



JUNIOR DOCTORS NETWORK

empowering young physicians to work together towards a healthier world through advocacy, education, and international collaboration

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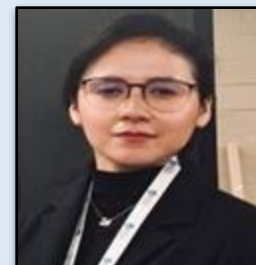
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Words from the JDN Chairperson

**Dr. Uchechukwu Arum, MD.
Chairperson 2022-2023
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Dear Esteemed Colleagues,

I want to express my sincere appreciation as I take this opportunity to share my thoughts in this exceptional edition of our newsletter. This edition is dedicated to the critical intersection of Medical Education and Medical Ethics and is the result of a collaborative effort between our medical ethics officer and medical education director.

As we embark on our journey as junior healthcare professionals, our foundation is built upon education, and guided by the fundamental principles of ethics. These principles collectively serve as the cornerstone of our esteemed profession.

Medical Education is an enduring and lifelong pursuit that molds us into compassionate and skilled healers. Within this edition, you will discover enlightening articles covering crucial aspects of medical education. Conversely, Medical Ethics acts as our moral compass, guiding us through intricate decision-making with unwavering integrity. In this newsletter, we engage in profound discussions addressing ethical dilemmas that hold paramount importance in our field.

I wholeheartedly encourage each one of you to actively participate in the discussions presented here. May our collective wisdom illuminate the path toward a future in medicine characterized by compassion and excellence. I extend my heartfelt gratitude to all of you for your steadfast dedication to our noble profession.

Furthermore, I would like to extend my deep appreciation to the publications team for their tireless efforts in bringing this edition to fruition. I also applaud all the authors who contributed their valuable insights. I warmly invite you to delve into the enriching content of this newsletter.

Thank you.

Dr. Uchechukwu Arum, MD.

Words from the Medical Ethics Officer

Dr. Jihoo Lee, MD.
Medical Ethics Officer 2022–2023
Junior Doctors Network
World Medical Association



Dear JDN colleagues,

I'm delighted to present JDN's first-ever Newsletter special edition dedicated to both Medical Education and Medical Ethics. I want to extend my heartfelt thanks to the JDN authors who contributed their fantastic articles, as well as to our publication team for their hard work, and of course my colleague and friend the Medical Education Director.

Medicine is more than just a job; it's a calling to heal, care, and uphold the highest ethical standards. Today, ethics is in the spotlight due to complex global issues like resource allocation during COVID-19, end-of-life decisions, and the use of AI in healthcare. These topics demand a strong ethical foundation for making the right decisions, both at the national and global level. In addition, ethical concerns within medical workplaces, such as discrimination and burnout, are becoming more pressing matters in these days.

This special edition focuses on the important intersection of medical education and medical ethics. In our ever-changing healthcare world, these two aspects are crucial for creating compassionate, skilled, and ethically responsible doctors. Our collaborative effort, with its insightful articles, aims to shed light on key aspects that will shape the future of healthcare.

We hope these articles will spark meaningful discussions, drive positive change, and champion the values that define compassionate and ethical medical practice. We look forward to your contributions to future JDN activities. Enjoy reading!

Stay connected, and let your voices be heard worldwide!
Best wishes,

Dr. Jihoo Lee, MD.

Words from the Medical Education Director

Dr. Balkiss Abdelmoula, MD. MPH.
Medical Education Director 2022-2023
Junior Doctors Network
World Medical Association



Dear colleagues,

I am honored to address you in this special edition of our JDN newsletter, dedicated to the vital intersection of medical education and ethics. It has been a privilege to collaborate with my friends and colleagues, the Medical Ethics Officer and the Publications Director to bring you this insightful edition. This endeavor wouldn't have been possible without the invaluable contributions of all our authors, whose dedication to advancing medical education and ethics shines through in each article.

In this edition, we delve into critical issues shaping contemporary medical practice, and we address different challenges faced by doctors nowadays, such as workplace discrimination and mental health struggles. We also explore the intersection of climate change and health in medical education, as well as Artificial Intelligence's role in the medical practice. As our field undergoes significant shifts, it is our collective duty to remain well-equipped to better navigate such complex issues and address the resulting health implications while upholding high ethical standards.

As caretakers of human lives, we are in fact entrusted with the extraordinary privilege of ensuring the dignity, autonomy, and well-being of our patients. The commitment to continuous learning is thus both a professional duty and an ethical imperative. Staying abreast of emerging technologies, therapies, and research findings is essential to providing the best possible care to our patients. As junior doctors, we are both the torchbearers of this legacy and the shapers of the future of healthcare.

By approaching our medical education and practice with unwavering dedication and ethical fortitude, we not only honor the noble profession we have chosen but also leave an indelible mark on the lives of those we serve.

Thank you for your steadfast commitment to improving healthcare.
Warm regards,

Dr. Balkiss Abdelmoula, MD. MPH.

Words from the Publications Director

**Dr. Jeazul Ponce Hernandez, MD MSc. MPH.
Publications Director 2022–2023
Junior Doctors Network
World Medical Association**



Dear JDN colleagues,

On behalf of the Publications Team (2022–2023) of the Junior Doctors Network (JDN), we are honoured to share this first of its kind special edition of the JDN Newsletter on both Medical Education and Medical Ethics with you all.

Medical ethics and medical education are key to promoting universal healthcare coverage. Universal health is indispensable for sustainable human development and one of the factors to achieve it is the adequate availability and distribution of health personnel in the countries. This is based on medical education with humanistic, holistic approaches, prioritizing early attention to diseases, their prevention and early detection.

Shortage of health personnel is a factor hindering the achievement of universal healthcare. Despite the increasing use of prospective methods to plan the training of physicians in the medium and long term, it has not been possible to solve the deficit and the availability of physicians is still lower in some regions of the world; Latin America, Africa, even in certain European countries where there is a talent drain and some areas remain uncovered. So, we have the obligation to raise our voice in some way, in order to improve medical education and stop this deficit of health human resources.

I feel very proud to contribute to this special edition with many interesting topics covered, and I personally encourage more JDN members to continue sharing their insights and activities worldwide.

I finally would like to thank you all for trusting us again and making this collaborative effort possible. It is an honour and pleasure to be part of this initiative.

Sincerely yours,

Dr. Jeazul Ponce Hernandez MD. MPH. Msc.

Enhancing Holistic End-of-Life Care: Empowering Junior Doctors through Comprehensive Medical Education and Training

Dr. Jihoo Lee, MD.
Medical Ethics Officer 2022–2023
Junior Doctors Network
World Medical Association



I vividly remember persuading a 70-year-old patient with lung cancer to sign his physician's orders for life-sustaining treatment (POLST). Despite being in an advanced stage of the disease, he eagerly wanted to enroll in a clinical trial. However, he was hospitalized with respiratory failure just before starting the trial. As a new resident, I was assigned to him without immediate access to his attending physician. With the only help of a second-year resident, I managed to convince the patient to forgo aggressive treatments. Regrettably, he passed away that day, leaving me deeply disappointed and depressed for a while. This incident exposed a critical gap in the medical education system in the Republic of Korea—a lack of structured support for junior doctors grappling with life-sustaining treatment decisions. Additionally, there is no mechanism in place to ease the emotional burdens borne by medical personnel during the process of making such decisions, further underscoring the need for improvement.

In 2016, Korea implemented the Hospice and Palliative Care and Decisions on Life-Sustaining Treatment for Patients at the End-of-Life (hereafter referred to as the LST Decisions Act), which allowed individuals to express their end-of-life care preferences (1). Since then, medical training has incorporated education on the duties outlined in the Act. During my residency, my colleagues and I received in-classroom lectures on Hospice and Palliative care three to four times a year. However, and despite progress in the legal and cultural aspects of this care, significant challenges remain in ensuring death with dignity, affecting patients and medical staff, including junior doctors.

A study on the Act conducted in 2020 revealed that resident physicians faced challenges with complex procedures. The research team carried out a survey targeting a total of 267 resident physicians, with 139 respondents in the first year of enforcement and 128 respondents in the second year. In the first-year survey, 67.9% of residents found procedures challenging, decreasing to 53.9% in the second year. In addition, the percentage of residents feeling psychological burdens increased from 40.3% to 51.6%. In the medical field, significant pressure exists in determining the terminal stage of a patient's illness, especially for junior doctors with less experience. The study results thus imply that case-based and practical education in the medical field should be provided for residents to realize the objectives of the LST Decisions Act (2).

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Unfortunately, since 2020, the situation of end-of-life care has deteriorated due to the COVID-19 pandemic. Due to hospital visitation restrictions for infection control, not only were dying patients unable to spend their last moments with their families, but it also became extremely challenging for medical staff to engage in discussions about life-sustaining treatment with the patients and their caregivers. Although discussions on this topic have been raised in academia and the public, tangled issues such as an overwhelmed healthcare system in implementing the LST Decisions Act and the social consensus on life-sustaining treatment are still left far behind to be addressed (3). Even in this unsettled moment, medical staff oversee critical roles regarding end-of-life care in initiating advance care planning, facilitating patient-family communication, and alleviating patient and family suffering (4). The high-quality education and training curriculum on end-of-life care for junior doctors should be provided.

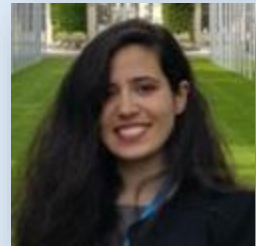
While the World Medical Association (WMA) has recognized the importance of end-of-life care (5), it is essential to consider regional contexts, including cultural, religious, and historical factors when addressing this sensitive topic. Although the global momentum may have weakened during the pandemic, the necessity for comprehensive end-of-life care has only strengthened due to the increased risk of death from COVID-19. As physicians, we must prioritize human dignity and provide appropriate treatment and medical services. It is crucial to lead junior doctors to be well-trained in both academics and ethics toward implementing systematic and realistic end-of-life care medical education.

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Climate Change and Health in Medical Education

Dr. Balkiss Abdelmoula, MD. MPH.
Medical Education Director 2022-2023
Junior Doctors Network
World Medical Association



Introduction

Climate change is one of the 21st century's most pressing issues and one of the most significant threats that humanity faces today. Its negative impacts are felt in various aspects of our lives, including health. These impacts span from increased frequency of extreme weather events to shortening global food supplies. The changing climate is also causing a shift in the distribution of diseases, leading to the emergence of new diseases, and exacerbating existing ones (1). While the intersection between climate change and health is more and more evident, this paper would explore if medical schools have already started integrating this thematic into their curricula, why it is important to do so, and which aspects are relevant to medical students and medical doctors in both their education and their practice in this regard.

Discussion

According to the World Health Organization (WHO), there is an urgent need for sustained multidisciplinary climate education to be integrated within medical curricula and across a continuum of training for healthcare professionals (2). Nevertheless, medical schools have been slow in adapting their curricula to health-related challenges brought about by climate change. According to a recent Lancet article, only a minority of medical curricula has indeed incorporated planetary health and climate change impacts on health (3). This is mainly due to a lack of recognition of the complex and growing interconnectedness between environmental changes and human health (4). In absence of comprehensive medical curricula covering these interlinkages, medical students and thus future healthcare providers are left without adequate preparations to deal with the challenges arising from the intersection between climate change and health. That's why, programs in medical schools require transformative educational methods that consider such complex thematic including sustainability, resilience, and related socioeconomic aspects of equity, justice, and human rights (5). In this regard, only a few universities across the world have started their own initiatives transforming health professionals' education in recent years, such as in Germany, the USA and China (5, 6, 7). In a recent study from Canada (8), climate change was found to be an important determinant of health according to most medical students (88%). Many believed that it would affect their future patients' health (89.6%) and that it should be incorporated into their medical curricula (85.6%).

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While understanding how climate change affects the environment may not be deemed imperative within the curriculum of healthcare professionals, comprehending the underlying mechanisms through which climate change influences human health is of paramount importance. Notably, healthcare professionals must possess a firm grasp of the intricate interplay between climate change and human health, encompassing factors such as air pollution, waterborne illnesses, and food insecurity (7).

Of particular significance, air pollution stands out as a predominant health hazard linked to climate change. The escalation of global temperatures contributes to heightened levels of air pollutants, thereby precipitating adverse respiratory outcomes including asthma and bronchitis. Accordingly, medical students must acquire a profound understanding of the ramifications of air pollution on respiratory well-being, coupled with the ability to proficiently diagnose and manage respiratory conditions stemming from such pollutants.

Waterborne diseases emerge as another salient health peril entwined with the ramifications of climate change. The rising global temperatures disrupt the water cycle, engendering more frequent and intense occurrences of floods, droughts, and storms. Such climatic perturbations subsequently foster water contamination, serving as a conduit for the dissemination of waterborne ailments such as cholera, typhoid, and hepatitis A. To this end, medical students necessitate a comprehensive grasp of the modes of propagation of waterborne diseases, alongside adeptness in their diagnostic and therapeutic approaches.

Furthermore, the spectrum of substantial health risks stemming from climate change extends to encompass food insecurity, warranting integral inclusion in the educational trajectory of medical students. Evidently, climatic fluctuations can precipitate crop failure, scarcities in food supplies, and a surge in food prices, collectively culminating in malnutrition, hunger, and even psychosocial well-being challenges. As such, a holistic understanding of the intricate relationship between climate change-induced food insecurity and its health ramifications is imperative for future medical practitioners.

To cultivate their capacity to serve as proponents of climate change mitigation and adaptation, medical students must acquire insights into the involvement of healthcare providers in combating climate change. This extends beyond patient interactions to encompass effective communication with policymakers, elucidating the intricate nexus between climate dynamics and human health (9). A comprehensive educational framework should encompass the ethical dimensions inherent to these issues, including considerations of social equity and health parity (10). These pivotal facets must be integrated into the fabric of medical curricula to foster a profound grasp of the broader implications. By nurturing an appreciation of the ethical underpinnings, medical students can more effectively navigate the intricacies of addressing climate change-related health

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disparities. Through comprehensive training, medical students can evolve into proactive advocates for climate-conscious healthcare delivery, adept at engaging with patients, policymakers, and ethical considerations alike. This holistic approach not only fortifies the healthcare sector's response to climate-related health threats but also instills a sense of responsibility and foresight in the medical professionals of tomorrow.

Conclusion

The intersection between climate change and health is a fundamental area that needs to be addressed in medical education so that physicians find themselves adequately prepared to deal with the health impacts of climate change and become advocates for climate change mitigation and adaptation. An enriched educational paradigm that encompasses the multifaceted relationships between climate change and health is imperative for nurturing competent healthcare providers equipped to confront the multifarious challenges posed by these global phenomena and safeguard the health of individuals and communities.

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Revolutionizing Healthcare: The Role of Artificial Intelligence in Modern Medicine

Dr. Daniel Andrés Sierra García, MD.
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Artificial intelligence (AI) is already transforming healthcare! An 82-year-old patient with an aggressive form of blood cancer, in whom standard chemotherapy failed, entered remission after a successful personalized medicine approach. AI used a tissue sample to select a proper drug specific to the patient, which was thought ineffective for that type of cancer. But it worked. AI saved a patient's life! This story was recently published by the MIT Technology Reviews, but there are still many concerns about the use of AI in today's medical practice.

What is AI and why is it important for health?

AI is a collection of technologies. As such, some of these technologies are more relevant to healthcare. Surgical robots are the most known technology, but in fact, AI is broadly implemented in other fields: early detection of atrial fibrillation, continuous glucose monitoring, imaging processing and histopathological diagnosis, test interpretation and risk-predictive tools (1).

The modernization of healthcare has translated into a flood of data from electronic medical records. This data-driven modernization is leading to the search for synergies between medicine and AI. In this regard, AI has the potential to analyze piles of data, extract the important aspects, analyze the information, and draw conclusions.² AI is evolving rapidly together with other fields of population health, -omics, telemedicine, and precision medicine (1,3).

In some medical specialties, AI implementation is already successful. In precision medicine, which aims to tailor medical treatment to the individual characteristics of the patients, AI easily allows physicians to determine relevant mutations and identify ideal medications, increasing diagnostic accuracy, and personalizing treatments tailored-made for each patient. In diagnostic radiology, AI can input meaningful insights that support clinical decisions, helping radiologists reach to a conclusion that will be further discussed with other physicians involved in the case.

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The same happens in pathology since AI can assist trained pathologists with detecting certain findings that can lead to a diagnosis. In ophthalmology, AI can help detect early-stage retinopathies and in cardiology, it can improve cardiovascular risk prediction. AI has the capacity to use great amounts of data for making precise diagnostics and predicting disease, exceeding any human capacity and knowledge (2).

“Hello Mr. Doe, your robot doctor will see you now.”

AI can now diagnose skin cancer more accurately than an experienced dermatologist, faster and more efficiently, without requiring a decade-long intense medical education.⁴ This progress in AI is leading to a threatening question: will AI displace physicians, or will it help to make them more effective or a little bit of both? (2)

On this thought, even when AI can take over any medical specialty, it seems that it would most likely replace those physicians working with digital information, like radiologists and pathologists. But even these professionals do more than reading and interpreting images and tissue slides.⁵ Similarly, a neurological examination in the routine physical exam requires a high level of patient-physician interaction and critical thinking, a work that neurologists have perfected and are experts on.² Another constantly debated aspect of adopting AI is the dehumanization of medicine (1).

AI is still not capable of engaging with patients in a trustful, reassuring or empathic way.² Some of the crucial skills and characteristics needed for patient-doctor relations are uniquely human skills, like empathy, persuasion and big-picture integration (5).

Smart medical technologies are thought to support physicians in caring for patients.¹ AI systems will not replace clinicians but will aid them in the process of care for patients (5).

It is better to, instead, understand that AI will augment physicians rather than replace them, becoming an important routine aid in healthcare (2).

Revolutionizing Healthcare: The Role of Artificial Intelligence in Modern Medicine

For or against?

As with any other big change, implementing AI will translate into rejection. This is mainly due to the lack of basic and continuing education in this regard. To tackle this, medical curricula are starting to get a stronger approach to hard and computational sciences, in the search of training augmented doctors, and physicians with both clinical experience and digital expertise adapted to manage the digital transition. Augmented doctors would be the drivers of innovation and research, building digital strategies to solve modern health problems (1).

Final reflections

While right now AI in medicine is still in its early stages, it seems like a promising tool that will improve healthcare delivery. AI will certainly help to make medicine more accurate, more comprehensive, and potentially less expensive by preempting disease, preventing side effects, and reducing unnecessary testing. We can see this change as a threat, or we can see it as an opportunity. It is on us the choose to learn how to wisely use it.

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Ethical Considerations in the Age of MOOCs: Exploring the Role of Massive Open Online Courses in Medical Education

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In recent years, the use of massive open online courses (MOOCs) in medical education has gained significant attention due to their ability to provide learners with access to educational resources and training opportunities worldwide. However, the use of MOOCs in medical education has also raised ethical concerns that need to be addressed (1). This article will explore the ethical considerations associated with the use of MOOCs in medical education and suggest solutions to these issues.

One of the primary ethical concerns associated with the use of MOOCs in medical education is the quality of education provided. MOOCs may not provide learners with the same level of quality education as traditional medical education (2). Practical training and hands-on experience are essential components of medical education that learners may not have access to through MOOCs. To address this concern, MOOCs can be designed to incorporate practical training and hands-on experience through virtual simulations and other innovative technologies. Additionally, MOOCs can provide learners with access to high-quality educational resources that can supplement traditional medical education. By combining traditional medical education with MOOCs, learners can receive a well-rounded education that provide the necessary skills and knowledge to practice medicine (3).

Another ethical consideration associated with the use of MOOCs in medical education is the issue of certification. Regulatory bodies may not recognize MOOCs, and learners may not receive the necessary certification to practice medicine (4). To address this concern, a regulatory framework that recognizes the certification provided by MOOCs should be established. This framework can be developed in collaboration with regulatory bodies and medical education institutions to ensure that learners who complete MOOCs receive the necessary certification to practice medicine. Additionally, MOOCs can be designed to align with the standards set by regulatory bodies to ensure that the certification provided meets the required standards.

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The issue of access is another ethical consideration associated with the use of MOOCs in medical education. MOOCs may not be accessible to all medical learners, and access to technology and to internet may be a barrier to learners from disadvantaged socio-economical settings (5). To address this concern, medical education institutions can provide learners with the necessary tools and resources to access MOOCs, including access to computers, internet connectivity, and training on how to use these tools. Additionally, MOOCs can be designed to be accessible to learners with disabilities, ensuring that they are not left behind. Another solution is to make MOOCs available in different languages to cater to learners from different regions.

In conclusion, while MOOCs have the potential to revolutionize medical education, ethical considerations must be addressed to ensure their effective integration into the medical education system. Quality education, certification, and accessibility should be considered when implementing MOOCs in medical education. MOOCs should not replace traditional medical education but rather complement it. Therefore, medical institutions need to develop strategies that ensure the proper integration of MOOCs with traditional medical education. As we continue to navigate the age of MOOCs, it is important to continue exploring and addressing the ethical considerations of online medical education. This will help ensure that medical students and junior doctors have access to quality education, regardless of their location, economic status, or any other limiting factor. MOOCs can be a powerful tool in democratizing medical education and bridging gaps in healthcare access, but only if used ethically and responsibly.

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Mental Health of Physicians in Training

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Introduction

Medical training is a rigorous and demanding process that can take a significant toll on the mental health of physicians in training. The stress of long working hours, high-pressure work environments, and the stigma associated with mental health problems in the medical community can contribute to the high prevalence of mental health problems among physicians in training. This article will explore recent research on the mental health of physicians in training and potential solutions to address this issue.

The Prevalence of Mental Health Problems Among Physicians in Training

Studies suggest that physicians in training are at higher risk for mental health problems compared to the general population. A systematic review and meta-analysis published in 2021 analyzed data from 37 studies that included a total of 26,678 medical students and residents. The study found that the prevalence of depression, anxiety, and stress was significantly higher among medical students and residents than in the general population (1). Another study published in 2019 found that the prevalence of burnout was also higher among medical students and residents compared to the general population (2).

Factors Contributing to Mental Health Problems

Several factors contribute to the higher prevalence of mental health problems among physicians in training. The demanding nature of medical training, including long working hours, lack of control over workloads, and high-pressure work environments, is a significant source of stress. A study published in 2020 found that residents working longer shifts reported higher levels of burnout, depression, and anxiety (3). The isolation and stigma associated with mental health problems within the medical community can also make it challenging for physicians in training to seek help. A survey published in 2019 found that 40% of residents reported feeling uncomfortable seeking mental health treatment (4).

Potential Solutions

Several interventions can help address the mental health problems faced by physicians in training.

Mental Health of Physicians in Training

A study published in 2020 found that a mindfulness-based stress reduction program improved well-being and reduced burnout among residents (5). Another study published in 2021 found that a brief intervention program improved mental health outcomes among medical students (5). Furthermore, it is essential to address the culture of medicine that perpetuates the stigma surrounding mental health problems. A study published in 2023 found that residents who perceived their program as supportive of their mental health reported lower levels of burnout and depression (6). In addition to these interventions, it is crucial to address the work environment of physicians in training. A study published in 2022 found that improving work conditions, such as reducing the number of consecutive work hours, improved mental health outcomes among residents (7). Another study published in 2022 found that increased supervision and support from attending physicians reduced the risk of burnout among residents (8).

The Tunisian case

Medical residents in Tunisia face significant mental health challenges, which can have negative impacts on their well-being and professional development. A cross-sectional study conducted in Tunisia found that medical residents reported high levels of stress and symptoms of anxiety and depression, with nearly 40% of participants meeting the criteria for a depressive disorder. The study also found that long working hours and work overload were contributing factors to their mental health difficulties. Despite the significant mental health challenges faced by medical residents in Tunisia, access to mental health services remains limited. The cultural stigma surrounding mental health and seeking help for mental health concerns is also prevalent in Tunisia, which may contribute to reluctance to seek support. These findings highlight the urgent need for interventions to address the mental health needs of medical residents in Tunisia. Efforts to improve access to mental health services and reduce the stigma surrounding mental illness could help support the well-being and professional development of medical trainees in Tunisia (9).

Conclusion

The mental health of physicians in training is a growing concern, with studies showing that medical students and residents are at higher risk for mental health problems than the general population. The demanding nature of medical training, isolation, and stigma surrounding mental health problems are significant factors contributing to this issue. Implementing mental health support programs, promoting a culture of openness and support for mental health, addressing the work environment, and providing adequate supervision and support can help address this problem. By taking steps to improve the mental health of physicians in training, we can help ensure that they are better equipped to provide high-quality care to patients while also promoting their own well-being.

Mental Health of Physicians in Training

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Discrimination of Female Healthcare Workers during COVID-19: A way forward to defeat this double burden

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The famously known pandemic of this century which I would like to compare to the Black Death of Europe is the Coronavirus pandemic. Coronavirus created a global havoc during the year 2020-21, with its multiple waves and unsettling effects on humanity. It startled the medical community at large, as they were challenged to tackle the increasing number of deaths. Surely this pandemic has taught a few untold lessons.

Countries regardless of their economic status were affected by this equally. The countries that survived were those with strong healthcare systems, especially those that handed over the crisis to the technical experts rather than producing influences through political agendas. For example, the United Arab Emirates saw cooperation between all relevant stakeholders and communities which significantly decreased the number, while it was not the case globally. As of, 19 April 2023, there have been 763,740,140 confirmed cases of COVID-19, including 6,908,554 deaths, reported to WHO (1).

The pandemic had a debilitating impact on the social and economic life and health of the populations worldwide. Lockdowns restricted mobility, social contact, access to healthcare, and access to education due to closure of schools. The restrictions often resulted in the loss of jobs combined with existential fears and mental health problems.

Junior doctors worldwide were affected by the increasing demand of healthcare workers needed to care for patients. They had to do long hours of shifts without food or water in PEP kits to prevent the spread of the virus. A large proportion of doctors even contracted the disease and many of them even sacrificed their lives during serving the diseased. Worldwide, doctors and healthcare professionals were applauded for their work and commitment. They were termed as frontline workers and were also compared with soldiers at war.

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However, stakeholder and country-level commitments were limited towards health professionals as the policies introduced had minimal effectiveness (2). This is even worse when it comes to young female healthcare workers which includes junior doctors, nurses, and pharmacists. COVID-19 has disproportionately impacted young women professionals in healthcare, in academia in terms of research and publishing, also severely compromised community health workers.

On the personal front added to the professional obligations, unpaid care work increased among parenting couples working from home; mothers spent an average of 4 hours on childhood and 3 hours on homeschooling, whereas fathers spent an hour less, on average. The pandemic reinforced, therefore, re, e.g., unequal sharing of childcare (3).

With the UNGA “High-Level Meeting Pandemic Prevention, Preparedness and Response” (4). High-Level's imperative that all member states work on our demands and recommendations, the impacts of COVID-19 have had detrimental effects on the lives of Junior Doctors Worldwide specifically on female healthcare workers. Adequate compensation for their work must be duly given for their commitment and highest sense of duty. It should be of utmost importance to member states to protect the rights of these young workers in professional spaces as well as uplift their status in communities. Young female workers need a seat at the table, we have contributed to fighting the pandemic with utmost sincerity and our voices need to be heard in the highest decision-making spaces.

The negotiations at these bodies must be percolated down to the lowest level as we just don't need an immense amount of literature on paper but also on-ground implementation. For example, in India, many private medical colleges do not provide interns with a stipend which is mandatory as stated by the National Medical Commission and some of them must even pay for their PPE kits themselves even pay for their PPE kits themselves, this was a mentally challenging time for the young doctors and their families (5).

In my conclusion I would like to highlight the possible solutions for ensuring continued support to young female health-professionals. The guiding document which countries could use to help achieve objectives at workplaces is global health and care worker compact published by the World Health Organization (6). Achieving gender equity is not only the work of governments but all stakeholder including but not limited to NGOs, Local Communities, Universities, Academics and Private sector. We all need to work together to raise the political capital to address the demands of women and girls worldwide.

Discrimination of Female Healthcare Workers during COVID-19: A way forward to defeat this double burden

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Discrimination in the Workplace



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"It's about to rain," I think to myself.

"Nurse, can you please tell me where the surgical ward is?" my thoughts were interrupted, by a man who seemed to be in a rush. A sliver of annoyance streaks through me, before I regain my composure.

"He's in a hurry, maybe that's why he missed the white coat and stethoscope around my neck."

I provide him with the direction, and he rushes away.

"Or... maybe, he's just one of those people who have difficulty picturing a woman as a doctor".

I try to shrug off the thought as I walk into my next posting, however, my thoughts keep gnawing at me. It hits me how the entire episode was a déjà vu, and that during my five years at medical school, I have often been mistaken for a nurse.

The voices in my head get the better of me, "Is it that difficult to picture women as doctors?"

The storm outside mirrors the one in my heart. A storm that often gets the better of those of us who don't look like an "ideal doctor". A fight that is fought by all those that don't fit the bill of the "ideal doctor."

My experience described above is not an isolated experience of prejudice. And while experiences can be subjective, numbers don't lie.

Discrimination in the Workplace

Surveys mailed to 1,930 practicing physicians in Massachusetts were asked if they had encountered discrimination, how significant the discrimination was against a specific group, the frequency, and the type of discrimination. Factor analysis identified four types of discrimination: career advancement, punitive behaviors, practice barriers and hiring barriers. A staggering Sixty-three per cent of respondents had experienced some form of discrimination. Respondents were women (46%), racial/ethnic minorities (42%) and international medical graduates (IMGs) (40%) (1).

Similarly, on the other side of the globe, a 2019 study of 2,377,028 outpatient appointments at one major tertiary care hospital in Delhi revealed that women in India face “extensive gender discrimination” in access to healthcare, with the situation worse for younger and older female patients and those residing at increasing distances from the referral hospital. An estimated 402,722 female outpatient visits were missing, constituting a staggering 49% of the patient database. Missing female patients for each state measure of the extent of f gender discrimination was computed as the difference in the actual number of female patients who came from each state and the number of female patients that should have visited the tertiary hospital. A key implication of the study is that, relative to men, women in these states are deprived of quality tertiary healthcare (3).

From temperate to the tropics, landscapes and healthcare systems change, but the general theme of discrimination stays.

Akin to the practice of medicine to treat a disease, we must understand its etiology and pathogenesis. Social discrimination is no different, explicit recognition is an essential step in the elimination of disparities.

Like a kaleidoscope, there is a multifaceted aspect of structural discrimination amongst the medical community in India. Gender stereotypes aren't the only malady. Caste inequality, homophobia and insensitivity towards mental health issues are just a few pillars of this nefarious institution.

“Don't be too bold. You want to impress, not scare them.” A maxim that's drilled into the psyche of most female doctors in their professional lifespan. While the number of female residents in medical institutions has been steadily rising, the discrimination reminds us of a gender gap that might not be absolved by simply outnumbering our male counterparts.

Discrimination in the Workplace

The implicit insult in the notion that a woman wearing a white coat couldn't possibly have gone through the rigorous training required to become a doctor is offensive.

Gender pay gap exists in nearly every profession, but as per 2022 WHO reports, the gap in healthcare is 24% greater than any other occupation (5). Women account for 70% of the health workforce but they are mostly concentrated in nursing and midwifery professions, while far fewer are physicians. According to UN Women, globally, women are concentrated in service jobs (61.5%) and occupy fewer leadership roles as parliamentarians (23%) or as chief executive officers (4%) compared to men. A huge implication of this is that although women deliver the bulk of healthcare globally, men continue to lead it (6).

And while I talk of my experience and those who have come before me, women aren't the only sufferers of prejudice. Racial inequality in America has its parallel with caste inequality in India. According to the Thorat Committee Report (7), there is harrowing evidence of the systemic denigration that students of certain castes and tribes face in medical institutions. Resentment against doctors of certain castes stems from several factors such as a sense of caste prestige, caste endogamy, and belief in religious dogmas. The harassment occurs in many ways: soon after new students join the college, they are the target of systematic verbal and, sometimes, physical attacks by higher caste students.

They are frequently told that they are inferior and do not deserve to be in the institute. They are given very little space in sports and cultural activities. There is very little healthy social interaction among students of higher castes and these students. Moreover, the sensitive nature of this topic makes gathering evidence or conducting independent investigations extremely difficult, hence masking the clandestine.

These factors are entrenched in the minds from the very beginning, and continually reinforced over the generations.

In conclusion, structural discrimination has numerous forms and, despite being frequently unintentional, has the potential to limit the opportunities for those who are subjected to it. Asseveration of this ingrained history and ongoing harm is essential in order to constructively engage in changing and actively dismantling the status quo.

Compassion, welcoming mindsets, and unlearning societal conditioning is the pioneer towards defying the age-old iniquitous establishment of discrimination. A thorough introspection into our own ingrained prejudices and socio-cultural biases will serve as the seeds that will eventually grow into the idea of diversity, equity, and inclusion.

Discrimination in the Workplace

Everyone graduates with a degree of equal competence. Yet, women, racial minorities, members of the LGBTQ community, and those in the clutches of mental illness, have to fight more hurdles in order to be really seen as an analogue. To be ignorant is far more destructive than to do ill harm.

A world imbalanced, a troubled home, and a lot more broken bones.

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Importance of Learning from the Community during Medical School

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Medical schools are renowned as hubs of extensive knowledge, not only concerning the human body but also its intricate interactions with the surrounding environment. For healthcare professionals, it's imperative to grasp the challenges faced by the communities they serve, a pursuit that can commence within the early stages of medical education. The well-being of an individual is invariably intertwined with the overall health of the community. Here, 'health' encompasses physical, mental, social, emotional, and economic dimensions.

Engaging with the community allows students to immerse themselves in real-life predicaments and comprehend the lifestyles of patients grappling with chronic illnesses. This engagement aids in identifying requisite transformations for the enhancement of societal health. The experience cultivates students' powers of observation and critical analysis, thereby augmenting the learning journey. Diverse methods of medical education have shown promising outcomes, particularly in scenarios that necessitate astute observation and immediate response, prompting heightened alertness among students. In contrast to the typical 30-minute attention span during didactic lectures, community-based learning sustains interest over more extended periods.

Communication emerges as a quintessential skill for medical professionals. This process is pivotal in in-patient care, involving the extraction of information about their ailments and more—a task demanding doctors to display empathy. The mastery of communication improves through interactions with the community, where the art of understanding and addressing diverse concerns is refined. Given the distinctive ways, individual minds think, feel, and interpret, honing communication skills remains an ongoing endeavor, fostering psychological rapport between doctors and patients.

Physicians are recognized as societal leaders due to the wealth of knowledge accrued during their educational journey, their role in preserving lives, and the cultivated personalities they embody. Nurturing leadership qualities requires the transition from making rational decisions to habitual problem-solving. Such growth flourishes within the community, where students pinpoint health-related issues, proffer solutions, and thereby contribute to the broader well-being. This approach also hones the medical students' prowess in resolving complex challenges.

Importance of Learning from the Community during Medical School

Recent developments within the curriculum of medical education, particularly the Family Adoption Program initiated by the National Medical Commission in India, have introduced the concept of adopting families means to immerse students in community health dynamics. Under this initiative, students undertake the responsibility of overseeing the health and welfare of designated families, conducting periodic visits to ensure their well-being. This endeavor augments their capacity to exhibit empathy towards patients, nurturing an essential trait.

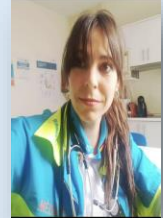
Learning from the community emerges as a profoundly enriching experience, shaping students into more adept, compassionate, understanding, and empathetic doctors

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Quality of Care VS Waiting Time: How Do Young Physicians in the Madrid Area Cope with It, and What Is Their Burnout Rate?

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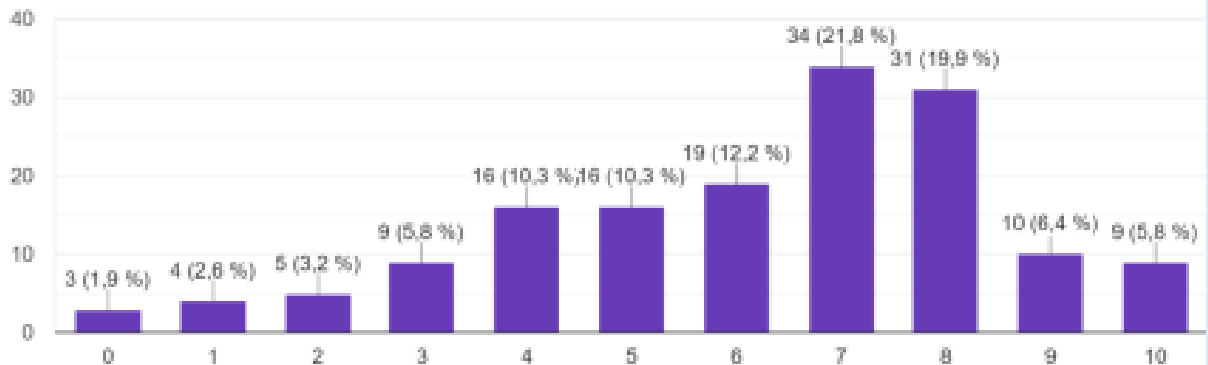
The situation of young doctors and residents in the health system of the Madrid Community is precarious due to the excessive workloads they have to bear, in one of the areas of Spain where the least is invested in healthcare (4). Several politicians have recently described the Spanish public health system as the "jewel in the crown" (1). However, the satisfaction of doctors, who have to deal with excellence in their work under conditions of overload and burnout, and of patients who observe every day how the waiting lists lengthen, do not reflect this situation.

To provide a more global opinion on how we deal with this situation of stress and overwork, we conducted a qualitative anonymous and voluntary survey (from April 14th to April 25th 2023) of young doctors and residents of all specialties in the Madrid area to find out their burnout status and how we can ethically cope with the overflow of our consulting and services.

Burnout is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. Is considered by the World Health Organization as an occupational disease that causes detriment to the physical and mental health of individuals.

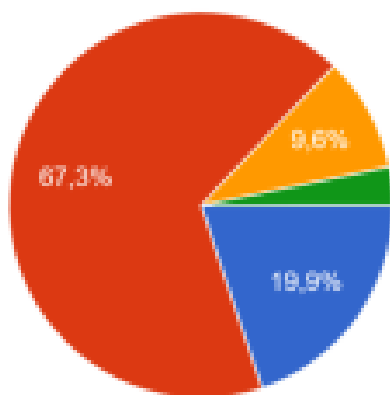
Of the 156 young physicians and residents surveyed, 21.8% reported a burnout score of 7 out of 10 points overall (on a subjective scale from 0 to 10, with 0 being "nothing" and 10 being "very intense"), which was the most prevalent mark. In addition, 53.9% reported having between 7 and 10 points of burnout. (FIGURE 1)

What degree of burnout do you think you suffer in GENERAL in your day-to-day life as a physician? (0 to 10, where 0 is “nothing” and 10 is “very intense”)



Regarding the question we asked them to find out how they cope with the great pressure of care: 67.3% said that they can spend as much time as they consider necessary to attend to their patients, as long the other patients are waiting. 19.9% said that they never have the time they need. Only 3.2% commented that they have plenty of time to see their patients, unhurried and unstressed. (FIGURE 2)

FIGURE 2: Do you consider that you can attend to your patients in the time they need?



156 answers

19, 9%: No, never

67,3%: Sometimes, as long as the other patients wait.

9,6%: Normally yes, with no need for other patients to wait.

3,2%: Yes, I have plenty of time to see my patients without rushing my patients without haste and stress

Finally, we asked them to fill in the Maslach Burnout Inventory (MBI) questionnaire, consisting of 22 items, which aims to measure the frequency and intensity with which burnout is suffered. It is composed of three subscales, the first two of which indicate greater attrition with higher scores. (3).

1. Emotional exhaustion is a chronic state of physical and emotional depletion that results from excessive work or personal demands or continuous stress. 28.9% of the respondents scored low on the scale, 16% scored medium and more than half, 55.1% scored high.
2. Depersonalization can consist of a detachment within the self, regarding one's mind or body, or being a detached observer of oneself. Again, most of the respondents scored high (67.9%), with low and medium scores being much lower (13.5% and 18.6% respectively).
3. Self-realization is a very broad concept described as psychological growth and maturation, the awakening and manifestation of latent potentialities of the human being. This scale works in reverse, with lower scores indicating higher attrition, and we found similar results: very few respondents showed a high score on this subscale (7%), with the majority showing a low score (71.2%), and therefore consistent with more burnout.

It should be noted that a high prevalence of burnout is considered to be present if at least one of the three subscales scores high, even if the other two score low. We rated high in the three of them.

To sum up, we are highly concerned about the results and perceptions of the burnout level in our community. The majority of respondents find themselves in the ethical dilemma of providing a quality medical service at the expense of leaving other patients waiting, which combined with their own social determinants and inverse care law could lead to serious time dependent problems, as seen in many studies (5).

We would like to continue our investigation to identify the possible causes and remedies of this discouraging situation, by comparing our study with new ones in other communities or even countries, and other years.

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Calidad de la atención médica VS tiempo de espera: ¿cómo lo afrontan los médicos jóvenes del área de Madrid y cuál es su tasa de burnout?

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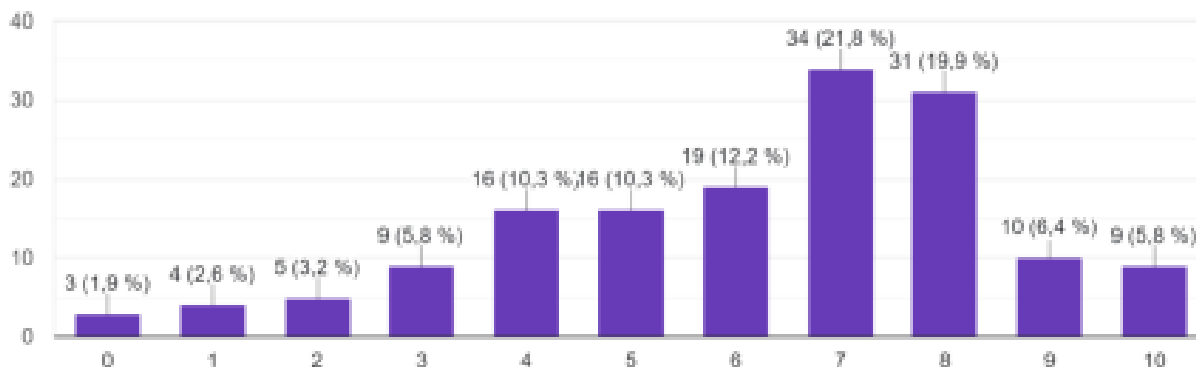
La situación de los médicos jóvenes y residentes en el sistema sanitario de la Comunidad Autónoma de Madrid es precaria debido a las excesivas cargas de trabajo que tienen que soportar, en una de las zonas de España donde menos se invierte en sanidad (4). Varios políticos han calificado recientemente a la sanidad pública española como la "joya de la corona" (1). Sin embargo, la satisfacción de los médicos, que tienen que lidiar con la excelencia en su trabajo en condiciones de sobrecarga y burnout, y de los pacientes, que observan cada día cómo se alargan las listas de espera, no reflejan esta situación.

Para dar una opinión más global sobre cómo afrontamos esta situación de estrés y sobrecarga de trabajo, realizamos una encuesta cualitativa anónima y voluntaria (del 14 al 25 de abril de 2023) a médicos jóvenes y residentes de todas las especialidades del área de Madrid para conocer su estado de burnout y cómo podemos afrontar éticamente el desbordamiento de nuestras consultas y servicios.

El burnout es un síndrome conceptualizado como el resultado de un estrés laboral crónico que no ha sido gestionado con éxito. Está considerado por la Organización Mundial de la Salud como una enfermedad profesional que causa detrimento en la salud física y mental de las personas. De los 156 médicos jóvenes y residentes encuestados, el 21,8% informó de una puntuación global de burnout de 7 sobre 10 puntos (en una escala subjetiva de 0 a 10, siendo 0 "nada" y 10 "muy intenso"), que fue la marca más prevalente. Además, el 53,9% declaró tener entre 7 y 10 puntos de burnout. (FIGURA 1)

¿Qué grado de burnout crees que sufres EN GENERAL en tu día a día como médico?

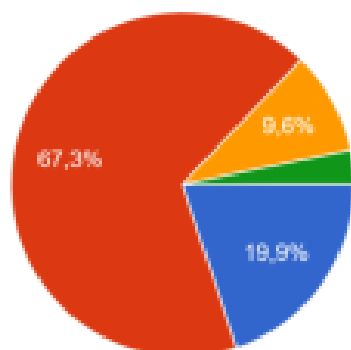
156 respuestas



En cuanto a la pregunta que les hicimos para saber cómo afrontan la gran presión asistencial: el 67,3% dijo que pueden dedicar el tiempo que consideren necesario a atender a sus pacientes, siempre que los demás pacientes estén esperando. El 19,9% afirma que nunca dispone del tiempo necesario. Sólo el 3,2% comentó que dispone de tiempo suficiente para atender a sus pacientes, sin prisas ni agobios. (FIGURA 2)

¿Consideras que puedes atender a tus pacientes en el tiempo que ellos precisan?

156 respuestas



- No, nunca
- A veces, siempre y cuando los demás pacientes esperen
- Normalmente sí, sin necesidad por lo general de que los demás pacientes tengan que esperar
- Sí, cuento con tiempo de sobra para ver a mis pacientes sin prisa y sin estrés

Por último, les pedimos que cumplimentaran el cuestionario "*Maslach Burnout Inventory*" (MBI), compuesto por 22 ítems, que pretende medir la frecuencia e intensidad con la que se sufre burnout. Se compone de tres subescalas, las dos primeras de las cuales indican mayor desgaste con puntuaciones más altas. (3).

1. El agotamiento emocional es un estado crónico de agotamiento físico y emocional que resulta de demandas laborales o personales excesivas o de un estrés continuo. El 28,9% de los encuestados puntuaron bajo en la escala, el 16% puntuaron medio y más de la mitad, el 55,1% puntuaron alto.
2. La despersonalización puede consistir en un desapego hacia uno mismo, hacia la propia mente o el propio cuerpo, o en ser un observador desapegado de uno mismo. De nuevo, la mayoría de los encuestados puntuaron alto (67,9%), siendo las puntuaciones bajo y medio mucho más bajas (13,5% y 18,6% respectivamente).
3. La autorrealización es un concepto muy amplio que se describe como el crecimiento y la maduración psicológicos, el despertar y la manifestación de las potencialidades latentes del ser humano. Esta escala funciona a la inversa, con puntuaciones más bajas que indican un mayor desgaste, y encontramos resultados similares: muy pocos encuestados mostraron una puntuación alta en esta subescala (7%), mostrando la mayoría una puntuación baja (71,2%), y por lo tanto consistente con un mayor burnout.

Hay que tener en cuenta que se considera que existe una alta prevalencia de burnout si al menos una de las tres subescalas puntúa alto, aunque las otras dos puntúen bajo. Nosotros puntuamos alto en las tres.

En resumen, estamos muy preocupados por los resultados y las percepciones del nivel de burnout en nuestra comunidad. La mayoría de los encuestados se encuentran en el dilema ético de prestar un servicio médico de calidad a costa de dejar esperando a otros pacientes, lo que unido a sus propios determinantes sociales y a la ley de atención inversa podría provocar graves problemas de dependencia del tiempo, como se ha visto en muchos estudios (5).

Nos gustaría continuar nuestra investigación para identificar las posibles causas y remedios de esta desalentadora situación, comparando nuestro estudio con otros nuevos realizados en otras comunidades o incluso países, y otros años.

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