Volume : 16 | Edition : 02 | Month : July- Sep 2022

Celebrating 15 YEARS

TRAUMA & EMERGENCY
TEAMS
ACADEMIC MEDICINE SENTINEL

Proclaiming & Promoting Academic Leadership

WWW.INDUSEM.ORG

Official Voice of
Academic College of Emergency Experts (ACEE)
&
Emergency Medicine Association (EMA)
An INDUSEM Undertaking

From the Editor's desk...

Dear friends,

This July 10th, an AIIMS medical graduate walked through the corridors of the hospital building , climbed to the balcony, and fell 10 stories to his death. He has been and will be joined by an estimated 269 other Indian doctors who decide to take their lives this year.

India contributes disproportionately to the global diseases burden accounting 10% of the mental health disease burden worldwide. India has nearly 56 million cases of depression, another 41 million cases of anxiety disorders and about 210,000 suicides each year, that equates to roughly 700 cases every day. Regrettably making India the country with highest suicide rate globally.

Here I'm concerned about the exponentially increasing mental health issues unfortunately leading to suicide , amongst medical professionals in India . We know that India has one of the largest numbers of doctors in the world. Every year more than 80,000 medical students graduate as doctors from 529 medical colleges in India, and these graduates are all well aware of how mentally and emotionally challenging it can be.

Doctors face different struggles at different stages of their career that affect their mental health and cause some to end their lives. Medical students and interns face exam related stresses, sleep deprivation, poor living conditions and competition from peers. Caste & Religion based discrimination are yet so common in this learned profession. The residency period is mentally and physically demanding, the prevalence of stress, depression, and burnout in residents comes with long working hours, negative patient-related outcomes, adverse doctor–patient interactions, constant peer(competitive) pressure and interpersonal interactions with the colleagues or seniors. The occupational stress and work load amongst Doctors is unimaginable and is often presented with emotional exhaustion, loss of enthusiasm for work, feeling helpless, trapped, and defeated and reduced personal accomplishment.

This mental health issues are not restricted to doctors alone but is rampant among the nursing community as well. Nurses work closely with patients and their families and it becomes difficult for them to remain totally detached and unaffected.

Then there's the increasing issue of violence against medical professionals including medical students, interns, residents, doctors and even nursing staffs by the patient attendants.
Quite recently a case was hyped in news/social media of a private medical practitioner (Obgyn) named Dr Archna Sharma from Jaipur, who was booked for murder when her patient passed away due to pregnancy complications (PPH). The constant harassment meted to her by the deceased's family and local leaders pushed her to end her own life.

There have been nth number of such cases of violence and harassment in past where doctors and staff are beaten up to death/physical impairment, hospital is put on fire, doctors being verbally/physically abused by the patients kin. This inhumane brutality just adds to the stress of already stressed out medical professionals who are working in difficult situations for the patients sake.

Mental health issues continue to be a subject of taboo in medical profession in the Indian context.
Discrimination in obtaining insurance coverage is a common but little publicized problem for physicians with mental illness . Revoking medical license of medical professional after admitting mental health condition such as depression or treatment is common. I personally believe that a doctor who treats themself "has a fool for a patient," though most physicians are bound to treat themselves anyway, at least at some occasion. This is because the consequences of seeking treatment may subject them to stigmatization, shame, illegal inquiry, and evaluation or treatment by entities that are not aware and sensitive enough towards mental health as a life threatening issue.
This constant fear of stigma associated with mental health issues has inward-facing impacts for medical professionals' willingness to seek help or disclose

a mental health problem, which can result in an over-reliance on self-treatment, low peer support—including ostracization and judgment from colleagues and increased risk of suicide.

The question arises what can we do about it? How do we handle ourselves in such outrageous situations? How to get over it and heal ourselves? As most medical professionals are trained to put patients first, Self-care is not always prioritized among us, as we fear judgment from others or feel selfish at the thought of attending our own needs first. I personally believe effective self-care practices is crucial for mental well-being, involving self-awareness, self-compassion, the practice of altruism and the implementation of a variety of strategies: spiritual practices, relaxation, mindfulness and meditation exercises, journaling, spending time with family, taking a run, dancing, engaging in arts or creative work, spending time in nature, calling a friend, or crying in solitude; self care can be imperative to coping with the obligations, workload, and demands of our profession, and help us gain a better balance between work and overall life.

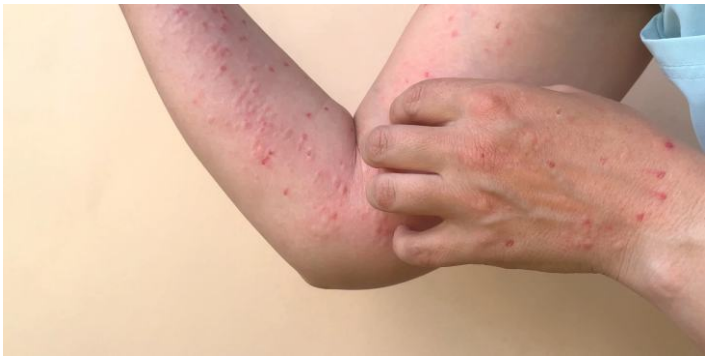
Practicing self-care can also help us create some structure and predictability amidst chaos and uncertainty and make us able to manage high levels of stress in more constructive ways.

Concluding it all, I feel Medical professionals must be respected for the vital work they do to keep populations healthy. Empathy, transparency, open disclosure, and effective & supportive communication will solidify the partnership and collaboration between healthcare leaders, healthcare providers and patients as well as other stakeholders. This will then in return provide the foundation of a healthcare system that revolves around the improvement of experiences and well-being outcomes of ALL involved. World leaders and other decision makers need to fully realize the crucial importance and value of investing in the mental health and well-being of the healthcare workforce, on individual, organizational, and societal level.

MONKEY POX

Dr. Tanvi Anand, Shaswat Sanket, Aditee Mishra

Since the death dance Covid-19 has performed, being declared a pandemic by WHO in 2020, a brand new player has entered the arena with its gun blazing, forcing WHO to ring its sirens again. On July 23rd 2022,the current monkeypox outbreak was declared to be a Public Health Emergency of International Concern (PHEIC) by WHO.



Monkeypox virus (MPX) of the Orthopoxvirus genus of Poxviridae family is not a previously unknown foe. It was discovered in Macques monkeys in 1958, first infecting humans in Democratic Republic of Congo in the 1970s. Since then,the zoonotic disease has mostly stuck to its endemic zones i.e. the 9 countries of Africa, apart from one outbreak in the USA in 2003 which was linked back to an infected pet prairie dog. The 2022 outbreak has specially proven a challenge due to its spread in non endemic zones, even in people who haven't travelled to the endemic zone.

India has joined the ranks of the countries going through the outbreak with the first case being reported on July 14th in Kerala. With the imminent increase of the disease it has become important to be aware of all that is to do with the disease.

Certain rodents (including rope squirrels, tree squirrels, Gambian pouched rats, dormice) and non-human primates are known to be naturally susceptible to monkeypox virus and can act as host of the infective organism.

Animal-to-human spread occurs through bite or scratch or meat preparation by the infected animal

Human-to-human transmission may occur through coming in contact with bodily fluids or lesion materials of an infected person directly or indirectly. The infected person may communicate the disease 1-2 days before the appearance of rash until the scabs fall off and new skin is formed underneath. The incubation period ranges from 5 to 21 days.

The WHO describes the manifestations as:

The infection can be divided into two periods -

1. The invasion period (lasts between 0–5 days) is characterised by fever, intense headache, lymphadenopathy (swelling of the lymph nodes), back pain, myalgia (muscle aches) and intense asthenia (lack of energy). Lymphadenopathy is a distinctive feature of monkeypox.

2. The skin eruption usually begins within 1–3 days of the appearance of fever. The rash tends to be more concentrated on the face and extremities rather than on the trunk. It affects the face (in 95% of cases), and palms of the hands and soles of the feet (in 75% of cases). Also affected are oral mucous membranes (in 70% of cases), genitalia (30%), and conjunctivae (20%), as well as the cornea. The rash evolves sequentially from macules > papules > vesicles > pustules > crusts which dry up and fall off.

Appropriate PPE to be donned for sample collection. Samples (fluid, base scrapings and crusts) are to be taken from the lesions in plain tubes, blood in SSGT and EDTA tubes and urine in sterile urine containers.

According to the MoHFW, for management of monkeypox, following are the diagnostic modalities :

1. PCR for Orthopoxvirus genus [Cowpox, Buffalopox, Camelpox, Monkeypox] to be done.
2. If the specimen shows positivity for the Orthopoxvirus, it would be further confirmed by Monkeypox specific conventional PCR or real time PCR for Monkeypox DNA.
3. Additionally, virus isolation and the Next Generation Sequencing of clinical samples to be used for characterization of the positive clinical specimens.
4. All the clinical specimens to be transported to the Apex laboratory of ICMR-NIV Pune.

Suspected, probable and confirmed cases are all to be isolated until either confirmed to be negative or until all the scabs have fallen off and resolved themselves.Patients to be placed in single room with dedicated bathrooms and separate ventilation.Patients in transit should wear triple layered masks and cover their skin lesions through clothes, sheets or hospital gowns.Any person to come in contact with patients have to donn appropriate PPE kit.

Monkeypox is to be managed by-

1. Protection of compromised skin
2. Alleviation of symptoms
3. Treatment of complications
4. Rehydration therapy and nutritional supplement

Again, in the face of such a global health threat the need for raising awareness in the general public comes to the forefront. Afterall prevention is always better than cure. People should be educated about the risks and prevention strategies. Public should be counselled about unnecessarily coming in close contact with people who have had recent history of travelling to endemic zones, being in crowded spaces, sharing beddings and towels and isolating suspected cases. No prejudice is to be flamed into existence as it prevents certain high risk groups (i.e. men who practice sexual contact with other men) from coming forth and revealing their ailments.

Currently, no attempts have been made by WHO for mass vaccination against Monkeypox but some countries have started using smallpox vaccines which are said to be effective .Monkeypox maybe a formidable foe but with all the resources at our disposal for prophylaxis, diagnosis and management, we can strive to stave it off!

Training in Emergency Medicine – Changing Paradigm

Dr. S K Gupta

MS, DNB, FRCS, FAMS, Professor of General Surgery, Institute of Medical Sciences, Banaras Hindu University, Varanasi-221005

Emergency Medicine (EM) is a relatively new speciality which deals with the acquisition of knowledge and skills required for the prompt diagnosis and management of acute and urgent illnesses in all age groups1. In Emergency Medicine, the ability to respond appropriately within a critical time is of utmost importance in preventing mortality and adverse outcomes. The major components of Emergency Medicine include Resuscitation, critical care, toxicology, trauma and an understanding of the clinical criteria for diagnostic investigations and imaging. Till the recognition of Emergency Medicine as an important medical speciality, most Emergency Departments across the globe were manned by physicians of diverse specializations and level of training which resulted in dismal patient outcomes. There were no specific training programmes either for the physicians or for the paramedical staff. This was rather unfortunate because patients coming to the hospital emergency Department are the ones who need specialised care by well-trained medical and paramedical personnel who can take quick decisions and start prompt treatment. However, in India, even today most of the emergency departments are staffed by poorly trained and poorly knowledgeable medical personnel who are generally at the lowest level of hierarchy be it at the level of junior doctors or at the level of consultants.

It is imperative that to provide high quality emergency care, training in the art and science of Emergency Medicine be rigorously implemented across all medical colleges in the country. Presently, in most of the hospitals in our country including hospitals attached to medical colleges, the emergency departments are manned by junior residents of Medicine, Surgery and Orthopaedics who attend emergency patients in compartments without treating the patient as a whole. This obviously leads to avoidable delays in the treatment with resultant poor outcomes. In contrast in the Western World, the recognition of Emergency Medicine as a distinct speciality with specific cognitive, technical and administrative skills occurred in the early 1980s with most medical schools offering residency training programmes in Emergency medicine. Consequently, in most of these countries the Emergency services are provided by trained physicians, nurses and paramedical staff.
Even the prehospital care is provided by trained paramedics. In a review of published literature regarding the role of training in Emergency Medicine, it was stated that Emergency medicine residency training results in improved patient care in the Emergency Department (ED). Furthermore, the trained EM faculty can deliver high quality patient care including critical care and perform selected invasive procedures. They can safely perform advanced airway management, perform both diagnostic and therapeutic emergency ultrasound studies. Thus, EM plays a very important role by providing efficient, safe and cost-effective healthcare.

Emergency Medicine in Asia

In Asia, EM was first recognized in Singapore in 1984. Initially, the doctors, nurses and other staff obtained training in USA and UK and on their return took on the training of their juniors. Subsequently, subspecialities of EM such as emergency cardiac care, emergency trauma care, emergency toxicology and paediatric emergency medicine were identified.Table 1 gives the development of EM in various countries of Asia. In 2020, vide Gazette notification dated October 29, 2020, the NMC mandated that all Medical colleges must have a Department of Emergency Medicine from the academic session
2022-23 onwards.

Work load in Emergency Medicine

Over the years there has been an increasing patient load in the emergency departments which is much more than the expected increase due to population growth. This has resulted in overcrowding in emergency departments which in turn leads to multiple adverse outcomes because of increased medical errors, patient dissatisfaction, increased mortality and the inability to respond appropriately to mass casualty incidents3. Easier accessibility to Emergency services has also resulted in more and more patients coming to Emergency Departments for non-emergency primary healthcare services.

Emergency Medicine healthcare personnel

Doctors in the Emergency Department have to deal with patients with a diverse range of presentations and severity depending upon the type of healthcare facility. In the vast majority of these patients there is no diagnosis and therefore the doctor has not only to make a diagnosis but also simultaneously manage the patient. With increasing availability of advanced medical technology, it is possible to make a diagnosis as well as treat life threatening conditions better than what was possible previously. While this has made the practice of EM more rewarding it has also necessitated that doctors in the ED must be well trained and knowledgeable in all branches of medicine. This alone will ensure that they are able to recognise critical cases and intervene in the the shortest possible time. Hence the need for recognizing the specific needs and requirements of training in Emergency Medicine.

Like doctors, the nursing personnel also must undergo specific training to be able to manage the emergency cases of varying degrees of severity and complexity. Many times the nursing personnel may be the first point of contact in the emergency department even before the physician has seen the patient. Therefore, the nursing personnel must be able to recognize patients who are critically ill and must be able to take prompt decisions and actions. They should be trained in the use of advanced monitoring and treatment equipment4. The recognition of the important role of the nursing personnel in the ED makes it imperative to set up specific and formal training programmes in EM for the nursing personnel. Data on the availability of certified emergency nurses is scarce.

Emergency Medical Services

It is now being increasingly recognized that prehospital care and prompt transportation of seriously ill patients to ED is also important for improving outcomes. There is an emphasis on providing well equipped ambulances which are manned by trained paramedical personnel who can provide treatment en-route to seriously ill patients. In the pan-Asian resuscitation outcomes study (PAROS)5, it emerged that emergency medical technicians lack the skills to perform advanced life support measures.

Training in Emergency Medicine

Emergency medicine has been incorporated into the undergraduate medical curriculum as a compulsory clinical rotation during Internship for the last many decades but lack of a structured training and oversight of clinical skills acquisition has resulted in inadequately trained medical graduates. Most of them utilize the time of posting in the Emergency Department in preparing for the postgraduate entrance test. The emphasis on competency based medical education (CBME) and requirement of log books to document the clinical skills acquired is a step in the right direction to ensure that medical graduates gain basic insight into management of emergency cases. Academic College of Emergency Experts in India (ACEE-India) has been a powerful advocate for developing Academic EM in India. The ACEE's Education Development Committee (EDC) was created to chalk out guidelines for staffing, infrastructure, resources, curriculum, and training which may be of help to the MCI and the National Board of Examinations (NBE) to set standards for starting 3-year training program in EM and develop the departments of EM as centers of quality education, research, and treatment across India

In order to promote the specialty of EM, particularly teaching and training of both post graduates and faculty in EM, an INDO-US Emergency and Trauma Collaborative was established in 2007. This collaboration led to the creation of the Academic College of Emergency Experts (ACEE) in India. The main focus of the College is to impart training to faculty from different disciplines in the field of EM so that they in turn can teach and train post graduates of departments of EM. The ACEE-India proposes that for starting a Department of EM, the hospital should have at least 20 beds exclusively earmarked for EM where initial resuscitation and observation of patients with all types of emergencies can be carried out. Of these 20 beds, at least six beds should be Intensive Care Unit (ICU)/High-Dependency Unit (HDU) beds where immediate resuscitation and stabilization of the patients can be carried out. Other beds should be for observation and management of patients. In addition, facilities for triaging patients should be available.

The requirement of having a Department of Emergency Medicine in all medical colleges as a prerequisite for running MBBS courses will make it imperative for colleges to start postgraduate training in Emergency Medicine. The beginning that has been made in this direction by the All India Institute of Medical Sciences and the National Medical Commission will, in the years to come not only create a pool of highly skilled and trained emergency medicine doctors but will dramatically improve the quality of care being delivered to critically ill patients coming to the Emergency Departments in the hospitals across the country. Despite the many challenges, the recognition of Emergency Medicine as a distinct speciality and the passion and drive of those who practice this art we can be confident that Emergency Medicine will continue to develop and progress for the betterment of medicine as well as of the community.

Table 1. Development of Emergency Medicine (EM) in Asia

COUNTRY	Year EM recognized	Year Postgraduate exams established
Singapore	1984	1990
Philippines	1988	1991
South Korea	1996	1996
Hong Kong	1997	1997
Taiwan	1997	1997
Malaysia	2002	1998
Japan	2003	2002
Thailand	2003	2007
India	2009	2009

References :

1. Pek JH, Lim SH, Ho HF et al. Emergency Medicine as a Speciality in Asia. Acute Medicine & Surgery 2016; 3:65-73

2. Holliman CJ, Mulligan TM, Suter RE et al. The efficacy and value of emergency medicine: A supportive literature review. Int J Emerg Med 2011; 4:44

3. Moskop JC, Sklar DP, Giederman JM, Schears RM, BookmanKJ. Emergency department crowding, concepts, causes and moral consequences. Ann Emerg Med 2009; 53: 605-6114.

4. Chan GK, Garbez RO. Education of advanced practice nurses for emergency care settings: Emphasizing competencies and domains. Adv. Emerg. Nurs. J. 2006; 28: 216–25

5. Ong MEH, Cho J, Ma MH et al. Comparison of emergency medical services systems in pan-Asian resuscitation study countries: Report from a literature review and survey. Emerg. Med. Australas. 2013; 25: 55–63

6. Aggarwal P, Galwankar S, Kalra OP, Bhalla A, Bhoi S, Sundarakumar S. The 2014 Academic College of Emergency Experts (ACEE) in India's Education Development Committee (EDC) White paper on establishing an academic department of Emergency Medicine in India – guidelines for staffing, infrastructure, resources, curriculum and training. J Emerg Trauma Shock 2014; 7: 196-208

"Education is All about Motivation and Not about Humiliation. Motivate Your Students To Learn , Inspire your Teachers to Teach. The Guru-Shishya Parampara Is the Core of Learning because knowledge grows by Sharing !

Dr. Sagar Galwankar
MBBS,DNB (India), FRCP (UK)
MPH, FAAEM,FAIM, Dip. ABEM (USA),
President Of ACEE & CEO INDUSEM

Remembering our heroes

1. He revived the Indian national Army popularly known as Azad Hind Fauj in 1943, he escaped the eyes of the British to ultimately reach Germany during the Second World War
- Subhash Chandra Bose

2. As a soldier in the East India Company's army's 34th Bengal Native Infantry (BNI) regiment, he led the sepoy mutiny, which eventually led to the 1857 uprising.
-Mangal Pandey

3. He was a participant in the infamous Kakori train heist, for which the British government condemned him to death.
- Ramprasad Bismil

4. She became the first Indian woman to be President of the Indian national congress and went on to be appointed an Indian state governor.
- Sarojini Naidu

5. He was involved in a plot in 1928 to assassinate James Scott, a British police superintendent to exact revenge for the death of Lala Lajpat Rai was sentenced to death by hanging by the British, and executed at the age of only 23.
- Bhagat Singh

6. He was one of the most influential leaders of Gujarat, who organized peasant movements against the British based on Gandhi's ideals of non-violence. His efforts led to the integration of around 562 princely states.
- Vallabhbhai Patel

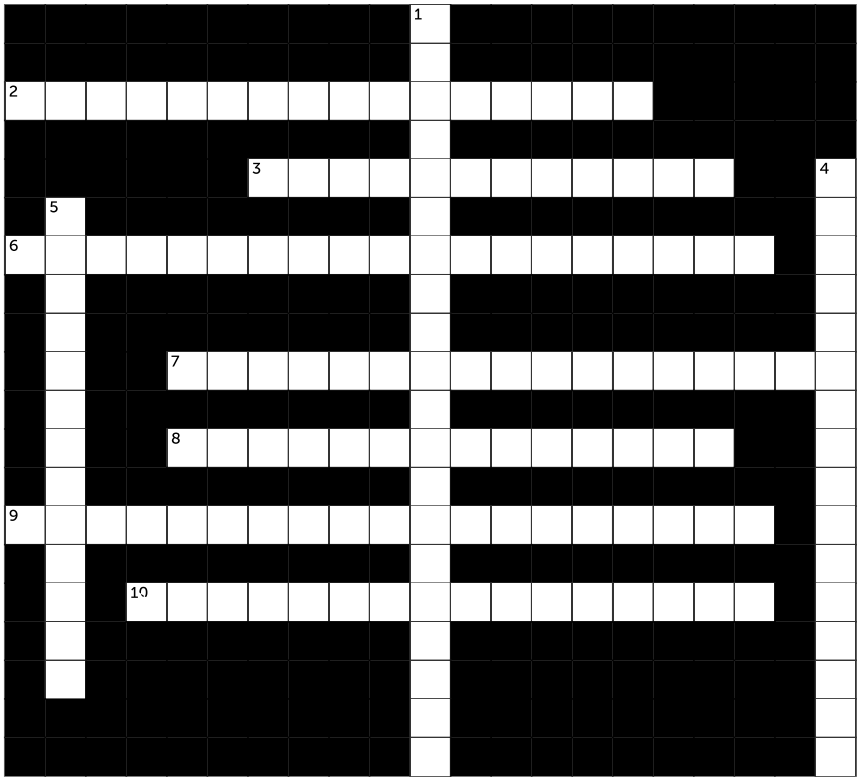
7. Famously known for his quote, 'Swaraj is my Birthright. He published several rebellious newspapers and built schools to defy British Rule.
- Bal Gangadhar Tilak

8. She was one of the most fierce members of the Revolution of 1857. She defended her palace with her newborn child in the year 1858 which was invaded by the British Forces.
- Rani Lakshmi Bai

9. He established the Abhinav Bharat Society and the Free India Society. Swatantryaveer Savarkar was his given name. As a writer, he also penned a piece named 'The Indian War of Independence which provided wonderful information about the 1857 Indian revolt.
-Vinayak Damodar Savarkar

10. He participated in various movements such as the Quit India movement, Civil Disobedience movement and other satyagrahas led by Mahatma Gandhi. He died in Tashkent in 1966 as Prime Minister of India.
- Lal Bahadur Shastri

SOLVE THE CROSSWORD



ACROSS

2. He was a participant in the infamous Kakori train heist, for which the British government condemned him to death

3. He was involved in a plot in 1928 to assassinate James Scott, a British police superintendent to exact revenge for the death of Lala Lajpat Rai was sentenced to death by hanging by the British, and executed at the age of only 23

6. Famously known for his quote, 'Swaraj is my Birthright. He published several rebellious newspapers and built schools to defy British Rule

7. He was one of the most influential leaders of Gujarat, who organized peasant movements against the British based on Gandhi's ideals of non-violence. His efforts led to the integration of around 562 princely states

8. She became the first Indian woman to be President of the Indian national congress and went on to be appointed an Indian state governor

9. He participated in various movements such as the Quit India movement, Civil Disobedience movement and other satyagrahas led by Mahatma Gandhi. He died in Tashkent in 1966 as Prime Minister of India

10. He established the Abhinav Bharat Society and the Free India Society. As a writer, he penned a piece named 'The Indian War of Independence which provided wonderful information about the 1857 Indian revolt.

DOWN

1. He revived the Indian national Army popularly known as Azad Hind Fauj in 1943, he escaped the eyes of the British to ultimately reach Germany during the Second World War

4. She was one of the most fierce members of the Revolution of 1857. She defended her palace with her newborn child in the year 1858 which was invaded by the British Forces

5. As a soldier in the East India Company's army's 34th Bengal Native Infantry (BNI) regiment, he led the sepoy mutiny, which eventually led to the 1857 uprisin