

## The Heart and Science of Orthopaedic Surgery

***“Life is short, art long, opportunity fleeting, experience treacherous, judgement difficult.”*** These are words from the ancient Greek physician Hippocrates. The most common and significant caveat regarding this saying is that “art” originally meant “technique” or “craft” and not “fine art”. Hippocrates made this the opening statement in a medical text. He then followed this with the lines, “The physician must not only be prepared to do what is right himself, but also to make the patient, the attendants, and externals cooperate.” To put it in layman’s terms, “It takes a long time to acquire and master one’s skill and one has a short time in which to do it.” As I stand on the crossroads between residency training and being an independent consultant orthopaedic surgeon, these words ring truer than ever before. A surgeon like a professional athlete has a short career span. In this short period of time, society expects us to be knowledgeable, competent and to ***put the interests of patients above everything else.***

Medicine is one of the oldest professions, considered to be ancient and honorable. Physicians and surgeons are both included – and yes, orthopaedic surgeons too! Most of us chose this profession due to a calling. While the science of medicine has progressed exponentially, I would argue that it is the ethics of ***service over self-gain*** and the art of medicine that has sustained our profession for the last 2500 years. Orthopaedic surgery as a specialty service in Singapore has only been in existence for a little over half a century. However, it was based on the strong pillars of ethics, compassion and competence. The onus is on us, the future generation of orthopaedic surgeons, to build upon this strong foundation.

There is no doubt that these are slightly challenging times for our profession. Never mind the tongue-in-cheek comment on orthopaedic surgeons by the internist or the passive aggression directed at us by the anaesthetist. What is alarming is how quickly the public perception of us has deteriorated in one generation. There used to be a time when physicians and surgeons alike were held in high regard.

Today, however, there is a prevalent sentiment in society that doctors are service providers, and not professionals. We are looked upon with suspicion – not just by patients but also by politicians, social workers and activists. Everyone is happy to take potshots at us. They take perverse delight in insinuating how corrupt some doctors are. The general perception is that the medical profession has deteriorated into a commercial activity. The press, of course, has done our profession no favour in this respect.

This is indeed a complex problem but it is our problem to solve. Medicine is one of the few professions that have been given the privilege of self-regulation. If we fail to self-regulate, then it is a matter of time before someone else regulates us. Our patients are not like those of yesteryears. The current day patient is an educated one. One who has already done extensive research on his or her symptomatology and might even have come up with his or her own list of differential diagnoses. They walk into our consultation room with a high level of expectation. And whom do they meet in the consultation room? A hungry, tired orthopaedic resident who has only had two hours of sleep the night before and still has an emergency case to tend to after the clinic session, with the pressures of examinations and research at the top of his mind as well as three complain letters to reply. Oh, did I mention that his family consisting of a forlorn wife and two children are occupying his mind too? It is needless to articulate the perils that may arise from this amalgamation. Let us be honest here. We do feel threatened. We do end up justifying a lot of the criticism that is leveled against us. As we feel besieged and belittled, we end up ordering unnecessary investigations and offer an array of superfluous treatment – not because this is in our patient’s best interests, but because it is in the best interest to protect ourselves. Defensive medicine has now become so ubiquitous in our system that sometimes we do not even realize the costs of our practice and behaviour.

We do not have any precedent evidence to understand the effects of defensive medicine amongst orthopaedic surgeons in our region. However, in a survey conducted by Sethi et al<sup>1</sup> on 1168 orthopaedic surgeons in the United States, it was revealed that 96% reported having practiced defensive medicine by ordering imaging, laboratory tests, specialist referrals, or hospital admissions mainly to avoid malpractice liability. They estimated that the national cost of defensive medicine for the specialty of orthopaedic surgery is \$2 billion annually. In another study by Osti et al<sup>2</sup>, orthopaedic and trauma surgeons from public hospitals in Austria were invited to complete a questionnaire to evaluate the impact of defensive medicine. The prevalence was found to be 97.7%! The average orthopaedic or trauma surgeon requests 19.6 investigations per month for defensive reasons. Even with this practice, participants were confronted with 1.4 liability claims per month. If we ran a local survey amongst orthopaedic surgeons, I would not be surprised to find a similar trend.

Perhaps, the time is ripe now for us to 'heal' ourselves. The reality is that most of us are honest. While we do not want to starve, we did not choose orthopaedic surgery primarily to become rich. We all want our patients to get better. We take pride in our professional accomplishments and our academic skills. We thrive on the 'high' of seeing a patient crawling into our clinic and then walking out of the hospital after successful surgery.

The old adage, "money is the root of all evil" comes to mind. It is a sensitive topic to discuss with relation to medicine. However, it is important to sensitize us, the orthopaedic residents to this issue as we practice in the era where medicine is commercialized. As orthopaedic surgeons, we work very closely with our industrial partners. Collaboration between orthopaedic surgeons and industry is essential for the advancement of orthopaedic technology. We owe immense gratitude to our industrial partners as the advancements seen in our specialty have directly or indirectly improved patient outcomes. Residents have also benefited from training and education initiatives by our industrial partners. It suffices to say that numerous advances in patient care have been accomplished through proper relationships. The primary goal of our profession is caring for the patient. Relationships with industry must be conducted in an ethical manner and not distract us from our primary goal. It is in this grey zone of conflict (of interests) that we must tread carefully.

In economics, Gresham's law is a monetary principle, which states that "bad money drives out good". We have seen our colleagues being disciplined and admonished for professional misconduct or unethical behaviour. I am certain what is being reported is just the tip of the iceberg. Such behaviour is akin to a virulent cancer that spreads very quickly. These practices have the risk of becoming mainstream so quickly that we might not even realize that they are at the very least, unjustified. It may seem acceptable, because the majority are doing it. This breeds an ease of justification – after all the seniors are doing it, then why should not the juniors? This is often the elephant in the room. It is such an uncomfortable issue, that no one wants to confront it. This is one of the reasons why we continue to turn a blind eye to the malpractices that have mushroomed in front of our own eyes. This is also one of the reasons why we are seeing a backlash against this, and politicians and administrators are trying to put an end to these egregious misdeeds. Many of us do not want to take a "holier than thou" approach and be seen to be preaching ethics to our colleagues. However, knowingly or unknowingly we have contributed to a professional conspiracy of silence.

Unfortunately, the solution to pollution in this case is *NOT* dilution. Neither is it collusion! The solution lies with the individual – answering to our own conscience. As young aspiring residents, we need to start our careers putting the right foot forward. We can learn the **science** of orthopaedic surgery from books and journals. We can acquire the skills and techniques from years of observation and practice under the tutelage of our seniors. Even the **art** of communication and patient interaction can somewhat be picked up along the course of our work. However, one can never be taught on how to have **heart**.

Having rambled on above, I am still undoubtedly positive that the future for orthopaedic surgery is bright. We have in our fraternity exemplary seniors as well as burgeoning residents. Other than surgical training, our residency program ensures that we get the necessary exposure to medical ethics, health law and professionalism so that we are sensitized to these less talked about issues before becoming independent consultant orthopaedic surgeons.

Just as I began this expository essay with words from Hippocrates, I would befittingly end it with his wise words as well: ***"Wherever the art of Medicine is loved, there is also love of Humanity."***

## **References**

1. Sethi MK, Obremsky WT, Natividad H, Mir HR, Jahangir AA. Incidence and costs of defensive medicine among orthopedic surgeons in the United States: a national survey study. *Am J Orthop (Belle Mead NJ)* 2012;41(2):69–73.
2. Osti M, Steyrer J. A national survey of defensive medicine among orthopaedic surgeons, trauma surgeons and radiologists in Austria: evaluation of prevalence and context. *J Eval Clin Pract* 2015;21(2):278–284.

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