



Original article

The moral compass in The COVID-19 era: The line between empathy and eagerness of the young surgical generation. A multidisciplinary point of view from first year residents (PGY-1)

La brújula moral en la era COVID-19: la línea entre la empatía y el entusiasmo de la joven generación quirúrgica. Un punto de vista multidisciplinario de PGY-1

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Abstract

The COVID-19 pandemic has been affecting surgical residents in many ways and to varying degrees. While the senior surgical residents have been facing a drastic decrease in the operation time, the junior surgical residents have been exposed to an increased number of beside procedures. However, both of them have been affected by an increased exposure to deaths. This sudden exposure to this amount of deaths can, and has been, greatly impressing mostly the young surgeon generation, still green and impressionable. PGY-1 residents have been balancing emotional confusion between the eagerness of learning new procedures and the anguish coming

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from facing the loss of patients that they have been trying so hard to save day by day. This situation is leading to an increase in burn-out cases, mostly from the general physicians and health care providers. The real effect of this emotional distress is still unknown and it will be topic of further studies once situation is resolved. This article is described using a multidisciplinary approach, giving a PGY-1 personal point of view and an inner philosophical prospective.

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Keywords: Surgery; COVID-19 pandemic; PGY-1

Resumen

La pandemia de COVID-19 ha estado afectando a los residentes quirúrgicos de múltiples formas y en diversos grados. Mientras que los residentes de cirugía senior se han enfrentado a una disminución drástica en el tiempo operatorio, los residentes de cirugía junior han estado expuestos a un mayor número de procedimientos adicionales: sin embargo, ambos se han visto afectados por una mayor exposición a las muertes. Esta repentina exposición a tal cantidad de muertes puede y ha impresionado mucho sobre todo a la generación de jóvenes cirujanos, todavía verdes e impresionables. Los residentes de PGY-1 han estado equilibrando la confusión emocional entre el afán de aprender nuevos procedimientos y la angustia que surge de enfrentar la pérdida de pacientes a los que están tratando de salvar día a día. Esta situación está provocando un aumento de los casos de agotamiento, principalmente de los médicos y proveedores de atención médica en general. El efecto real de esta angustia emocional aún se desconoce y será tema de más estudios una vez que se aclimatará la situación. Hemos estado escribiendo este manuscrito con un enfoque multidisciplinario, dando un punto de vista personal PGY-1 y una perspectiva filosófica interna.

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Palabras clave: Cirugía; Pandemia COVID-19; PGY-1

Background/trainee experience

The COVID-19 pandemic has affected everybody in multiple aspects of their lives. There has been an exponential increase in cases of burn-out among physicians and medical staff due to an increasing number of deaths ([Shah et al., 2020](#)). Due to the necessary temporary closure of hospitals to visiting family members, there are more and more patients with COVID-19 dying alone. These sudden changes had a deep

impact on the morale of the young surgical trainees, still not used to face so much and such frequent deaths. Most hospitals have started virtual services (through I-pads with Facetime/Zoom/Skype) to family members which has allowed family to see their loved ones even if intubated or unconscious (Simard & Volicer, 2020).

Specific to surgical trainees, the COVID-19 pandemic has reduced time in the operating room due to the cancellation of elective procedures. Recently, the American Board of Surgeons gave light to the situation, reducing the number of operative cases needed for surgical residents finishing training in various surgical specialties (Potts, 2020).

On the other hand, junior surgical residents, who do not yet spend much time in the operating room, have been only partially affected from this decreased time for surgeries. The loss in operating time has been exchanged for an increase in bedside procedures, such as central lines and chest tube/pigtail placement which are frequently needed by patients with COVID-19.

The exposure to these procedures is extremely variable and depends on how heavily the hospital has been affected by the COVID-19 pandemic. COVID-19 patients are often critical patients who require central access and arterial monitoring due to blood pressure variability and heavy sedation, and hospitals have been experiencing an increasing number of pneumothoraxes in COVID-19 patients, due to increased PEEP and reduced threshold of COVID-19 patients to barotrauma (Yao et al., 2020).

Expertise of young surgical trainees to bedside procedures has been improving in a short period of time. Typical COVID-19 ICU patients present ideal characteristics for learning due to the fact that they are heavily sedated, under narcotics, and paralyzed. This unique situation has led to, at times, contradictory moral sentiments: on the one side, the increased emotional toll due to increased exposure to death, while on the other side, the enjoyment and excitement of learning new procedures, refining procedural skillsets.

Talking to a colleague she said:

“I have placed my first chest tube in a COVID-19 patient who I was treating for a week. One night he developed a barotraumatic pneumothorax. At the end of the procedure my hands were still shaking for the emotion: I was happy to have

been able to do it for the first time alone but when I came out of the patient's room I could not stop crying”.

At the same time, due to the high mortality rate of the intubated COVID-19 patients (Yao et al., 2020) there is often a sense of futility, where procedures appear to only delay an inevitable outcome, increasing a sense of burn-out among trainees. How will COVID-19 affect the young surgical trainees at the initial stages of their residency? What will be the psychological outcomes of being trained in this COVID-19 era?

Ethical dilemma

This type of experience offers two important ethical dilemmas. The first and well known, is how to face the risk of the burn-out from not only a psychological but also an ethical point of view. A meeting point between the psychological and ethical dimensions may be the resilience intended with regard to the purpose of the medical profession. In other words, “resilience as the ability to maintain the persistence of one's orientation towards existential purposes. It constitutes a transversal attitude that can be understood as the ability to overcome the difficulties experienced in the different areas of one's life with perseverance, as well as good awareness of oneself and one's own internal coherence by activating a personal growth project” (Sisto, Flavia Vicinanza, Laura Leondina Campanozzi, Ricci, & Tartaglini, 2019).

For this reason, situations of great stress are sometimes revelatory of a greater or lesser awareness of the professional choice made. The third Viennese psychoanalytic school of Viktor Frankl taught us that an important (sometimes-decisive) element to persevere in a difficult situation is to know the meaning of that situation regarding the realization of our whole life (Frankl, 1984).

The second problem may be the sense of instrumentalizing the patient in order to practice more invasive maneuvers. First of all, it is not acceptable to act using a patient for our training by carrying out unnecessary or harmful maneuvers. However, the situation of having to perform an invasive procedure on an unconscious and medicated patient is legitimate if the doctor acts in safety and competence. The trainee may therefore have had a benefit in his specific preparation from this pandemic but this benefit itself, if done for the safety and well care of the patient, is not ethically negative but a positive fact. The sense of frustration in seeing the deterioration of

long-treated patients can and must be overcome because we are in the field to do what we can, all we can and the best we can. At the same time, we must be aware, and this Covid-19 has taught us, that sometimes even doing everything we can it is still not enough.

In other words, in medicine as in other specialties the recovery of the sense of the limit is necessary not only to achieve a realistic awareness but also as an engine to improve medical science and be able to go beyond that limit. Crying is human, but touching our limit is what we really need to engage even more in visionary clinical research.

Author contribution

Giuseppe Serena (Drafting Article, Data Collection), Vittoradolfo Tambone (Drafting Article).

Conflict of interest

The authors have no conflicts of interest to declare.

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