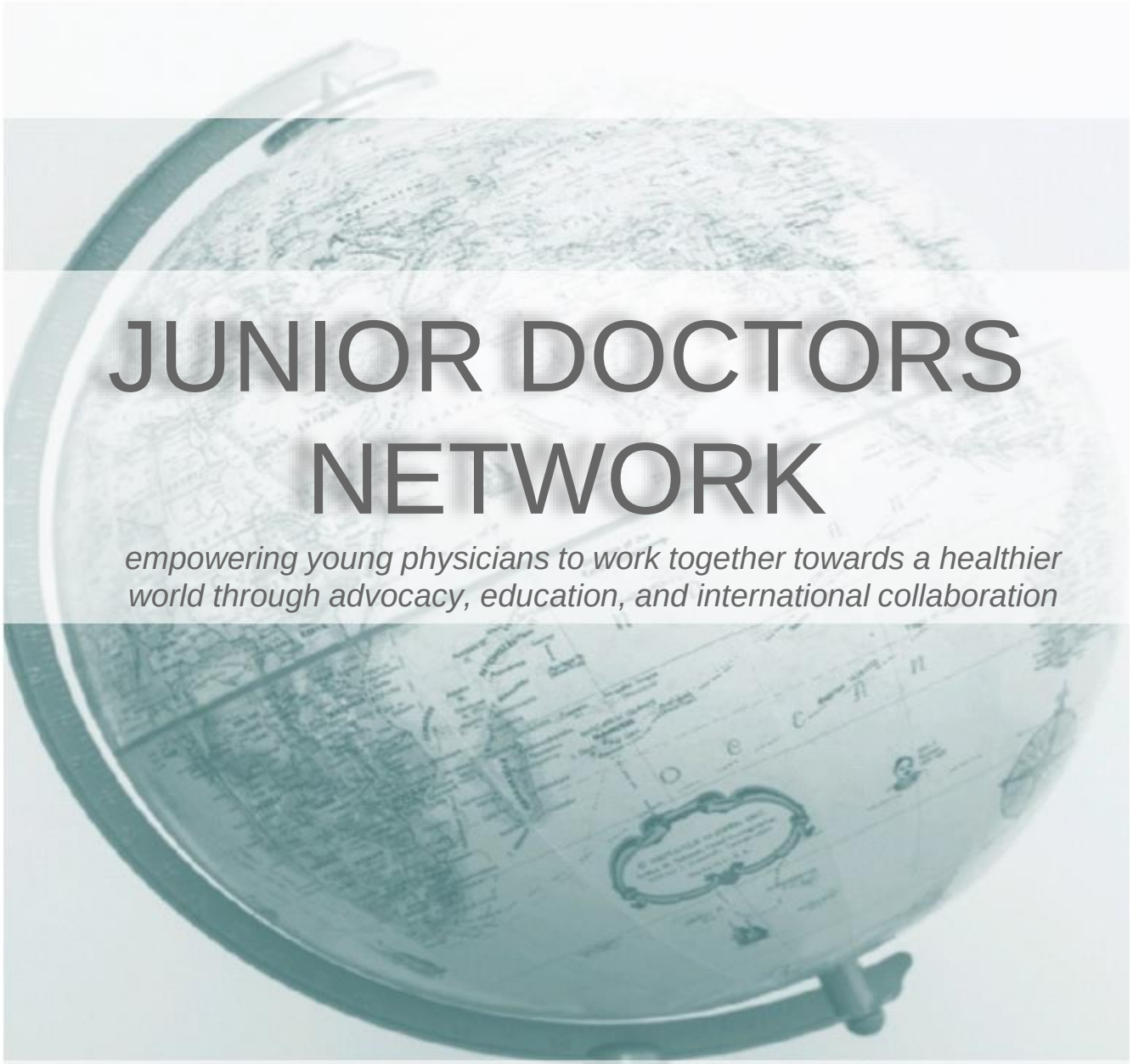
Junior Doctors Network Newsletter
Issue 17
March 2020



JUNIOR DOCTORS NETWORK

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

Published by the Junior Doctors Network of the World Medical Association

ISSN (print) 2415-1122
ISSN (online) 2312-220X

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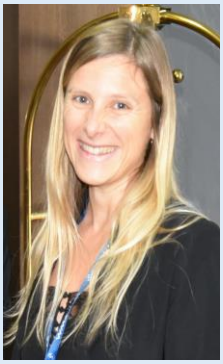

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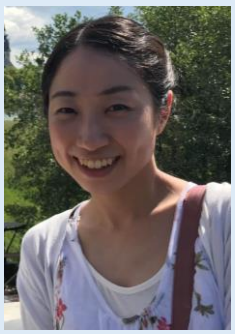

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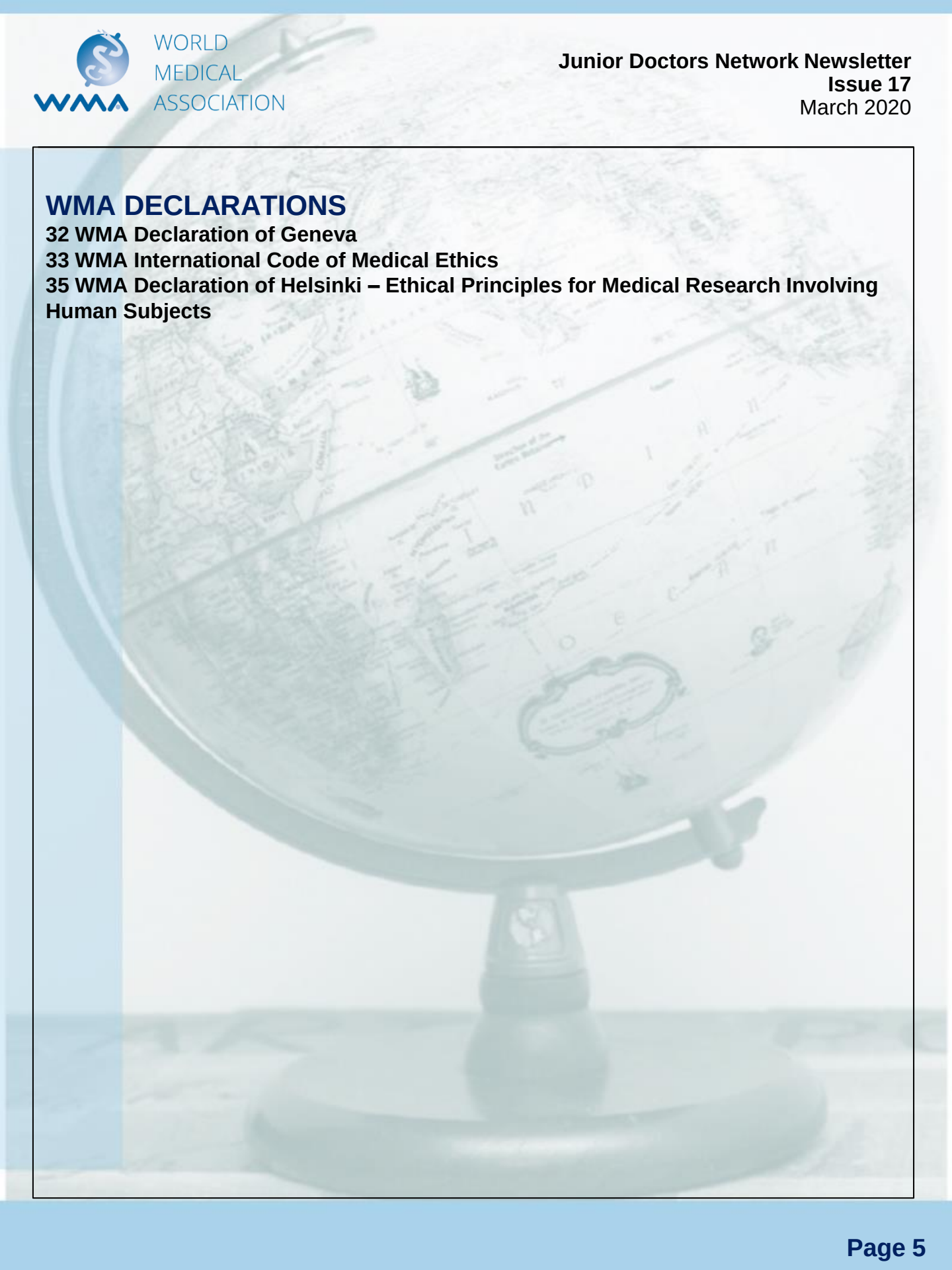

Words from the Chair

Audrey Fontaine, MD
Chair (2019−2020)
Junior Doctors Network
World Medical Association

Dear colleagues from around the world,

With great pleasure, our Junior Doctors Network (JDN) presents the first special edition issue of the *JDN Newsletter*, focusing on the fundamental topic of Medical Ethics. This robust collaboration of JDN officers promotes the JDN mission, *Empowering young physicians to work towards a healthier world through advocacy, education, and international collaboration.*

The JDN encourages junior doctors to be active participants in the global dialogue on medical ethics issues, including commentary on World Medical Association (WMA) policies, observance of the Declaration of Geneva, and attendance to conferences. In May 2019, JDN members participated in the WMA conference (Theme: *Physician 2030*), held in Tel Aviv, Israel. JDN members will also attend the upcoming United Nations Educational, Scientific and Cultural Organization (UNESCO) Bioethics conference (Theme: *Bioethics, Medical Ethics, and Health Law*), held in Porto, Portugal.

Over the last 10 years, the JDN has continued to empower junior doctors to participate in analyses and debates about global health topics, advocate for a healthier word, and build a strong network under the auspices of the WMA. Recently, the expansion of medical ethics activities included the development of a JDN working group and webinar series. This special edition issue provides an opportunity for junior doctors to share and gain insight on diverse medical ethics topics and current challenges in the workplace. We appreciate the continued support of the WMA leadership toward achieving these goals.

As the JDN celebrates the 10th anniversary in October 2020, a special celebration will recognize the continued engagement and dedication of our current and past JDN management teams and members. This historic moment shows that JDN-WMA remains committed to enhance junior doctors' engagement in global health leadership and advocate for a healthier, equal, and ethical world.

Enjoy your reading,
Audrey

Words from the Medical Ethics Working Group Chair

Lwando Maki, MD
Medical Ethics Officer (2019−2020)
Medical Ethics Working Group Chair (2019−2020)
Junior Doctors Network
World Medical Association

Dear Junior Doctors, Members of the WMA, and Colleagues in health,

On behalf of the Medical Ethics Alive Team (2019-2020) of the Medical Ethics Working Group, it is with great pleasure that I introduce to you all the inaugural Medical Ethics Special Edition of the *JDN Newsletter*.

The World Medical Association (WMA), in its medical ethics manual, recognises medical ethics as the branch of ethics that looks at moral issues in medical practice (1). It further describes medical ethics to have a strong relation with biomedical ethics. It clarifies that *medical ethics* primarily address issues that originate from the practice of medicine, whilst *biomedical ethics* focus on moral issues that arise from the developments in the biological sciences (1). Medical ethics form the foundation of the medical profession and comprise an integral part of global health. Over the decade, the issue has been brought into the limelight as a result of the intense participation of health professionals in discussions on diverse topics related to medical ethics. These include clinical competencies and responsibilities, human and animal research, patient confidentiality, and end-of-life care. As such, it behooves junior doctors to take the lead in championing the dissemination and awareness on this vital aspect of medical practice.

This Inaugural Medical Ethics Special Edition of the *JDN Newsletter* marks the first collaborative effort between the JDN Publications Team and the JDN Medical Ethics Working Group. The collaboration is a symbol of the leadership, synergy, and enthusiasm of junior doctors who share their experiences and expertise in topics that affect junior doctors.

The Medical Ethics Officer and the Medical Ethics Working Group will continue to work towards empowering young physicians with the knowledge and understanding of medical ethics as they continue to work towards a healthier world through advocacy, education, and international collaboration.

Stay connected, and let your voice reach the world!
Sincerely,
Maki

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Words from the Medical Ethics Work Group Project Lead

Aashish Kumar Singh, MBBS
Medical Ethics Working Group Project Lead (2019−2020)
Junior Doctors Network
World Medical Association

Dear colleagues,

Around the globe, Medical Ethics has been recognized as an essential topic at the core of medical education. From the first day of medical school, we are trained to treat our patients with dignity and respect, build positive rapport, and strengthen communication skills. These actions can foster patients' trust, albeit in today's world with increasing litigation and physical attacks on doctors. For this reason, the debate on medical ethics topics holds special significance.

As Junior Doctor Network (JDN) members, we are committed to highlighting the ethical issues faced by junior doctors around the globe. This Medical Ethics Special Edition of the *JDN Newsletter* provides a platform where our colleagues can share their experiences in the clinical and community workplace. In this issue, authors from different geographic regions have contributed scientific perspectives and reports, which highlight diverse medical ethics topics encountered in their country.

I would like to thank our Medical Ethics officer and Medical Ethics Working Group lead, Dr Lwando Maki, who presented the innovative idea to develop a Medical Ethics Special Edition for the *JDN Newsletter*. Likewise, I appreciate the leadership of the JDN Publications Director, Dr Helena Chapman, who led the editorial process with utmost sincerity and dedication for this unique collaboration. I recognize the editorial expertise of the JDN Publications Team, who supported this collaboration and editorial tasks to completion. Finally, I thank all authors who provided their scientific perspectives and reports on relevant medical ethics topics for this issue.

Stay connected, and let your word reach the world!

Sincerely,
Aashish

Words from the Publications Director

Helena Chapman, MD MPH PhD
Publications Director (2019−2020)
Junior Doctors Network
World Medical Association

Dear JDN colleagues,

On behalf of the Publications Team (2019-2020) of the Junior Doctors Network (JDN), we are honored to present and share the Medical Ethics Special Edition of the *JDN Newsletter* with junior doctors across the world.

This 17th issue of the *JDN Newsletter* marks the first collaborative effort between the JDN Publications Team and the JDN Medical Ethics Working Group to develop a joint Special Edition issue. This collaboration is a symbol of the leadership and enthusiasm of junior doctors who encourage their colleagues to share their experiences and reflections on topical issues in medical ethics that affect junior doctors in the clinical and community workplace.

The *JDN Newsletter* represents an international platform for the global community of junior doctors, which fosters collaborative learning about relevant topics in clinical care, research, and community practice. Through these insightful scientific reports and narratives, junior doctors showcase their passion for global health, enthusiasm to promote a positive learning environment, and desire to strengthen professional networks with World Medical Association (WMA) and JDN members.

We recognize the dedicated efforts of all leaders of the Medical Ethics Working Group and editors of the JDN Publications Team 2019-2020 as we completed the editorial tasks for this 17th issue. We also appreciate the continued support of the JDN management team and WMA leadership for this essential resource for junior doctors across the world. We hope that you enjoy learning about diverse topics in medical ethics in this 17th issue!

Together in health,
Helena

Worker Health: The Priority in the Workplace

Lwando Maki, MD
Medical Ethics Officer (2019−2020)
Medical Ethics Work Group Chair(2019−2020)
Junior Doctors Network
World Medical Association

This article looks at the hardships and unethical treatments shared by patients working in the construction industry. The article is meant to highlight the global workplace challenges faced by patients and workers.

As junior doctors treat the occupational injuries and diseases of worker patients, we should advocate for a healthy workplace for patients that can reduce risk of occupational disease or injury.

The construction industry plays an integral role in providing employment opportunities and contributing to the global economy. The contributions to the 2018 Gross Domestic Product (GDP) resulted in US$783 billion and US$7.94 billion in the United States and South Africa, respectively (1). The contributions to the 2017 GDP contribution was US$13.98 billion and US$21.75 billion in for South Africa and Nigeria, respectively (1). As the construction industry significantly contributes to the global economic growth and development of nations, workers' health and well-being should be prioritized.

Globally, the construction industry is one of the most hazardous and dangerous industries (2). It is associated with all categories of occupational hazards, such as psychological (e.g. occupational stress), physical (e.g. noise, temperatures, vibration, confined spaces), ergonomic (e.g. poor tool design, awkward postures), biological (e.g. mosquitoes, venomous animals), and chemical (e.g. solvents like lead-based paint, glues with isocyanates, silica, asbestosis, cement) (3). The relationship between silica exposure, tuberculosis, and occupational lung diseases has been established in the literature. For example, construction workers who are exposed to silica in dust or cement may be at increased risk of tuberculosis or occupational lung diseases. These occupational hazards can cause high morbidity and mortality rates, poor work performance, and increase projected expenditure of established projects (3).

The burden of occupational injuries and deaths in the employment sectors worldwide is among the highest in the construction industry, attributing to over 50% of all global occupational injuries and deaths (2−5). According to the International Labour Office (ILO), the construction industry was responsible for 60,000 annual fatal accidents – or one death every 10 minutes – and approximately 30% of construction workers suffered from back pain or other musculoskeletal disorders (4). In fact, in the United Kingdom (UK), the burden of occupational diseases and injuries in the construction industry was one of the highest in the UK employment sectors for 2017−2018. The construction industry was responsible for 38 fatalities and 82,000 work-related ill health cases, where 51,000 (62%) cases were musculoskeletal disorders and 14,000 (25%) cases were related to stress, depression or anxiety (5). Notably, there is a paucity of occupational health-related data of the construction industry from developing countries.

Evidence-based guidelines have demonstrated that early detection and management of adverse health effects – such as musculoskeletal disorders, mental health complaints, and skin disorders – can substantially decrease work-related injuries and illnesses.

Globally, literature has shown that Occupational Health Services (OHS) were established as a cost-effective measure to prevent workplace morbidity and mortality due to occupational diseases and injuries (4). OHS consist of 1) performing the Hazard Identification Risk Assessment (HIRA), 2) controlling the identified risk, and 3) monitoring that control of the risk has not been lost. The risks identified by the HIRA are controlled through risk reduction, risk removal, and risk avoidance. OHS also require the establishment of OHS committees and representatives that further improve efforts to maintain a healthy work environment and prevent negative impacts to health. With limited availability and accessibility of OHS in the construction industry, employers place workers' health and well-being at risk so that they can maximise company profits rather than expenditure on OHS services (2−5).

In conclusion, there is a need for improved availability of OHS in the global construction industry, especially in developing countries. All employers, government leaders, and worker unions must work together to address this ethical challenge in the construction industry. As junior doctors, we must continue to remain updated on the latest occupational health practices and legislation of our country. Moving forward, we can advocate for healthy workplaces for all patients that emphasize health and well-being and reduces risk of occupational disease or injury.

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Termination of Pregnancy and Conscientious Objection: A Confrontation between Science and Beliefs

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Termination of pregnancy is a surgical procedure that consists of the premature and provoked expulsion of the fetus from within the woman, either by internal or external physical or chemical means (1). This practice, despite being legislated and decriminalized in some countries, remains a taboo for society, even among health workers.

Conscientious objection is when an individual refuses to act under a legal mandate or obligation, based on beliefs, morality or religion. This action commonly arises in the health sector when health professionals are required to assist or perform a termination of pregnancy for medical purposes (1).

Global research shows that there is variation in the number doctors who practice the legal termination of pregnancy (1%) versus doctors who choose conscientious objection (>50%) (2). In Italy, where termination of pregnancy has been legal since 1978, more than 69% of doctors choose conscientious objection (2). High rates of doctors choosing conscientious objection has been attributed to doctors perceiving that medical ethics has been violated, especially disrespecting the life of the embryo, using the Hippocratic oath as justification. The alternative view of not choosing conscientious objection, however, focuses on the priority of the health and well-being of pregnant mothers.

As these two polar views bring an ethical challenge to the health sector, junior doctors should review the evidence-based literature on the burden, morbidity, and mortality related to the termination of pregnancy and reflect on their personal beliefs on the topic.

Their clinical decision can clarify offered medical services, minimize delay in service delivery, and confirm the presence of continuum of care. This article aims to provide an overview of this medical ethics debate and encourage junior doctors to understand their potential role if requested to assist in or perform a termination of pregnancy.

One common question remains: What happens when conscientious objection hinders women's sexual and reproductive rights?

Conscientious objection is a right for doctors, access to safe abortion is a right for women, and both actions should have federal regulation and oversight; so that doctors can object and women can have access to safe options. In some countries, the lack of regulation of such procedures can place women in danger, where they seek illegal *backstreet* procedures and face social stigma by their communities. It can also extend to doctors as conscientious objectors who do not have clear guidelines or responsibilities to refer patients who seek these procedures for medical purposes. Although individual autonomy must be respected, conscientious objection is an individual right, as it relates to doctors and other health care providers. However, the term conscientious objectors serves as direct evidence of moral convictions, which can lead to abuse and imposition of ideas based on beliefs rather than scientific evidence.

Although no reliable statistics on abortions exist, due to the illegal nature of the procedure in some countries, the World Health Organization (WHO) estimates that approximately 19–20 million unsafe abortions occur annually, with 97% in developing countries (3). In contrast, liberal laws for access to termination of pregnancy are found throughout Europe and Northern America as well as several countries in Asia (3). In Mexico, one research study reported that the legalization of termination of pregnancy in 2016 protected lives, where the case-fatality rate (per 100,000) declined from 54 deaths in 2000 to 33 deaths in 2016 (4). However, the legalization of termination of pregnancy does not guarantee the provision of health care services nor that doctors will not choose conscientious objection. Some South American countries have reported that a substantial number of countries have developed legislation on conscientious objection without ensuring access to alternative and safe options (5).

Over the past few decades, three key international activities have propelled the momentum and discussion about women's rights. In June 1993, the United Nations' World Conference on Human Rights was held in Vienna, Austria. Representatives of 171 states agreed to consider any violation of specific women's rights as a violation of human rights, recognized as the Vienna Declaration and Programme of Action (6). In September 1995, the Fourth World Conference on Women was held in Beijing, China. Representatives of 189 states participated and recognized reproductive rights and noted that women's human rights included their right to have control over issues related to their sexual and reproductive health, without being subject to coercion, discrimination or violence (7).

In October 2018, the 69th World Medical Association (WMA) General Assembly was held in Reykjavik, Iceland. WMA representatives adopted a statement on medically-indicated termination of pregnancy, proposing that physicians should continue to have a right to conscientious objection to perform a termination of pregnancy, while ensuring the continuity of medical care by qualified health professionals. Notably, it added that in all cases physicians must perform those procedures necessary to save a woman's life and to prevent serious injury to her health and well-being (8).

In Latin America, legislation on conscientious objection has resulted in unclear public health policies from a gender perspective, which have violated women's sexual and reproductive health rights. In turn, this has caused significant barriers to access to sexual education, safe termination of pregnancy, and other reproductive health care services. These regulations can be counterproductive for health professionals, where there may be misunderstanding or misconceptions of vulnerability related to women's rights.

Junior doctors should reflect upon the choice to conscientious object or not to conscientious object, which can enhance health systems and protect patients' health.

In conclusion, the decriminalization of abortion is a battle between ideologies and scientific evidence. By recognizing this global medical ethics debate and being aware that doctors may have different viewpoints, governments should recognize conscientious objection so that it respects human rights and advocates for enough non-objector doctors to provide necessary health services.

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Clinical Practice Guidelines: Exploring the "Knowledge–Action" Gap in the Dominican Republic

Helena Chapman, MD MPH PhD
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Junior Doctors Network
World Medical Association

Clinical practice guidelines are evidence-based recommendations that have been developed by expert medical panels to standardize infectious and chronic disease management and support clinical decision-making (1). These guidelines aim to optimize patient care and minimize morbidity and mortality rates across the patient population. The importance of these scientific recommendations was noted by the Institute of Medicine (now, the National Academies of Medicine) in the 1990s, which led to the widespread development, dissemination, and use of clinical practice guidelines for patient-centered care across the world (1). Over time, sophisticated appraisal techniques were implemented to strengthen the systematic review of evidence-based research, evaluate the risks and benefits of alternative care options, and enhance the trustworthiness of clinical practice guidelines.

Scientific research aims to advance the current knowledge base by exploring complex clinical questions, examining associations between epidemiologic variables, and assessing the effectiveness of current standard practices.

As new scientific evidence emerges on clinical topics, an exhaustive systematic review of the literature by selected advisory boards of federal agencies and professional medical associations is indispensable to maintain up-to-date clinical practice guidelines. Some examples of such agencies and associations are the Centers for Disease Control and Prevention, American Academy of Family Physicians, European Society of Cardiology, and Infectious Diseases Society of America. As medical curricula have adopted problem-based learning approaches to stress the practice of evidence-based medicine, physicians are responsible to remain up-to-date and adhere to clinical practice guidelines as essential elements of clinical practice.

Clinicians, although with genuine intentions to follow medical ethics principles – autonomy, beneficence, justice, and non-maleficence – may be unable to apply the respective clinical practice guidelines in their workplace.

This "knowledge−action" gap, defined as the inability to consistently apply knowledge to practice, may reflect knowledge barriers of the individual practitioner or health system level (2).

For example, if selected pharmaceutical agents, laboratory diagnostics or other technological advancements are in limited quantity or inaccessible – due to inadequate funding or resources within the institution – then the prompt and appropriate delivery of health care services to patients and resulting clinical outcomes may be significantly impacted (3). These limitations can conflict with physicians' education and training, adding to their frustration and inability to provide optimal patient care.

Example: Tuberculosis Control in the Dominican Republic
Tuberculosis (TB), transmitted through aerosol droplets infected with *Mycobacterium tuberculosis*, remains a significant global health burden, causing 10 million new infections and 1.5 million deaths in 2018. In the Dominican Republic (DR), a country of approximately 11 million residents, the incidence of TB per 100,000 persons has continued to decline over the past three decades, from 91 cases in 1990 to 60 cases in 2015 to 45 cases in 2018 (4,5).

This decline is attributed to the DR Ministry of Health leadership and support of the National Tuberculosis Control Program, including gratuitous TB treatment through directly observed treatment short-course (DOTS), capacity building for health professionals, educational outreach at primary care centers (Unidades de Atención Primaria, UNAP), and hospital-level patient-centered care. In efforts to reduce risk of *M. tuberculosis* transmission and protect patient and employee health, international clinical practice guidelines for TB diagnosis, management, and prevention are widely disseminated across DR health institutions.

Recently, the DR Ministry of Health investigated the high-risk occupations for *M. tuberculosis* transmission in tertiary-level health institutions between 2005 and 2012. Physicians and nurses were the top occupations of the 111 total health care workers who developed TB disease (5). To explore the "knowledge−action" gap, researchers designed a

qualitative study to explore clinicians' decision-making processes as they were able to apply TB infection control practices in the workplace. Through interviews with TB experts and focus group discussions with physicians and nurses in primary care and emergency medicine, clinicians expressed *feeling powerless* in clinical practice. Although they were trained in clinical knowledge of TB, they expressed intrinsic (e.g. general sense of invincibility) and extrinsic (e.g. no isolation ward, limited supply of protective equipment) barriers to adhering to recommended TB infection control practices (5).

This exact scenario, which may be experienced by clinicians across the globe, offers a call to action for medical ethics on identifying where interventions can empower clinicians in their clinical practice and minimize this "knowledge−action" gap.

Some interventions may include strengthening capacity-building activities for all health care workers, requesting increased national health budgets to allocate for essential medical equipment and supplies, and modifying physical infrastructure to provide airborne infection isolation (e.g. negative pressure) rooms in health institutions.

Evidence-based clinical guidelines represent high-quality scientific tools to prioritize patient-centered care during ambulatory or hospitalized settings. Junior doctors must remain up-to-date on clinical recommendations and be aware of the "knowledge−action" gap in clinical practice. Their global leadership in organizations, conferences, and small work groups can advocate for the proper application of clinical practice guidelines to strengthen patient care outcomes.

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Patient-Physician Relationships Need Doctors' Self-regulation

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Establishing a close, positive rapport between a physician and a patient has always been an important element of the physician-patient relationship. Successful establishment of rapport, well supported by evidence-based research, can lead to high levels of compliance and successful treatment outcomes (1).

The medical profession must strive to form a trustworthy physician-patient relationship, preferably based on strong mutual respect.

In the current era, cataclysmic changes have been made to the physician-patient relationship. Although significant strides in technology, such as the internet, allow patients to easily access information that they think that they need, whether that information is indeed accurate and necessary to patients comes into question. Physicians sometimes feel that patients who obtain inappropriate amounts of health information can minimize the authority entrusted to physicians (2). As such, they may consider themselves as customers, rather than patients, who seek the highest cost-effectiveness. Physicians' traditional and authoritative voice can no longer be sustained in this kind of environment. Although this situation may differ among countries, the status quo of the physician-patient relationship in the Republic of Korea has taken a more undesirable turn, notably with the recent attempt to revise the Medical Law in 2019.

In May of 2019, the ruling Democratic Party of Korea submitted a bill that proposed the mandatory installation of closed-circuit television cameras (CCTV) in hospital operating rooms after strings of preventable medical malpractice (3). Recent medical malpractice incidents included proxy surgeries by unlicensed medical equipment salespeople, completion of inappropriate medical procedures among medical personnel, and reported

sexual harassment of patients under anesthesia. The passage of this bill is currently pending for two reasons. First, the financial and administrative challenges hinder the real-world application. Second, more crucially, a conflicting view exists between medical professionals and the general public on this issue.

In 2019, the Korean Intern Resident Association (KIRA) conducted a survey to examine the perceptions related to installing CCTVs in operating rooms of 866 resident physicians at 90 training hospitals. A total of 81.3% of respondents believed that installing CCTVs in operating rooms was an unnecessary measure, and 15% replied that this installation should be an optional, not mandatory, measure. The main reasons for opposing CCTVs included the possibility of violating patients' privacy and doctors' autonomy **(Figure 1)**.

However, the general public favors the passage of this submitted bill. The Gyeonggi provincial government and lawmakers are actively taking action to answer public demands for CCTV installation. They claim that CCTVs can help patients and their families collect data and identify causal relationships if a medical dispute occurs. Hence, they believe that the CCTV installations can close the information gap between physicians and patients, restoring patients' confidence in physicians over time.

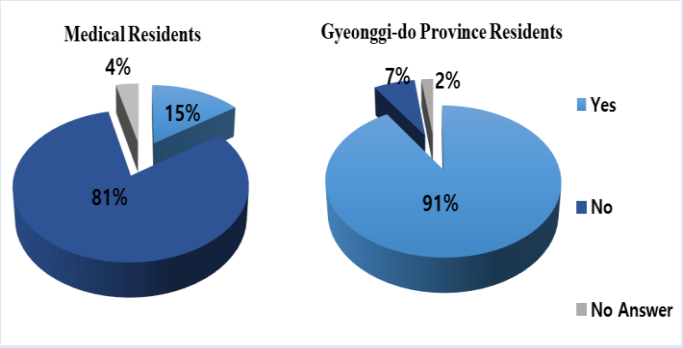

Figure 1. KIRA survey of 866 medical residents (left) and 1,000 Gyeonggi-do Province residents (right) on perceptions regarding CCTV installation in operation rooms. Credit: KIRA/Gyeonggi-do province, 2019.

Despite this ongoing dispute, pilot practices of CCTV monitoring systems are already in operation by the Gyeonggi provincial government (4). Six provincial hospitals have started to record surgeries with enthusiastic community support. In 2019, the Gyeonggi province conducted a survey to explore community support of CCTV monitoring systems in operating rooms of 1,000 community residents. A total of 91% of local residents supported the monitoring system in operating rooms **(Figure 1)**. Under CCTV installation, the public's main rationale is rather simple: patients want protection when related to medical disputes. In other words, the commotion surrounding CCTVs is only a facade of the crumbling physician-patient relationship in the Republic of Korea.

We believe that this emphasizes the importance of physician's self-regulation. No matter how many medical cases result without errors, only a handful of cases with poor outcomes are sensationalized by the media and promote distrust and misunderstanding by the general public **(Figure 2)**. Therefore, physicians should express their efforts to maintain high moral standards through self-regulation. The collective behavior of this self-regulation leads physicians to demand the participation of high-level bodies and organizations, such as medical ethics committees.

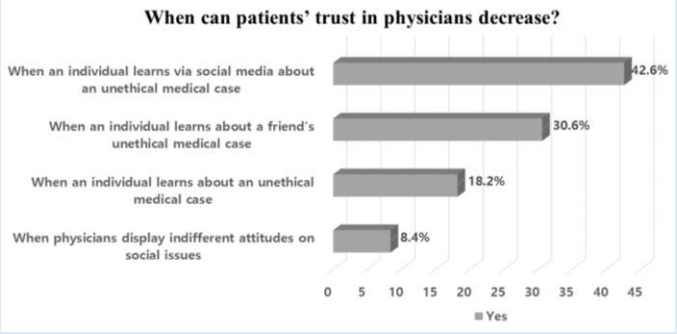

Figure 2. KMA survey of 500 patients on perceptions regarding their trust in physicians.
Credit: KMA Research Institute for Healthcare Policy, 2011.

The Central Ethics Committee of the Korean Medical Association (KMA) is responsible for executing effective discipline for impaired members and providing prompt ethical guidelines (5). The weak binding power, however, challenges a shared consensus about whether the Committee functions properly and gains patients' trust. Although the Committee acts as the initial gateway to identify individuals who tarnish the medical profession through misconduct, it does not possess any means to inflict actual penalties. Frequently, the Committee submits formal reports to the Ministry of Health and must wait for the appropriate administrative measures within an extended time limit.

The Central Ethics Committee's limitations to secure physician-patient trust have led to the development of additional Committees that are more focused on investigating and penalizing impaired physicians. These changes are slow but demonstrate forward movement.

Medical interns and residents stand at the forefront of patient care, making their role pivotal in rebuilding the broken trust between patients and physicians.

Over the next few years, KIRA envisions the development of their own Ethical Committee. Although the gap in knowledge and practice of medical ethics has hindered this plan, KIRA's recent interest in Junior Doctors Network (JDN) Medical Ethics Committee (MEC) will offer a lively discussion of physicians' self-regulation and surveillance among junior doctors.

These efforts will provide insight to future steps that will progress the advancement of the field of medical ethics.

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Support Us: A Plea from Young Nepali Doctors

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There are certain memories, moments, and experiences that guide our personal development and inspire us to act in new ways.

I was born and raised in a sub-metropolitan city located in the far eastern region of Nepal. This city is recognized for the enormous British establishment (*Ghopa Camp*) and a major tertiary-level health center for eastern Nepal. Within this establishment, I completed my high school education in an international branch of a highly reputed private school.

My memories of observing medical students in their bright white coats are vivid. It would be the most awaited moment of my day, watching them from the window of my school bus. I wondered how prestigious their lives would be, feeling fulfilled through their clinical practice. I have always aspired to have the same feeling of gratification and happiness and wondered if I would ever be able to experience it.

As I entered medical school, I quickly realized that the reality was far different from what I had imagined. The influence of highly powerful people in the medical sector − commonly referred to as *Medical Mafias* − was apparent early during my medical journey. The bribe charged under the table, their influence on education, and the future towards becoming a doctor were clearly apparent. Limitations included a lack of teaching faculty, inadequate infrastructure, and substandard educational curriculum. For decades, the educational system had been executed with every raised voice silenced by the influence of money and power.

After completing medical school, my belief that the phase of domination and monopoly would end was incorrect. In the private sector, financial gain from the patient population is typically prioritized over the concern for patient betterment or safety. Since junior doctors must complete a one-year post-graduate clinical clerkship before applying to medical residency, job opportunities were only limited to small private hospitals. However, without a

powerful influence – whether political or hospital administration contacts – new medical graduates were rarely able to enter the reputed private sector or government-run hospitals. They often acquired employment in the poorly-run hospitals of the private sector.

Junior doctors also received an unreasonable financial reimbursement and faced serious security issues in the workplace (1). Challenges included caring for family needs at home in addition to their own safety concerns from angry mobs at the hospital. At the same time, they may experience significant stress as the media portrays the false image of doctors as unprofessional and solely motivated by financial gain. Doctors have pleaded for help from institutional and government authorities, but they have received no assistance to date.

Over the past five years, doctors have fought and protested for reasonable rights, but there has been minimal support from the government, senior health authorities, and general population. Considered a soft target, the media views this resistance for rights and justice as a nuisance and negligence towards this noble profession. However, what is truly heart-breaking is the fact that the senior health authorities, recognized as the pioneers of medicine in Nepal, have ignored this suffering and consequences of the corrupt system. For this reason, as this article can only touch upon the tip of the iceberg, a subsequent article could further elaborate on the specific details of this situation.

A few questions remain: Is this the life that junior doctors understand and accept? Is it wrong to fight for our rights and pride? Are we the true villains of this society portrayed by authorities? Do we regret our decision to become doctors?

Although these questions require in-depth reflections, junior doctors continue to inspire colleagues, exhibiting passion and dedication for the medical profession albeit significant hardships.

As they are passionate about clinical care, they observe the value and personal satisfaction of their doctor-patient interactions which cannot be measured with monetary compensation. This may serve as an example of why doctors serve humanity and encourage future generations to follow a career path that results in self-satisfaction.

In the end, junior doctors have experienced this challenging journey, investing their time with the promise of devoting their future career to medicine. They only request a workplace environment where they can learn and practice medicine without fear, receive appreciation for their efforts, and attain financial stability. Doctors need their patients to trust them, their mentoring physicians to provide guidance, and the government to support health care service delivery.

These action steps may take years to accomplish, but junior doctors can start taking the first steps together as a family unit, supporting each step of this journey.

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Physician Burnout

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Historically, doctors have been viewed as a respected working class in society. However, people may disregard the fact that this respect comes with an enormous cost, which can drain physical health and mental peace. Society may admire the white ward coats and stare wistfully at the neatly tucked-in shirts with ironed trousers and shining shoes. Although they may wish that they were part of this hallowed profession, they may overlook the sacrifices of dedicated patient care, including extended work hours, increased stress, and sleepless nights. With hectic clinical schedules, doctors may frequently return home at late hours and miss family events, such as family birthday celebrations and wedding anniversaries. Although doctors have adapted to this work routine, they may reflect on how society prioritizes patients' health over doctors' well-being.

Doctors often work long clinical shifts, which sometimes extend to 36 hours without proper rest. This can be described as burnout, where physical and emotional fatigue or exhaustion is accompanied by feelings of limited personal achievements and depersonalization (1). As global medical councils recognize this burden, health leaders hold open discussions where they discuss challenges and advocate for improved working conditions for all health care workers. Although an essential call to action, these described recommendations have been inconsistently integrated into clinical practice.

These fora provide opportunities to voice recommendations that can be adopted into national guidelines and policies.

Recent research studies have demonstrated the reality of burnout among doctors across the globe. In 2019, the British Medical Association conducted a survey among doctors, reporting the risk of burnout to be as high as 80% (1). In 2018, the Physician Foundation, a national non-governmental organization in the United States, administered a survey among doctors, showing that 78% expressed feelings of burnout (2). In 2018, a study conducted in India concluded that the rate of depression among resident doctors was 28%, which was higher than the prevalence in the general population (3).

These global statistics are alarming as burnout can lead to depression, anxiety, and in some cases, suicide.

In 2019, doctors in India launched a public awareness campaign titled, *I am Overworked*, to raise awareness about the unregulated duty hours and increasing rates of depression and suicide among doctors. As part of the campaign, doctors wore the *I am Overworked* badge during their clinical responsibilities, hoping that their voices would reach the Minister of Health (4).

Numerous research studies have concluded that an overworked mind can result in unintentional clinical errors, suggesting that doctors' actions directly affect patients' health outcomes (5). Moving forward, global medical regulatory professional councils and governments should continue to hold open fora with stakeholders on emerging issues like burnout, organize meetings between physicians and other health care providers, and adopt appropriate and timely interventions. For example, work hours can be regulated and not exceed a total of 12 hours in one single clinical shift, in order to allow sufficient time to rest.

Moving forward, global medical regulatory professional councils and governments must understand that a healthy doctor is key to a healthier and more productive society.

In conclusion, it is evident that human beings are happier with a healthy body and a peaceful mind. As B.K.S. Iyengar, one of the foremost yoga teachers in the world, stated, *When your body, mind, and soul are harmonious, you will bring health and harmony to the world*. In efforts to optimize doctors' health and well-being, the medical community should stress the need to address burnout among doctors and mitigate risk though prompt and appropriate interventions.

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Medical Ethics Challenges Related to Mental Health in Europe: Views from a French Junior Doctor

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Mental health is one of the fields that has continuously evolved over the last century. Long neglected, it has emerged as one of the main health, societal, and economic challenges. Reports by the World Health Organization (WHO) (2001) and the World Bank (2002) have placed mental health as one of the pillars that must be targeted to improve the most disadvantaged economies (1). Mental health disorders are one of the main causes of declining human productivity. Its direct and indirect financial costs are estimated at more than 450 billion Euros per year in the European Union (2).

Historically, little was known about health promotion, prevention, and treatment of psychiatric diseases. For example, asylum psychiatry was the traditional approach to the treatment of psychiatric diseases in the 19th century. Following scientific, technological, societal, ethical, and demographic advances, a paradigm change has occurred in the delivery of psychiatric health care.

Today, person-centred care has been integrated into health care service delivery, recognised as more efficient and ethical practices. However, services and practices do not always reflect this knowledge.

During psychiatric treatment, numerous cases of human rights violations have been reported to the European Court of Human Rights, mainly in large mental health institutions and related to coercion (3). In response, over the past few years, patients' representative groups, physicians, and political figures have started public discussions on the use of coercion in psychiatric treatment. How can we best address decision-making in medical

cases when the distorted perception of reality and lack of insight are primary symptoms? Why would we force patients to be treated against their will when they are suffering from a psychiatric illness, but not if they were suffering from cancer? Is this an ethical approach? Are we respecting human rights and dignity while administrating involuntary treatments, such as prescribing pills, giving injections or placing patients in isolation or with restraints?

On June 26, 2019, the European Parliamentary Assembly adopted a resolution to end coercion in mental health treatment and promote a human rights-based approach. In reality, the slow implementation of these measures and limited community-based mental health services across European countries encourages reorganization of health systems. For example, France has initiated a major reform on mental health service delivery since 2018. The Ministry of Health issued a framework for action in order to improve prevention, health promotion, and care of persons living with mental disorders. As this framework highlighted the importance of community-based approaches, a working group was developed to strengthen the health finance system.

Nevertheless, psychiatrists continue to be challenged in providing person-centred care, and ethical questions remain. Last year, the French government issued a new bylaw regarding the management of data collected on persons with involuntary hospitalization. This bylaw allows the government to keep patients' personal records for three years. Many French psychiatrists have vocally disagreed with this bylaw as unethical and stigmatising for patients, taking it to the European Court of Justice.

Stigma and prejudice against mentally ill persons are additional ethical challenges that can lead to reduced access to health care services and higher mortality rates.

Psychiatric patients frequently face non-psychiatric illnesses that can be misattributed to mental illness and lead to delayed treatments. It has been shown that health professionals can demonstrate unconscious biases, hidden beliefs, and behaviours that may contribute to stigmatizing experiences among patients (4). It can also serve as a barrier to recovery for people seeking help for mental illnesses (5). Thus, health professions education should focus on raising awareness and minimizing associated stigma through appropriate didactic coursework and clinical rotations.

Ethical practices in the field of mental health require awareness, sensitivity, and empathy for patients as individuals, while respecting their cultural values and beliefs.

To conclude, mental health is one of the health fields where ethics, culture, and social beliefs are interwoven and have a crucial impact on the delivery of health care services. The nature of psychiatric illnesses raises challenging and fascinating questions about human rights, patients' autonomy, and health systems' organizations. It is therefore essential to create a fit-for-purpose workforce who would be fully aware of the emerging challenges that mental health faces nowadays.

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WMA Declaration of Geneva

WORLD MEDICAL ASSOCIATION

WMA DECLARATION OF GENEVA

Adopted by the 2nd General Assembly of the World Medical Association, Geneva, Switzerland, September 1948
and amended by the 22nd World Medical Assembly, Sydney, Australia, August 1968
and the 35th World Medical Assembly, Venice, Italy, October 1983
and the 46th WMA General Assembly, Stockholm, Sweden, September 1994
and editorially revised by the 170th WMA Council Session, Divonne-les-Bains, France, May 2005
and the 173rd WMA Council Session, Divonne-les-Bains, France, May 2006
and amended by the 68th WMA General Assembly, Chicago, United States, October 2017

The Physician's Pledge

AS A MEMBER OF THE MEDICAL PROFESSION:

I SOLEMNLY PLEDGE to dedicate my life to the service of humanity;

THE HEALTH AND WELL-BEING OF MY PATIENT will be my first consideration;

I WILL RESPECT the autonomy and dignity of my patient;

I WILL MAINTAIN the utmost respect for human life;

I WILL NOT PERMIT considerations of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient;

I WILL RESPECT the secrets that are confided in me, even after the patient has died;

I WILL PRACTISE my profession with conscience and dignity and in accordance with good medical practice;

I WILL FOSTER the honour and noble traditions of the medical profession;

I WILL GIVE to my teachers, colleagues, and students the respect and gratitude that is their due;

I WILL SHARE my medical knowledge for the benefit of the patient and the advancement of healthcare;

I WILL ATTEND TO my own health, well-being, and abilities in order to provide care of the highest standard;

I WILL NOT USE my medical knowledge to violate human rights and civil liberties, even under threat;

I MAKE THESE PROMISES solemnly, freely, and upon my honour.

WMA International Code of Medical Ethics

WORLD MEDICAL ASSOCIATION

WMA INTERNATIONAL CODE OF MEDICAL ETHICS

Adopted by the 3rd General Assembly of the World Medical Association, London, England, October 1949
and amended by the 22nd World Medical Assembly, Sydney, Australia, August 1968
and the 35th World Medical Assembly, Venice, Italy, October 1983
and the 57th WMA General Assembly, Pilanesberg, South Africa, October 2006

DUTIES OF PHYSICIANS IN GENERAL

A PHYSICIAN SHALL	always exercise his/her independent professional judgment and maintain the highest standards of professional conduct.
A PHYSICIAN SHALL	respect a competent patient's right to accept or refuse treatment.
A PHYSICIAN SHALL	not allow his/her judgment to be influenced by personal profit or unfair discrimination.
A PHYSICIAN SHALL	be dedicated to providing competent medical service in full professional and moral independence, with compassion and respect for human dignity.
A PHYSICIAN SHALL	deal honestly with patients and colleagues, and report to the appropriate authorities those physicians who practice unethically or incompetently or who engage in fraud or deception.
A PHYSICIAN SHALL	not receive any financial benefits or other incentives solely for referring patients or prescribing specific products.
A PHYSICIAN SHALL	respect the rights and preferences of patients, colleagues, and other health professionals.
A PHYSICIAN SHALL	recognize his/her important role in educating the public but should use due caution in divulging discoveries or new techniques or treatment through non-professional channels.
A PHYSICIAN SHALL	certify only that which he/she has personally verified.
A PHYSICIAN SHALL	strive to use health care resources in the best way to benefit patients and their community.
A PHYSICIAN SHALL	seek appropriate care and attention if he/she suffers from mental or physical illness.
A PHYSICIAN SHALL	respect the local and national codes of ethics.

DUTIES OF PHYSICIANS TO PATIENTS

A PHYSICIAN SHALL	always bear in mind the obligation to respect human life.
A PHYSICIAN SHALL	act in the patient's best interest when providing medical care.

WMA International Code of Medical Ethics

A PHYSICIAN SHALL	owe his/her patients complete loyalty and all the scientific resources available to him/her. Whenever an examination or treatment is beyond the physician's capacity, he/she should consult with or refer to another physician who has the necessary ability.
A PHYSICIAN SHALL	respect a patient's right to confidentiality. It is ethical to disclose confidential information when the patient consents to it or when there is a real and imminent threat of harm to the patient or to others and this threat can be only removed by a breach of confidentiality.
A PHYSICIAN SHALL	give emergency care as a humanitarian duty unless he/she is assured that others are willing and able to give such care.
A PHYSICIAN SHALL	in situations when he/she is acting for a third party, ensure that the patient has full knowledge of that situation.
A PHYSICIAN SHALL	not enter into a sexual relationship with his/her current patient or into any other abusive or exploitative relationship.

DUTIES OF PHYSICIANS TO COLLEAGUES

A PHYSICIAN SHALL	behave towards colleagues as he/she would have them behave towards him/her.
A PHYSICIAN SHALL	NOT undermine the patient-physician relationship of colleagues in order to attract patients.
A PHYSICIAN SHALL	when medically necessary, communicate with colleagues who are involved in the care of the same patient. This communication should respect patient confidentiality and be confined to necessary information.

WMA Declaration of Helsinki

WORLD MEDICAL ASSOCIATION

WMA DECLARATION OF HELSINKI – ETHICAL PRINCIPLES FOR MEDICAL RESEARCH INVOLVING HUMAN SUBJECTS

Adopted by the 18th WMA General Assembly, Helsinki, Finland, June 1964
and amended by the:
29th WMA General Assembly, Tokyo, Japan, October 1975
35th WMA General Assembly, Venice, Italy, October 1983
41st WMA General Assembly, Hong Kong, September 1989
48th WMA General Assembly, Somerset West, Republic of South Africa, October 1996
52nd WMA General Assembly, Edinburgh, Scotland, October 2000
53rd WMA General Assembly, Washington DC, USA, October 2002 (Note of Clarification added)
55th WMA General Assembly, Tokyo, Japan, October 2004 (Note of Clarification added)
59th WMA General Assembly, Seoul, Republic of Korea, October 2008
64th WMA General Assembly, Fortaleza, Brazil, October 2013

Preamble

1. The World Medical Association (WMA) has developed the Declaration of Helsinki as a statement of ethical principles for medical research involving human subjects, including research on identifiable human material and data.

The Declaration is intended to be read as a whole and each of its constituent paragraphs should be applied with consideration of all other relevant paragraphs.

2. Consistent with the mandate of the WMA, the Declaration is addressed primarily to physicians. The WMA encourages others who are involved in medical research involving human subjects to adopt these principles.

General Principles

3. The Declaration of Geneva of the WMA binds the physician with the words, "The health of my patient will be my first consideration," and the International Code of Medical Ethics declares that, "A physician shall act in the patient's best interest when providing medical care."

4. It is the duty of the physician to promote and safeguard the health, well-being and rights of patients, including those who are involved in medical research. The physician's knowledge and conscience are dedicated to the fulfilment of this duty.

5. Medical progress is based on research that ultimately must include studies involving human subjects.

6. The primary purpose of medical research involving human subjects is to understand the causes, development and effects of diseases and improve preventive, diagnostic and therapeutic interventions (methods, procedures and treatments). Even the best proven interventions must be evaluated continually through research for their safety, effectiveness, efficiency, accessibility and quality.

7. Medical research is subject to ethical standards that promote and ensure respect for all human subjects and protect their health and rights.

8. While the primary purpose of medical research is to generate new knowledge, this goal can never take precedence over the rights and interests of individual research subjects.

9. It is the duty of physicians who are involved in medical research to protect the life, health, dignity, integrity, right to self-determination, privacy, and confidentiality of personal information of research subjects. The responsibility for the protection of research subjects must always rest with the physician or other health care professionals and never with the research subjects, even though they have given consent.

10. Physicians must consider the ethical, legal and regulatory norms and standards for research involving human subjects in their own countries as well as applicable international norms and standards. No national or international ethical, legal or regulatory requirement should reduce or eliminate any of the protections for research subjects set forth in this Declaration.

WMA Declaration of Helsinki

11. Medical research should be conducted in a manner that minimises possible harm to the environment.

12. Medical research involving human subjects must be conducted only by individuals with the appropriate ethics and scientific education, training and qualifications. Research on patients or healthy volunteers requires the supervision of a competent and appropriately qualified physician or other health care professional.

13. Groups that are underrepresented in medical research should be provided appropriate access to participation in research.

14. Physicians who combine medical research with medical care should involve their patients in research only to the extent that this is justified by its potential preventive, diagnostic or therapeutic value and if the physician has good reason to believe that participation in the research study will not adversely affect the health of the patients who serve as research subjects.

15. Appropriate compensation and treatment for subjects who are harmed as a result of participating in research must be ensured.

Risks, Burdens and Benefits

16. In medical practice and in medical research, most interventions involve risks and burdens.

Medical research involving human subjects may only be conducted if the importance of the objective outweighs the risks and burdens to the research subjects.

17. All medical research involving human subjects must be preceded by careful assessment of predictable risks and burdens to the individuals and groups involved in the research in comparison with foreseeable benefits to them and to other individuals or groups affected by the condition under investigation.

Measures to minimise the risks must be implemented. The risks must be continuously monitored, assessed and documented by the researcher.

18. Physicians may not be involved in a research study involving human subjects unless they are confident that the risks have been adequately assessed and can be satisfactorily managed.

When the risks are found to outweigh the potential benefits or when there is conclusive proof of definitive outcomes, physicians must assess whether to continue, modify or immediately stop the study.

Vulnerable Groups and Individuals

19. Some groups and individuals are particularly vulnerable and may have an increased likelihood of being wronged or of incurring additional harm.

All vulnerable groups and individuals should receive specifically considered protection.

20. Medical research with a vulnerable group is only justified if the research is responsive to the health needs or priorities of this group and the research cannot be carried out in a non-vulnerable group. In addition, this group should stand to benefit from the knowledge, practices or interventions that result from the research.

Scientific Requirements and Research Protocols

21. Medical research involving human subjects must conform to generally accepted scientific principles, be based on a thorough knowledge of the scientific literature, other relevant sources of information, and adequate laboratory and, as appropriate, animal experimentation. The welfare of animals used for research must be respected.

22. The design and performance of each research study involving human subjects must be clearly described and justified in a research protocol.

The protocol should contain a statement of the ethical considerations involved and should indicate how the principles in this Declaration have been addressed. The protocol should include information regarding funding, sponsors, institutional affiliations, potential conflicts of interest, incentives for subjects and information regarding provisions for treating and/or compensating subjects who are harmed as a consequence of participation in the research study.

In clinical trials, the protocol must also describe appropriate arrangements for post-trial provisions.

Research Ethics Committees

WMA Declaration of Helsinki

23. The research protocol must be submitted for consideration, comment, guidance and approval to the concerned research ethics committee before the study begins. This committee must be transparent in its functioning, must be independent of the researcher, the sponsor and any other undue influence and must be duly qualified. It must take into consideration the laws and regulations of the country or countries in which the research is to be performed as well as applicable international norms and standards but these must not be allowed to reduce or eliminate any of the protections for research subjects set forth in this Declaration.

The committee must have the right to monitor ongoing studies. The researcher must provide monitoring information to the committee, especially information about any serious adverse events. No amendment to the protocol may be made without consideration and approval by the committee. After the end of the study, the researchers must submit a final report to the committee containing a summary of the study's findings and conclusions.

Privacy and Confidentiality

24. Every precaution must be taken to protect the privacy of research subjects and the confidentiality of their personal information.

Informed Consent

25. Participation by individuals capable of giving informed consent as subjects in medical research must be voluntary. Although it may be appropriate to consult family members or community leaders, no individual capable of giving informed consent may be enrolled in a research study unless he or she freely agrees.

26. In medical research involving human subjects capable of giving informed consent, each potential subject must be adequately informed of the aims, methods, sources of funding, any possible conflicts of interest, institutional affiliations of the researcher, the anticipated benefits and potential risks of the study and the discomfort it may entail, post-study provisions and any other relevant aspects of the study. The potential subject must be informed of the right to refuse to participate in the study or to withdraw consent to participate at any time without reprisal. Special attention should be given to the specific information needs of individual potential subjects as well as to the methods used to deliver the information.

After ensuring that the potential subject has understood the information, the physician or another appropriately qualified individual must then seek the potential subject's freely-given informed consent, preferably in writing. If the consent cannot be expressed in writing, the non-written consent must be formally documented and witnessed.

All medical research subjects should be given the option of being informed about the general outcome and results of the study.

27. When seeking informed consent for participation in a research study the physician must be particularly cautious if the potential subject is in a dependent relationship with the physician or may consent under duress. In such situations the informed consent must be sought by an appropriately qualified individual who is completely independent of this relationship.

28. For a potential research subject who is incapable of giving informed consent, the physician must seek informed consent from the legally authorised representative. These individuals must not be included in a research study that has no likelihood of benefit for them unless it is intended to promote the health of the group represented by the potential subject, the research cannot instead be performed with persons capable of providing informed consent, and the research entails only minimal risk and minimal burden.

29. When a potential research subject who is deemed incapable of giving informed consent is able to give assent to decisions about participation in research, the physician must seek that assent in addition to the consent of the legally authorised representative. The potential subject's dissent should be respected.

30. Research involving subjects who are physically or mentally incapable of giving consent, for example, unconscious patients, may be done only if the physical or mental condition that prevents giving informed consent is a necessary characteristic of the research group. In such circumstances the physician must seek informed consent from the legally authorised representative. If no such representative is available and if the research cannot be delayed, the study may proceed without informed consent provided that the specific reasons for involving subjects with a condition that renders them unable to give informed consent have been stated in the research protocol and the study has been approved by a research ethics committee. Consent to remain in the research must be obtained as soon as possible from the subject or a legally authorised representative.

WMA Declaration of Helsinki

31. The physician must fully inform the patient which aspects of their care are related to the research. The refusal of a patient to participate in a study or the patient's decision to withdraw from the study must never adversely affect the patient-physician relationship.

32. For medical research using identifiable human material or data, such as research on material or data contained in biobanks or similar repositories, physicians must seek informed consent for its collection, storage and/or reuse. There may be exceptional situations where consent would be impossible or impracticable to obtain for such research. In such situations the research may be done only after consideration and approval of a research ethics committee.

Use of Placebo

33. The benefits, risks, burdens and effectiveness of a new intervention must be tested against those of the best proven intervention(s), except in the following circumstances:

Where no proven intervention exists, the use of placebo, or no intervention, is acceptable; or

Where for compelling and scientifically sound methodological reasons the use of any intervention less effective than the best proven one, the use of placebo, or no intervention is necessary to determine the efficacy or safety of an intervention

and the patients who receive any intervention less effective than the best proven one, placebo, or no intervention will not be subject to additional risks of serious or irreversible harm as a result of not receiving the best proven intervention.

Extreme care must be taken to avoid abuse of this option.

Post-Trial Provisions

34. In advance of a clinical trial, sponsors, researchers and host country governments should make provisions for post-trial access for all participants who still need an intervention identified as beneficial in the trial. This information must also be disclosed to participants during the informed consent process.

Research Registration and Publication and Dissemination of Results

35. Every research study involving human subjects must be registered in a publicly accessible database before recruitment of the first subject.

36. Researchers, authors, sponsors, editors and publishers all have ethical obligations with regard to the publication and dissemination of the results of research. Researchers have a duty to make publicly available the results of their research on human subjects and are accountable for the completeness and accuracy of their reports. All parties should adhere to accepted guidelines for ethical reporting. Negative and inconclusive as well as positive results must be published or otherwise made publicly available. Sources of funding, institutional affiliations and conflicts of interest must be declared in the publication. Reports of research not in accordance with the principles of this Declaration should not be accepted for publication.

Unproven Interventions in Clinical Practice

37. In the treatment of an individual patient, where proven interventions do not exist or other known interventions have been ineffective, the physician, after seeking expert advice, with informed consent from the patient or a legally authorised representative, may use an unproven intervention if in the physician's judgement it offers hope of saving life, re-establishing health or alleviating suffering. This intervention should subsequently be made the object of research, designed to evaluate its safety and efficacy. In all cases, new information must be recorded and, where appropriate, made publicly available.