartier E, Lebreton SM, Rony L, Boucher S, Riquin E, Martin L. Preparatory surgical boot camp: An effective form of training with a positive impact on self-confidence and procedural skills of the residents. *Surg Pract Sci.* 2022 May 30; 10: 100095.
- [2] Zhang J, Zilundu PLM, Zhang W, Yu G, Li S, Zhou L, Guo G. The use of a surgical boot camp combining anatomical education and surgical simulation for internship preparedness among senior medical students. *BMC Med Educ.* 2022 Jun 15; 22(1): 459.
- [3] Choron RL, Manzella A, Teichman AL, Cai J, Schroeder ME, Yao M, Greenberg P. The impact of surgical boot camp on medical student confidence and imposter syndrome. *J Surg Res.* 2023 Mar; 283: 872-878.

**Address for communication:** Dr. Vivek Gharpure,  
Email: [editor@pediatricsurgeryintropics.com](mailto:editor@pediatricsurgeryintropics.com)

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