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Impact of the SARS-CoV-2 pandemic on Colombian anesthesiologists: Survey study

Impacto de la pandemia por SARS-CoV-2 en anesthesiólogos colombianos. Estudio de encuesta

Sebastian Amaya^a , Marcelino Murillo^{a,b} , Boris Julián Pinto Bustamante^{c,d} , Nubia Sánchez-Bello^e ,
María José Mateus Parra^a , María José Andrade^a , Natalia González Zárate^a , María Paula Pérez^a ,
José Jorge Maya^a , Valentina Monsalve^a , Nashla Fayad Fayad^a , Gabriela Rosero Belalcázar^a , Ilana Charul-Palacio^a 

^aAnesthesiology and Critical Care Interest Group, Escuela Colombiana de Medicina, Universidad El Bosque. Bogotá, Colombia.

^bGeneral Anesthesia Scientific Committee of the Colombian Society of Anesthesiology and Resuscitation (S.C.A.R.E.). Bogotá, Colombia.

^cDepartment of Bioethics, Universidad El Bosque. Bogotá, Colombia.

^dSchool of Medicine and Health Sciences, Universidad del Rosario. Bogotá, Colombia.

^eCoordination of Research and Scientific Publications, Colombian Society of Anesthesiology and Resuscitation (S.C.A.R.E.). Bogotá, Colombia.

Correspondence: Av. Cra. 9 # 131A-02, Escuela Colombiana de Medicina, Universidad El Bosque. Bogotá, Colombia. **E-mail:** sebass13@live.com

Abstract

What do we know about this issue?

The COVID-19/SARS-CoV-2 pandemic has had a significant impact on the professional and personal lives of all healthcare practitioners, affecting their mental and physical health, and their overall wellbeing.

What does this study contribute with?

This study provides an objective representation of the claims that the pandemic has affected healthcare workers, and is an initial approach to the situation arising in Colombia and affecting anesthesiology practitioners as a result of the pandemic.

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Introduction: The practice of anesthesiology during the COVID-19/SARS-CoV-2 pandemic has had a psychological impact, and has been associated with ethical dilemmas, work overload, and occupational risk.

Objective: To understand different problems affecting anesthesiologists, in particular with regards to professional ethics in the decision-making process, increased personal workload, and the potential risk in terms of their own safety and health, as a consequence of working during the COVID-19 pandemic.

Methods: Observational, descriptive, cross-sectional study. A survey was administered to anesthesiologists members of the Colombian Society of Anesthesiology and Resuscitation (S.C.A.R.E.), to enquire about work hours, occupational safety, prevention standards and strategies, and ethical aspects involved in decision making during the COVID-19 pandemic.

Results: 218 anesthesiologist participated in the survey. Most of the respondents felt that there was not a significant increase in their workload, except for those in critical care (42.5 %; n = 17). Most of the participants believe that leisure time is not enough. 55.96 % (n = 122) of the participants said they felt moderately safe with the biosecurity measures, but with a higher risk of contagion versus other practitioners, with 72.9 % (n = 159) responding that they used their own money to buy personal protection equipment (PPE). There was also evidence that one fourth of the respondents has faced ethical dilemmas during the resuscitation of SARS-CoV-2 – infected patients.

Conclusions: The information gathered is a preliminary approach to the situation arising in Colombia as a result of the pandemic; it is clear that anesthesiologists perceive higher associated lack of safety due to different factors such as higher risk of infection, shortage of PPEs and burnout, inter alia. Hence we believe that it is fundamental to acknowledge the work of all anesthesiologists and understand the impact that the pandemic has had on this group of professionals.

Keywords: Anesthesiologists; Psychosocial impact; Work-life balance; Coronavirus infections; Colombia.

Resumen

Introducción: El ejercicio de la anestesiología durante la pandemia por COVID-19/SARS-CoV-2 ha tenido un impacto psicológico y ha estado asociado a dilemas éticos, aumento en la sobrecarga y riesgo laboral.

Objetivo: Comprender distintos problemas en los que se han visto envueltos los médicos anestesiólogos, en especial los relacionados con su ética profesional en el proceso de tomar decisiones, el aumento en la carga personal y el posible riesgo de su seguridad y salud como consecuencia de su labor durante la pandemia por COVID-19.

Métodos: Estudio observacional, descriptivo, de corte transversal. Por medio de una encuesta, aplicada a anestesiólogos afiliados a la Sociedad Colombiana de Anestesiología y Reanimación (S.C.A.R.E.), se indagó acerca de jornadas laborales, seguridad laboral, normas y estrategias de prevención, y aspectos éticos vinculados con la toma de decisiones durante la pandemia por COVID-19.

Resultados: Participaron 218 anestesiólogos. La mayoría de los encuestados consideró que no hubo aumento significativo en su carga laboral, excepto aquellos que ejercen en cuidado crítico (42,5 %; n = 17). La mayoría de los participantes consideran que el tiempo de descanso no es suficiente. Un 55,96 % (n = 122) de los participantes, refieren sentirse moderadamente seguros con las medidas de bioseguridad, pero con un mayor riesgo de contagio frente a otros profesionales, con un 72,9 % (n = 159) y manifestaron haber invertido de sus propios recursos para la adquisición de elementos de protección personal (EPP). Así mismo, se evidenció que una cuarta parte de los entrevistados se ha enfrentado a dilemas éticos durante la reanimación de pacientes infectados por SARS-CoV-2.

Conclusiones: La información obtenida hace un acercamiento inicial a la problemática generada en Colombia por la pandemia, donde es evidente que los anestesiólogos perciben una mayor inseguridad asociada, debido a diversos factores como mayor riesgo de infección, insuficiencia de EPP y burnout, entre otros. Por ende, creemos que es fundamental reconocer el trabajo de todos los anestesiólogos, y comprender el impacto que la pandemia ha tenido en estos profesionales.

Palabras clave: Anestesiólogos; Impacto psicosocial; Equilibrio entre vida personal y laboral; Infecciones por coronavirus; Colombia.

INTRODUCTION

The COVID-19 pandemic has affected over 200 countries around the world and it is characterized by being highly contagious. Among the population groups with the highest risk of exposure is the medical staff. (1) In Colombia, as of June 10, 2021, the number of COVID-19 cases among healthcare personnel was 59,750 confirmed cases and 286 deaths. Comparing against the general population which represented 3,665,137 confirmed cases, the percentage of infected people among the healthcare personnel is 1.6% in terms of the Colombian population. (2) Among physicians, those who perform procedures manipulating the airway are at higher risk of contagion mostly due to their exposure to drops and aerosols, which are the primary source of transmission (1,3-5); anesthetists are part of this group of doctors. The practice of anesthesiology during the COVID-19 pandemic does not only present a higher biological risk, but also involves a strong psychological and emotional impact on

workload and wellbeing. (6-8) Hence, it is befitting to describe the impact of this event on aspects such as safety and work-related burden of anesthetists, as well as the ethical dilemmas they have dealt with in their practice during the COVID-19 pandemic in Colombia. The purpose of this study was to identify the various situations involving the anesthetists certified by the Ministry of Education and members of the Colombian Society of Anesthesiology and Resuscitation (S.C.A.R.E.) during the pandemic.

METHODS

Observational, descriptive, cross-sectional study based on a survey designed by the authors. The survey questions enquire about work days, occupational safety, standards and prevention strategies, and ethical aspects involved in decision-making throughout the COVID-19 pandemic.

The study population included medical doctors specialized in anesthesiology,

members of the Colombian Society of Anesthesiology and Resuscitation (S.C.A.R.E) who practice or had clinical activity during the COVID-19 pandemic (all the anesthetists who are members of S.C.A.R.E. are licensed to practice in the Colombian territory). All members who expressed their willingness to participate gave their authorization by submitting their informed consent attached to the survey questionnaire. The anesthetists who said they were not in clinical practice during the SARS-CoV-2/COVID-19 pandemic were excluded.

The survey (supplement material) was e-mailed to 2,896 members using the QuestionPro platform on March 26, 2021; there was a second e-mail reminder on April 5, 2021. The e-mail was an invitation to participate and included the link to access the survey. When opening the link, there was an introduction describing the purpose of the study and the informed consent form. If a participant agreed to complete the survey, at the end of the introduction, his/her acceptance allowed

access to the questions and enabled the answers; otherwise, the page would close.

Based on an estimated response rate of at least 50 %, with a 95% confidence level, the sample size was estimated at 341, which adjusted by potential losses, represented 409 participants. The information was analyzed using the STATA version 13 software. The information compiled allowed for a descriptive analysis, summary and dispersion measures were used to present the information according to the distribution of the data. Since this was an observational, descriptive study, no a priori statistical hypothesis was considered.

To ensure anonymity, the survey did not require any personal information from the participants. Pursuant to Resolution 008430 of 1993 of the Ministry of Health, this research was considered free of risk to the participants and the associated information was privately managed so the data of the participants was not shared with the public, and there was no intervention or transformation of the biological, physiological, psychological or social variables of the subjects participating in the research.

RESULTS

There was a sample of 219 professionals who completed the survey, of which 218 said they had performed clinical activities during the SARS-CoV-2 pandemic. The sample obtained failed to meet the estimated size, hence it is not considered to be representative of the population; the margin of error was estimated at 6 %, and the confidence level was estimated at 95 %.

The mean age of the specialists who completed the survey was 47 years, (IQR: 38-57 years). In terms of gender, 93 participants (42.6 %) were females.

Initially the respondents were asked to identify the area in which they practiced, and 213 participants (97 %) said anesthesia/surgery rooms/perioperative, followed by critical care with 40 participants (18.3 %); outpatient anesthesia 102 participants

(46.7 %), palliative care/pain medicine 15 participants (6.8 %), and other options such as sedation outside the OR, administrative and pre-anesthesia consultation in the hospital floors, cath-lab and electrophysiology, emergency department, inter alia. Another question enquired about how long they had been practicing anesthesiology and 78 participants (35.7 %) said between 5-10 years, followed by 21-30 years (30.7 %), 11-20 years (23.3 %) and finally 31 years or more (10 %).

86 (39.45 %) of the participants said they worked at two institutions — this was the most frequent answer —, followed by 75 (34.40 %) at one institution; 45 (20.64 %), at three institutions, and 12 (5.50 %), in more than three institutions.

When asked about whether they had any health disorders, 112 participants (51.37 %) said no; the rest of them have a disease and the most frequent conditions were high blood pressure and obesity with 34 participants (15.59 %) each. Other comorbidities included asthma (9.17 %), hypothyroidism (5.5 %), diabetes (3.2 %), smoking (2.7 %), and arrhythmias (1.8 %), inter alia.

The work hours of the participants during the pandemic ranged between 48 to

60 hours per week in 44.50 % (n = 97), less than 48 hours per week 20.18 % (n = 44), between 61 and 72 hours 20.18 % (n = 44), between 73 and 84 hours per week 9.17 % (n = 20) and more than 84 hours per week 5.96 % (n = 13). In contrast, the number of pre-pandemic work hours is illustrated in Table 1, and shows that although the percentage of practitioners who feel that the workload was not significantly increased, when differentiating these data based on the care area, 42.5 % (n = 17) of the critical care doctors reported an excessive workload and these are the largest percentage.

With regards to the perception about leisure time for rest, recreational activities, etc., 55.96 % (n = 122) of the population feels that leisure time is insufficient; moreover, 78.44 % (n = 171) report tiredness, fatigue, stress, depression or anxiety as a result of their work during the pandemic.

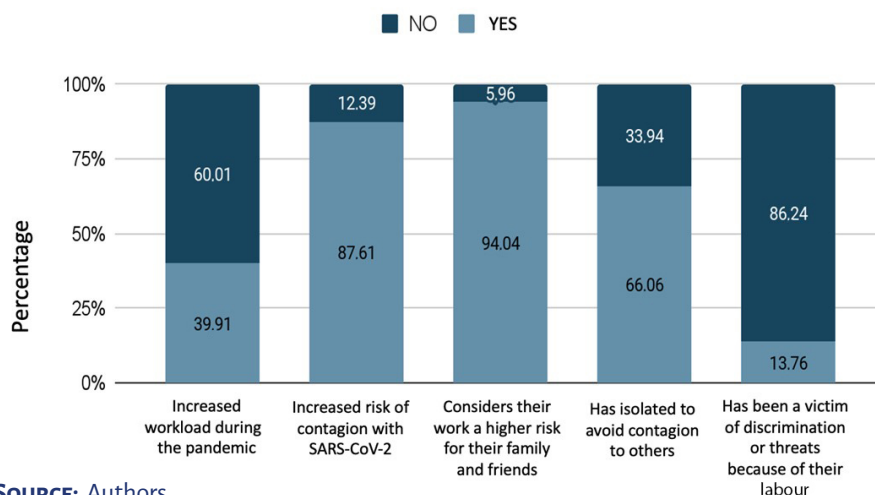
In terms of the perception of lack of safety and contagion risk exposure of both practitioners and their social and family circles, 55.95% (n=122) of the population surveyed feel moderately safe, versus 35.32 % (n = 77) who feel safe and 8.72 % (n = 19) who feel unsafe.

Similarly, the majority feels that they are at a higher risk of contagion as compared to

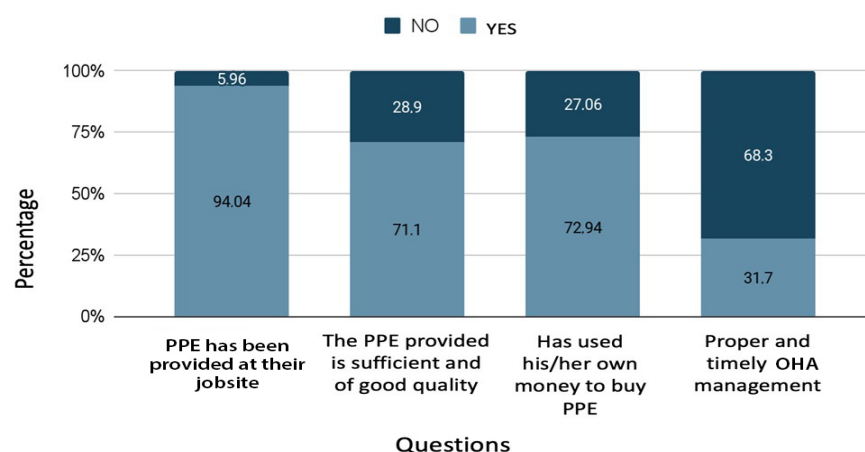
TABLE1. Change in the number of work hours as a result of the pandemic, based on area of work.

Work area	Less hours		Same number of hours		More hours		N/R	
	n	%	n	%	n	%	n	%
Anesthesia-OR/perioperative (n = 213)	92	43.1	82	38.5	39	18.3	5	2.2
Critical care (n = 40)	11	27.5	12	30	17	42.5	178	81.6
Anesthesia-outpatient consultation (n = 102)	40	39.2	43	42.1	19	18.6	116	53.2
Palliative care/pain medicine (n = 15)	4	26.6	7	46.6	4	26.6	203	93.1
Other (n = 13)	8	61.5	4	30.7	1	7.6	205	94.0

SOURCE: Authors.

FIGURE 1. Perception versus workload and lack of safety.

SOURCE: Authors.

FIGURE 2. Perception about biosecurity.

SOURCE: Authors.

TABLE 2. Perception about biosecurity standards.

Question	Yes		No	
	n	%	n	%
Are all the standards and prevention protocols for the management of SARS-COV-2 being complied within your area of work (ICU, operating rooms, doctor offices)?	170	77.9	48	22
Are all the rules and prevention protocols for SARS-COV-2/COVID-19 in the common areas in your institution (lounges, cafeterias, restaurant, hallways, parking lots) being complied with?	111	50.9	107	49
Do you believe that you have been properly and timely compensated for your work as an anesthesiologist during this pandemic?	74	33.9	144	66.1

SOURCE: Authors.

other healthcare professionals and that they represent a higher risk of contagion for their friends and families; hence they have been forced to isolate themselves to avoid such contagion, as shown in [Figure 1](#).

With regards to the perception of safety versus contagion, a large percentage of the population said they received PPE at their job and most of them feel that these PPEs are sufficient and good quality; however, 72.9 % (n = 159) expressed they used their own money to pay for their PPEs ([Figure 2](#)).

In terms of the perception about the standards and biosecurity protocols in the work areas, most of the population felt these were appropriate. In contrast, in terms of compliance with the protocols in the common areas, a significant percentage feels that it fails to contribute to the prevention of COVID-19 ([Table 2](#)).

The results with regards to resource and materials management during the SARS-CoV-2 pandemic and ethical conflicts are illustrated in [Table 3](#). The ethical and personal repercussions on the job of the anesthesiologist during the SAR-CoV-2 pandemic are listed in [Table 4](#).

DISCUSSION

The broad knowledge of anesthesiologists on respiratory anatomy and physiology has strengthened their professional practice during the SARS-CoV-2 pandemic, since they have become more valued first-line practitioners because of their broad experience and skills in the management of the airway and care of the critical patient. However, this involves many risks which in the end result in more stress and a significant impact on personal life. [\(9\)](#) This trend has been observed in all healthcare workers, with a 52.8% of burnout associated with the pandemic, among the population in a case series. [\(10\)](#)

Another trial found that the first line medical personnel had a lower frequency of burnout (13 %), as compared with those usually working in hospitalization (39 %). [\(11\)](#) Similarly, a study by Dimitru et

TABLE 3. Management of resources and materials during the SARS-CoV-2/COVID-19 pandemic and ethical conflicts.

Question	Yes		No		N/R	
	n	%	n	%	n	%
Do you feel that the resources available in your hospital unit have been enough to deliver optimum patient care?	144	66.06	64	29.35	10	4.5
Have you felt that the decisions you have to make with regards to prioritizing resources to treat patients in the context of the pandemic exceed your professional and personal abilities?	81	37.16	110	50.46	27	12.38
Do you agree with the resource prioritization strategies that have been adopted?	134	61.47	65	29.82	19	8.71
Have you been forced to decide which patient to prioritize for the use of ventilators during the pandemic?	21	9.63	129	59.17	68	31.19
Have you been forced to decide which patient to prioritize for the allocation of ICU beds during the pandemic?	43	19.72	106	48.62	69	31.65
Have you experienced any difficulties in the interaction with the surgical team while delivering care to a SARS-CoV-2 patient?	107	49.08	87	39.91	24	11

SOURCE: Authors.**TABLE 4.** Ethical and personal repercussions on the job of the anesthesiologists during the SARS-CoV-2/COVID-19 pandemic.

Question	Yes		No		N/R	
	n	%	n	%	n	%
At any point during the SARS-CoV-2/COVID-19 pandemic have you been forced to make a clinical decision against your own values?	36	16.51	166	76.15	16	7.34
At any point during the COVID-19 pandemic have you felt that the medical decisions you made were not right?	35	16.06	166	76.15	17	7.79
Have you ever experienced an ethical conflict between deciding whether to resuscitate or not patients with SARS-CoV-2?	32	14.68	142	65.14	44	20.18
Do you feel that the lack of experience with regards to the pandemic has made decision-making much more difficult to deal with?	128	58.72	69	31.65	21	9.63
Do you perceive that the shortage of resources during the pandemic has made decision-making much more difficult to deal with?	110	50.46	68	31.19	40	18.3

SOURCE: Authors.

al. reported a 66% prevalence of burnout among first line workers and 86 % among the conventional hospitalization personnel. (12). Both studies suggested the hypothesis that this unusual trend was because first line workers experienced a stronger sense of belonging and control of the situation. (11,12) Our study delved into whether the workload has been excessive and/or detrimental, and we found that two thirds of the respondents do not share this view. Associating these percentages with their areas of service, it was possible to conclude that the practitioners working in critical care (since several anesthesiologists were transferred from the OR to the ICUs) are the ones who perceive an excessive and/or detrimental workload increase during the pandemic. Similarly, the respondents feel that the work hours have increased by over one third as compared to the pre-pandemic period. Hence, it may be suggested that although the work hours have increased, in most cases it has not been excessive and/or detrimental.

Anesthesiologists have been negatively affected by the SARS-CoV-2 pandemic due to increase in the flow of patients requiring sedation and invasive mechanical ventilation protocols. This has led to the transfer of these practitioners from their usual activities in the operating room, to critical care units (ICUs). Moreover, many procedures must be conducted in confirmed SARS-CoV-2 infected patients, which represents an even more stressful situation for the anesthesiologist. (13) Anesthesiologists have been summoned outside the OR to intubate critical patients, and to take shifts in the ICUs. (14) The American Society of Anesthesiologists (ASA) conducted a survey similar to ours, finding that many anesthesiologists were transferred from the OR to the ICU, to assist with intubation, ventilation strategies, and all aspects involved in multiple organ failure. (15) Furthermore, the anesthesiologists that were recruited to work as first line, reported that they worked longer hours, in an unpredictable and irregular fashion. Also, some of them

experienced a shortage of PPEs, even during endotracheal intubation procedures or while manipulating the ventilators. (16)

In our population, with regards to the perception of the level of on-the-job safety, the findings showed that a large percentage of the practitioners surveyed feel moderately safe (55.9 %, $n = 122$). Such perception may be influenced by variables associated with biosecurity aspects implemented in their institutions; one of them is the supply of PPE. Around 94.1 % ($n = 205$) feel that the PPE are adequate for a safe performance of the anesthesiologist; likewise, a high percentage said that the PPE were sufficient in terms of quantity and quality. However, when asked about the need to use their own resources, 72.9 % ($n = 159$) said they had to use their own money to pay for their PPE. This situation could be the result of the Occupational Hazard Administrators (OHA) early in the pandemic, which proved to be insufficient for delivering PPE to the professional personnel. This situation led to the need to use their own resources to buy those equipment, particularly among the practitioners working in anesthesiology who were in a more direct contact with aerosols.

Two main components were analyzed in this category: the lack of safety in the hospital setting and the risk of such hospital exposure for the social environment of the anesthesiologist. In terms of the in-hospital environment, 87.6 % ($n = 191$) of the practitioners feel they have a higher risk of contagion by SARS-CoV-2, versus other healthcare professionals; likewise, 94 % ($n = 205$) considers this a risk for their social environment (family, friends, etc.). This may be partially explained by the procedures that the anesthesiologist is required to conduct, which involve higher aerosol exposure than healthcare professionals working in other areas. Consequently, 66 % ($n = 144$) said they had to isolate themselves from their families to prevent contagion and this is a situation that may impact their mental health in the short, medium and long term.

This is evidence of the lack of logistics in terms of adequate institutional protocols to provide an optimal work environment for their professionals. Similarly, 68.3 % ($n = 149$) of the respondents said the OHA performance was untimely. This shows a lack of strategies to ensure the safety of healthcare practitioners who work or have worked during the pandemic.

Similarly, from the extra-institutional perspective, anesthesiologists have also perceived lack of safety. The study identified that 13.7 % ($n = 30$) have been victims of some sort of discrimination or threat due to their work during the pandemic. According to a report from the Ministry of Health, as of October 2020, 242 attacks had been reported against healthcare professionals in Colombia – the highest rate in 20 years – which represents a 63% increase versus the same period in the previous year. (17) These findings are alarming, notwithstanding the low proportion, and directly impact personnel safety, with an additional psychological burden and higher risks as a result of such events. Finally, despite the obvious bio-psycho-social impact of the pandemic on anesthesiologists, 66 % ($n = 144$) of them feel that they have not been timely and adequately remunerated.

In terms of the results obtained with regards to ethical dilemmas, the findings showed that more than fifty percent of the respondents had sufficient resources and medical equipment to deliver proper patient care. Moreover, they agreed with the health resources prioritization strategies. Though half of them said that the shortage of resources during the pandemic involved difficult decision-making, apparently none of the participants were involved in ethical dilemmas difficult to deal with.

With regards to clinical decision-making by healthcare practitioners during the pandemic, there is a large percentage of anesthesiologists who had to make decisions contrary to their own set of values; they also said they made wrong medical decisions. Moreover, half of them felt that the decisions made in terms of prioritizing resources to take care of patients during the

pandemic did not exceed their professional and personal abilities. Additionally, around one half of the respondents said that they did not have to deny access to patients to the ICU because of lack of medical resources. However, a number of participants ($n = 21$, 9.63 %) did say that they were forced to prioritize patients for the allocation of ventilators for SARS-CoV-2 patients.

In terms of the emotional burden experienced by the respondents, approximately fifty percent feel that the lack of experience with regards to the pandemic makes decision-making difficult; they also believe that in order to tolerate the work during the months of the pandemic, they had to become less empathetic and experienced difficulties in the interaction with the surgical team, while delivering care to a SARS-CoV-2 infected patient. In particular, one fourth of the respondents had faced some sort of ethical dilemma when deciding whether to resuscitate or not SARS-CoV-2 infected patients. So it was clear that most of the respondents believe that they have been affected in terms of decision-making processes, with regards to resource availability, the quality of care provided and the emotional demand experienced. However, it should be noted that a number of respondents were affected in terms of what they considered the right decision, or decisions that infringed their ethical professional values.

Some of the limitations of the study include the variability in the time window during which the surveys were administered, considering that the saturation of healthcare services has been heterogenous among the various cities and in terms of the epidemiological peaks. Moreover, the estimated sample size was not accomplished and the questionnaire was not subject to a formal validation process. Therefore, it is difficult to generalize the answers obtained and the sample may not be representative of the population of Colombian anesthesiologists. However, the information collected maybe the foundation for further studies focused on a larger population of anesthesiologists,

or addressed to other related groups, such as anesthesiology residents or trainees in the area, or for an initial approach to the situation that developed in Colombia as a consequence of the pandemic.

Finally, we believe that it is important to acknowledge the efforts made by many anesthesiologists worldwide, who work together with other medical professionals to assist in the treatment and management of patients affected by the SARS-CoV-2 virus.

ETHICAL RESPONSIBILITIES

Endorsement of the ethics committee

This study was reviewed and endorsed by the Institutional Committee of Ethics in Research of Universidad El Bosque, at its regular session held in February 23, 2021, pursuant to Minutes N.º 003-2021.

Protection of humans and animals

The authors declare that no experiments in humans or animals were conducted for this research. The authors declare that the procedures followed were consistent with the ethical standards of the responsible human experimentation committee and in accordance with the World Medical Association and the Declaration of Helsinki.

Confidentiality of the data

The authors declare that they followed the protocols of their work institution regarding disclosure of patient data.

Right to privacy and informed consent

The authors declare that no patient data have been disclosed in this article. The authors have obtained the informed consent of the patients and/or subjects mentioned in this article. This document is in possession of the corresponding author.

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Contribution by the authors

SA and MM: conceived the idea.

SA, MM, BJPB, NSB, MJMP, MJA, NGZ, MPP, JJM, VM, NFF, GRB and ICP: helped with the collection and preparation of data, and with the initial drafting of the manuscript, the final draft, the review and approval of the final manuscript.

NSB: completed the statistical analysis.

Assistance for the study

None declared.

Conflict of interests

NSB and MM work with the Colombian Society of Anesthesiology and Resuscitation (S.C.A.R.E.).

Presentations

None declared.

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COMPLEMENTARY MATERIAL**Safety and decision-making: Impact of the SARS-CoV-2 pandemic on Colombian anesthesiologists****Questionnaire***Completion date:***General questions**

1. Have you conducted any clinical activity during the SARS-CoV-2/COVID-19 pandemic?

(YES/NO)

If your answer is "No", do not answer the following questions

2. Gender

*Female**Male**Not specified*

3. Age

Drop-down list: 18-90 or more

4. Which is your area of activity? (You may list more than one activity).

*Anesthesia- Operating Rooms/ Perioperative**Critical care**Anesthesia-Outpatient clinic**Palliative care / Pain medicine**Other area/Which?*

5. For how long have you been practicing as anesthesiologists?

*5-10 years**11-20 years**21-30 years**31 years or +*

6. In how many institutions do you work?

*1**2**3**More than 3*

7. Do you have any of the following conditions?

*Hypertension**Asthma**Immunosuppression**Smoking**Diabetes**Obesity**Other / Which?***Safety**

1. Currently you work:

*Less than 48 hours per week**Between 48 to 60 hours per week**Between 61 to 72 hours per week**Between 73 and 84 hours per week**More than 84 hours per week*

2. As compared to the "pre-pandemic" era, you currently work:

*Less hours**Same number of hours**More hours*

3. Do you feel you have enough time to rest, spend time with the family, recreational activities, exercise or any activity other than work?

(YES/NO)

4. Do you think that the workload has increased excessively and/or detrimentally during this pandemic?

(YES/NO)

5. Are you under the impression that your job demands have resulted in tiredness, fatigue, stress, depression or anxiety?

(YES/NO)

6. Do you feel that you are exposed to a higher risk of developing a SARS-CoV-2/ COVID-19 infection in your professional practice, as compared to other healthcare practitioners?

(YES/NO)

7. Do you think that your work represents a higher risk for the safety of your family, friends or the people around you?

(YES/NO)

8. At any point during the pandemic have you isolated yourself from your family to avoid contagion?

(YES/NO)

9. With regards to your professional practice during the SARS-CoV-2 pandemic, tell us your perception in terms of the level of safety in your work environment:

*I feel safe**Moderately safe**I don't feel safe*

10. Are adequate personal protection equipment being provided for your work at the institution (s) where you work?

(YES/NO)

11. Are the personal protection equipment provided by the institution (s) where you work enough (in terms of quantity and quality)?

(YES/NO)

12. Have you ever used your own money to pay for your personal protection equipment?

(YES/NO)

13. Are all the rules and protocols regarding the prevention and management of SARS-CoV-2 being adhered to in the area where you work (ICU, operating rooms, doctor offices)?

(YES/NO)

14. Are all the rules and protocols regarding the prevention of SARS-CoV-2-19 being followed in the common areas at your institution (lounges, cafeterias, restaurant, hallways, parking lot)?

(YES/NO)

15. Do you consider that the performance of the Occupational Hazard Administrators agencies has been adequate and timely during this pandemic?

(YES/NO)

16. Have you experienced any type of discrimination or threats as a result of your job during SARS-CoV-2/COVID-19 pandemic?

(YES/NO)

17. Do you think you have received timely and adequate compensation for your job as an anesthesiologist during this pandemic?

(YES/NO)

Decision making – Ethical considerations

1. Do you feel that the resources available in your hospital unit have been enough to optimally deliver patient care?

(YES/NO)

2. Do you agree with the resource prioritization strategies established?

(YES/NO)

3. Have you felt that the decisions you have to make with regards to prioritization of resources to treat patients in the context of the pandemic exceed your professional and personal abilities?

(YES/NO)

4. At any point during the SARS-CoV-2/COVID-19 pandemic were you required to make a clinical decision contrary to your own values?

(YES/NO)

5. At any point during the COVID-19 pandemic have you felt that the medical decisions you made have not been right?

(YES/NO)

6. Have you been in a position to deny access to a patient because of lack of space in your hospital unit?

(YES/NO/ NOT APPLICABLE)

7. During the pandemic, have you faced a situation in which you had to choose which patient to prioritize for the allocation of ICU beds?

(YES/NO/ NOT APPLICABLE)

8. During the pandemic, have you been faced with a situation of choosing which patient to prioritize to use a ventilator?

(YES/NO/ NOT APPLICABLE)

9. Have you ever experienced an ethical conflict when deciding whether to resuscitate or not patients with SARS-CoV 2?

(YES/NO)

10. Do you feel that the shortage of resources during the pandemic have made decision-making much more difficult to deal with?

(YES/NO)

11. Do you feel that the lack of experience versus the pandemic has made decision-making much more difficult to deal with?

(YES/NO)

12. Have you felt any difficulty in the interaction with the surgical team while taking care of a patient with SARS-CoV-2?

(YES/NO)

13. Do you feel that in order to cope with the workload over all these months you have been forced to become less empathetic?

(YES/NO)