Editorial

Learning (and teaching) Plastic Surgery in the 21st century

O aprendizado (e o ensino) da Cirurgia Plástica no século 21

Much has been discussed about generational differences and the difficulty in creating paths to overcome barriers in the teaching of plastic surgery. There are new and significant challenges influencing change in medical care, with pressures from the courts and concerns about the quality of care and patient safety. The result is reflected in the decrease in opportunities and greater control over the practice activities of doctors in training, especially for residents in surgical specialties. Clinical practice has always been the essence and foundation of traditional learning methodologies, dating to back to the time of Halstead, with the development of the medical residency model in 1890[1].

The natural growth of our specialty leads to compartmentalization in subspecialties of knowledge. Plastic surgery has at once become both more specific and complex. The new technologies affect professional activities, as routinely seen in hand surgery, craniomaxillofacial surgery, complex wound management, breast reconstruction, pediatric plastic surgery, and microsurgery, among others.

A new issue may be developing in education, challenging the motivation of the traditional preceptor, who conveyed knowledge and worked in all fields of a specialty, with fragments of knowledge taught by ultra-specialists. If we consider the teaching models for undergraduate medical education and postgraduate courses in basic surgical fields, the same phenomenon can be observed. Without appropriate guidance, the young surgeon is exposed to highly specific information without adequate basic preparation[2,3].

Therefore, we must remain alert to the basic tenet of training: the secure transmission of the fundamentals of plastic surgery. The preceptor physician who spends time with residents must serve as a model who goes beyond the simple conveyance of technical knowledge, and acts as a mentor, providing lessons applicable to professional life outside the four walls of the surgical center.

Having identified the challenges, it is our obligation, as examples for the next generation, to actively reflect on the changes necessary for the delivery of innovative training in plastic surgery and to address all variables arising from a new reality. In the United States, the gradual decline of the "see one, do one, teach one" system has been discussed for a decade. The restriction of opportunities, resulting from reduced working hours and opportunities for practical application during residency are the main responsible factors[4-6].

Hence, necessary medical skills must be acquired in other ways, such as realistic simulations, the use of standardized cases with manikins and actors, training in the laboratory, and the use of telemedicine[7-9]. These methods have been effective in various areas of plastic surgery, as in the teaching of microsurgery, techniques of craniofacial osteotomy, and video-assisted surgery, enabling the application of surgical techniques similar to actual clinical conditions[9].

A problem that remains unresolved, but has a high degree of importance, is the application of new mentoring methodologies, seeking to rethink the discipline of medicine beyond the technical-scientific aspects. This is perhaps the most complex component in terms of simulation of reality, because the tools available to evaluate learning are fragile and subjective. It is still difficult to assess professionalism and individual ability to communicate in order to ensure that the teaching proffered was effective in the overall education of the surgeon-in-training[9,10].

The challenge is clear. The preparation of the next generation of Brazilian plastic surgeons deserves not just reflection but also an action plan to maintain our prominent place in the international arena.

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