

## Are Surgeons Born or Trained?

Rehan Ahmed Khan

**IMPORTANCE** In professions that require a high level of psychomotor skill acquisition, such as surgery or flying a plane, this is an ongoing debate: are they born or made? The qualities of the surgeon are not only mechanical but are also related to mental, social-psychological, and educational elements. It is not very wise to think that all good surgeons around us are gifted with all these qualities and their practice, hard work and experience have a lesser role in the acquisition of these qualities that are required to become a good surgeon. In this editorial, I will present different views on this debate and try to reach a conclusion.

**KEYWORDS** Qualities of surgeon; surgical skills; surgical talent

**HOW TO CITE** Khan RA. Are Surgeons Born or Trained? *Archives of Surgical Research*. 2022, 3 (1):1-2. <https://doi.org/10.48111/2022.01.01>

### Editorial

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<https://doi.org/10.48111/2022.01.01>

In the field of surgery, when a surgical trainee starts the training, we would hear comments such as “s/he is a born surgeon”, “s/he is a natural surgeon” etc. On the other hand, we may also hear other comments such as “s/he cannot become a surgeon”, “s/he does not have what it takes to become a surgeon”, etc. If we dig deep into the source of these perceptions; the reason why these perceptions are developed about the surgical trainees or surgeons in practice, we will find that these are based mainly on the observations of near peers and supervisors. The list of these observations is exhaustive, but the major ones would entail skills that the surgeon demonstrates like making an incision, handling, and dissecting the soft tissues, knotting, and suturing, identifying the surgical anatomy, and handling the bleeding during operations. If the surgeon demonstrates these skills with accuracy and speed, s/he gets a label of ‘born to be surgeon’. On the other hand, if the surgeon struggles to demonstrate these competencies, s/he may be labeled a ‘poor surgeon’.

However, some people have a pragmatist view on this topic. They support both the arguments that surgeons are born but they are made as well. So, surgeons with inherent skills can easily learn the art and craft of surgery with little effort in comparison with others, however others without the inherent skills can become equally good or better surgeons with hard work and practice.

But is being a surgeon all about cutting? The answer is ‘No’. In this regard the famous saying that a good surgeon knows how to operate, a better surgeon knows when to operate

and the best surgeon knows when not to operate stands true. Because as soon as the surgeon gives an incision, how precise it is, if not required, the harm has been done<sup>1,2</sup>. Being a surgeon is about making decisions, managing a patient pre and post-operatively. It’s about being ethical, professional, and empathetic with the patient. It is about being a good communicator, having high emotional intelligence, and having good leadership skills. Are we born with all these skills cumulatively, or do we learn them through education and experience?

If we consider good surgeon and inherent skills as two variables in which we would like to establish a co-relation, we should not forget that it will only establish an association and not cause and effect phenomenon. And even this association of being born with surgical skills and becoming a good surgeon would be hard to establish. This is because there are many moderating variables that we ignore when we establish the inherent skills as the only cause of becoming a good surgeon. To list a few of them, these variables are hard work, practice, leadership, communication, and emotional intelligence as mentioned earlier.

Also, to reach a conclusion or make an opinion regarding this debate, we need to understand how a good surgeon is made. And even before that, what is a good surgeon? This in fact is not an easy answer; however, a literature search suggests that a good surgeon is an amalgam of good manual dexterity, sound theoretical knowledge, and is well versed in non-technical skills<sup>3,4</sup>. The journey of becoming a surgeon is also reflective of resilience, passion, and hard

work. The qualities of the surgeon, hence, are not only mechanical but are also related to mental, social-psychological, and educational elements. It is not very wise to think that all good surgeons around us are gifted with all these qualities and their practice, hard work and experience have a lesser role in the acquisition of these qualities that are required to become a good surgeon. It may be true that an

individual has some of these qualities that may make the journey of becoming a good surgeon easy but someone lacking these qualities by default can also acquire them with hard work, resilience, and passion. Hence, we can say that surgeons are not in fact born but are fashioned by steady coaching, much practice, and experience.

**ARTICLE INFORMATION** Accepted for Publication: March 17, 2022, Published Online: March 00, 2022. <https://doi.org/10.48111/2022.01.01>

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**Financial Support and Sponsorship:** Nil.

**Conflicts of Interest:** There are no conflicts of interest

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