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RE

WELLBEING DURING THE PANDEMICS

AMSA INTL RECENT ACTIVITIES

Featuring AMSA International Webinar Series, JAMSA, and many more!

HEALTH ISSUE

Featuring updates towards COVID-19 vaccines, mental health issues during pandemic, and many more!

GIFTS FROM US

Free wallpapers to use on your gadgets!

QUIZ TIME & CLINICAL CHALLENGE

Challenge yourselves with these quiz and claim your rewards!

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FOREWORD

Dear People of Tomorrow,

Welcome to the **32nd edition of AMSA International eNewsletter: ASPIRE**. First and foremost, we would like to express our deepest gratitude to all contributors of ASPIRE #32. ASPIRE #32 will continue to be dedicated as a platform for members of AMSA International to express their talents and interests.

The name ASPIRE itself is given to symbolise the attitude we aspire for immense sea of knowledge and aspire for creation of a healthier world. ASPIRE #32 was made in order to commemorate health days such as World Mental Health Day, World Food Day, World Handwashing Day, Antibiotic Awareness Week and the World Diabetes Day. We have been going through the Covid-19 pandemic for almost one year and this pandemic really affects our life in many aspects. In this edition, you will find many articles written by members of AMSA International about wellbeing and health maintenance during this COVID-19 pandemic. We also featured updates about COVID-19 vaccines in this edition.

A new feature in ASPIRE 32 is the Quiz Time section. The Quiz Time section is a fun quiz made especially for members of AMSA International. To answer the Quiz Time, you will need to scan the QR code to get the Instastory template. Answer the question in your Instastory and tag our official Instagram @amsa_intl to submit the answer! We also continue to feature the Clinical Challenge in ASPIRE 32. Scan the QR code at the end of the eNewsletter and answer the questions on the given website! Both Quiz Time and Clinical Challenge winners will receive a reward and will be published in the next edition of ASPIRE. So, don't miss this challenge and get your reward!

Another new feature is the Free Gifts section and the Letters from Far Far Away! We provide free wallpapers for all members of AMSA International to use in the Free Gift section! Feel free to scan the QR code and use it to decorate your gadgets. Letters from Far Far away is a section for members of AMSA International to say hello and keep in touch with other members. You might be stuck in this pandemic, but don't let it stop you from interacting with all other members of AMSA International!

We sincerely hope that ASPIRE #32 will give deeper knowledge to everyone and will encourage all members of AMSA International to stay safe and healthy during this pandemic.

Enjoy reading, and be inspired with AMSA International eNewsletter!

Virtus et Doctrina, Viva AMSA!

Adeela Sandria
Chief Editor of eNewsletter
AMSA International



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AMSA INTERNATIONAL 2020/2021

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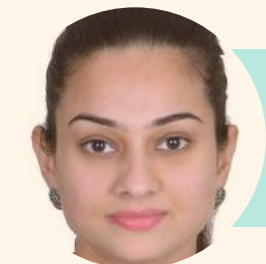
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**OVERALL
CHAIRPERSON'S
ADDRESS**

Dear People of Tomorrow,

It is the 35th anniversary of AMSA International and I am honoured to be elected as the Overall Chairperson of AMSA International Tenure 2020/2021.

For decades, AMSA has committed to be an inspiring nest for knowledge cultivation, a prestigious home for momentous actions, and a strong network for abiding friendships. I myself have experienced them all. The sweet nature of AMSA has driven me to contribute and serve in AMSA locally, nationally, and internationally.

Being able to lead medical students across Asia, Asia-Pacific, and beyond is the greatest gift of 2020. It became better when I got to know my brilliant crew - the fresh and enthusiastic amazing souls. I am so blessed and grateful for them.

Unequivocally, the year 2020 is difficult for many with the COVID-19 pandemic, but the Executive Committee has pledged to overcome the uncertainties at stake for each of our members. This tenure, we aim to empower each of our members with new extensive heights through Knowledge, Action, and Friendship. AMSA will be born anew with an established identity and branding, as a registered non-governmental international medical student organisation.

The members of AMSA International serve as the foundation and pillar of AMSA. We are very blessed for each of your presence. Your enthusiasm and passion have inspired us to bring AMSA to greater heights. Therefore, I hereby AMSA International Tenure 2020/2021, promise to lead AMSA and her members to greater heights this tenure.

Together, we overcome the pandemic; Together, for a greater AMSA.

If you are yet to embark on an 'AMSA-ful' journey with us, feel free to reach out to me (chair@amsa-international.org) or Jun (secretary@amsa-international.org). For further contact details, please refer to the list of email addresses under the Contact Us tab of our website.

Stay safe and tuned to AMSA.

Thank you.



Cordially,
Marjorie Ong Jia Yi,
Overall Chairperson,
AMSA International 2020/2021.



AMSA INTERNATIONAL
EXECUTIVE
COMMI



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Katrina Ysabelle B.
Director of Membership
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Director of Marketing
and Sponsorship



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Liaison Officer to
GO & NGO



Nadira Nibras T.
Liaison Officer to Medical
Students' Organisation



Rezqita Ramadhani
Liaison Officer to Non-Medical
Students' Organisation



OUR
PROFILE



Marjorie Ong Jia Yi

Overall Chairperson

Marjorie is a fourth year medical student of The National University of Malaysia, from Penang, Malaysia. The Overall Chairperson of AMSA International 2020/2021.

She was born at the Pearl of the Orient. Though to much surprise, she does not carry much of an oriental character. A chameleon is by far the best spiritual reptile to describe her character as a whole – innovative and ambitious, yet assertive.

Born and raised of mixed heritage, she is always curious and attracted to the different cultures of Asia, and the other parts of the world. She can converse in various Asian languages and possess multiple artistic secrets that are yet to be unfolded. She is indeed a qualified individual to lead AMSA International

Clinically and academically, she has contributed in many writing works for various local industries – healthcare, governance and tourism. She has always loved writing and is grateful to be appointed as content providers to many writing projects of her country since 2015.

Her past working experiences have efficiently helped her rebrand the AMSEP subsidiary through her national service as National Do-AMSEP of AMSA Malaysia Tenure 2018/2019 and international service as DoAMSEP of AMSA International Tenure 2019/2020. Being elected as the OC of AMSA International, she hopes to make AMSA greater with the enhancement of legislative documents, identity and structure.



chair@amsa-international.org



Vellia Justian

Vice Overall Chairperson External

Vellia is currently a fourth-year medical student of Universitas Indonesia, Indonesia. She is the Vice Overall Chairperson (External) of AMSA International 2020/2021.

Passionate in social services and organisational activities, she was an active member of Public Relations and Social Services division in her AMSA-University before working as the Chapter Representative for Indonesia in J-AMSA Editorial Board and later as the Liaison Officer to Medical Students' Organisations.

Throughout her journey in AMSA, from local to international level, she has participated in and led various events, spanning the gamut from exchange programmes, conferences, to social projects, and training programmes. This is where she found her in-depth interest in developing connections with new people from various backgrounds and cultures. She also believes in the power of collaboration between medical students and various stakeholders in creating meaningful impacts on the community. All of those experiences and opportunities provided by AMSA has motivated her to dedicate herself to AMSA International as the Vice Overall Chairperson (External), hoping to strengthen AMSA International as an organisation through external collaborations, as well as for its members to grow and actualise their potentials from the opportunities ignited.

Beyond her AMSA and medical journey, she has recently discovered a new interest in writing and is currently creating contents to raise awareness about mental health. She adores her dogs, Sushi and Kimchi, back at home and she is always down for culinary adventures.

Don't hesitate to buzz her if you have any questions or ideas, health-related or not, as she's open to any discussions



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Samarvir Jain

Vice Overall Chairperson Internal

My name is Samarvir Jain, Vice Overall Chairperson (Internal) for AMSA International 2020/21. I am Pre-Final Medical Student studying at Dayanand Medical College, Ludhiana.

I am also holding the post of Director of IT at AMSA India. Vector Designing is my passion. I was also a part of design team at EAMSC 2020, India. In my free time, designing and coding are the subjects i love to do. I usually find excuses to play Badminton, Table tennis. I am fond of reading and travelling.

Dedicated to AMSA!!!



vicechairinternal@amsa-international.org



Junjungan Nimasratu R. General Secretary

Junjungan, or Jun for short, is a fourth-year medical student in Universitas Airlangga, Indonesia. Throughout her four years in university, she has been a part of AMSA since day one, and AMSA has always been a part of her as well. Her journey began as a Newbie, to being a Local AMSEP Officer, to being chosen as the National Director of AMSEP, and now to being elected as the General Secretary of AMSA International.

Jun is known to be bubbly and critical, and thoroughly enjoys secretarial and clerical work. In her free time, she loves spending time in the kitchen to cook or bake.



Jonez Roring General Treasurer

Jonez was born in the capital city of Indonesia, Jakarta on the 1st of August 1999. He is currently a third year medical student from Faculty of Medicine Universitas Indonesia batch of 2017. He has been part of AMSA-UI since 2018 and is currently an active member in the Public Relations and Social Service division in AMSA-UI. Spending most of his childhood outside Asia, Jonez is familiar with a variety of cultures. He grew up in New Hampshire, USA in a multicultural neighbourhood. Being in company with other people is something Jonez enjoys. Ever since he was young, he finds pleasure being exposed to different backgrounds and ethnics as sharing different opinions and insights is something that interests him. Jonez has extensive experience with interacting with other people as well as he has attended multiple conferences. The scale of the conferences Jonez has attended vary from domestic to international. It has been said that making connections with others is Jonez's forte. He possesses a friendly personality that is inviting for anyone who approaches him. Now, Jonez currently lives in a suburb close to the Jakarta called Depok where his campus is located. He spends most of his leisure time watching American sports and TV series. Another thing that occupies his free time is playing online games.



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Tasnim Shahriar
Director of Information
and Technology

Tasnim Shahriar is a 4th year medical student of Khulna Medical College. He is from a country which is well known for its colorful culture and delicious food and the country is Bangladesh .

He loves to do IT stuffs. Travel the world and taste diverse food from all around the world is one of his passion. Now he is IT director in AMSA International and in AMSA Bangladesh.



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Jeremy Rafael Tandaju
Director of Academics

Jeremy is a fifth year medical student in Faculty of Medicine Universitas Indonesia, practicing in Cipto Mangunkusumo National Central Hospital. He is formerly director of academics AMSA-Universitas Indonesia and academic team of AMSA-Indonesia. Besides his interest in academic writing and research, Jeremy loves jazz music and keen on playing musical instruments, especially piano and currently being part of his batch's band. Jeremy also active in one of the nationwide medical news agency "Media Aesculapius" as finance and promotion team and sometime writes article for both practitioners and communities



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Oshin Puri
Chief Editor of the JAMSA

This is Oshin Puri, second professional medical undergraduate studying at All India Institute of Medical Sciences, Rishikesh and the Chief Editor of the Journal of Asian Medical Students' Association [J-AMSA] at AMSA: International 2020-21. He aspires to be a proficient healthcare professional and aims at exploring and employing the vast subject of surgery to provide exceptional service to mankind in years to come. Besides this he is fascinated by the enticing world of research which he wishes to explore, unveiling the concealed truths of neurosciences. Publication in a renowned journal is an inseparable component of research and thus, he shall use his experience in this field to make J-AMSA, one of the very few indexed international student lead research journals, a platform for the AMSA family to gain recognition for their research work



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Adeela Sandria F. A.
Chief Editor of eNewsletter

Born and raised in Indonesia, Adeela is a 4th year medical student who is highly passionate in graphic design and acting. She is known for her cheerful and friendly attitude toward others. A strong-willed person, she believes that no matter how hard life gets, there will always be an opportunity to overcome any challenge and find the solution



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Muhammad Maulana W.

Director of Membership
and Development

Maulana is a fourth-year medical student from Faculty of Medicine Universitas Indonesia. Before joining AMSA International, he was an active member of AMSEP Division in AMSA-Universitas Indonesia. Throughout his journey in AMSA, Maulana has participated in various events, from local to international. He is very passionate in connecting with people from various backgrounds, which became his motivation to actively participate in AMSA activities. He believes that AMSA is an organization which has a huge potential to connect medical students throughout the globe and provide chances to share common interests with other medical students. Therefore, he applied as Director of Membership AMSA International to share that vision and together actualize it in AMSA.



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Katrina Ysabelle Bolanos

Director of Membership
and Development

Kat is a 4th year medical student from the University of the Philippines College of Medicine.

She has a passion for people and a heart for leadership, as a member of several organizations ranging from public health, advocacy, choir production, student publication, education, and community service.

Her interests include organizing and styling, planning events, travelling, and reading. On her free time, she's out with her friends, always looking for new food and experiences to try. Open-minded, witty, with a cheerful disposition, she's definitely someone you can have great conversations with.



conference@amsa-international.org



Daniell Edward Raharjo

Director of Publication
and Promotion

When not binging on Netflix shows or Youtube videos, Daniell Edward Raharjo is renowned for his passion in graphic design. Designing posters and Instagram posts have become much like a routine for this budding, doctor-to-be. He finds art and design as a special way to apply his time outside of medicine while in the midst of a hectic medical school life. Aspiring to give AMSA International as fresh new face, he decided to take the role as Director of Publication and Promotion—enabling him to reinvent AMSA International's identity as a non-governmental organization.

Peering back in time, his journey in AMSA had officially begun since his second year of medical school in Universitas Indonesia, during which he took roles as the Director of Finance in his local university, became part of the National Research Team in AMSA-Indonesia, and contributed as one of the members of the eNewsletter Editorial Board—his first glance of AMSA International. Last year, he took greater responsibility as the Director of Academics as another outlet of his interests in academia. Now in his fourth year, his passion in AMSA International has pushed him to continue his path in AMSA International as the Director of Publication and Promotion.

Furthermore, wedged between his tight schedule between organizations and competitions, he takes pleasure in what everybody else does: watching movies and TV shows, chilling to mellow music, and lounging around on the bed before inadvertently falling asleep. Among his hobbies, he takes special interest in drawing (which you would find him doing any time during a mundane lecture), graphic design, as well as skating — whether on ice or wheels.



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Nathan So

Director of Publication
and Promotion

My name is Nathan So, Director of Publications and Promotions of AMSA International 2020-21. I'm currently in my final year of Pre-clinical studies at the Chinese University of Hong Kong.

Previously, I held the post of director of Media and Publications in AMSA International, as well as working in a administrative capacity assisting in organising our flagship programs, MedStart and Med-Bridge.

In my free time, I play basketball and video games, and my passions are in photography and videography.

I'm excited to see what this opportunity to be a part of AMSA International might bring, and look forward to working with you as a DoPnP



promotions@amsa-international.org



Davyna Abysha G. **Director of AMSEP**

Davyna Abysha, currently a third-year medical student, is the Director of Asian Medical Students' Exchange Programme (AMSEP) International. Originating from a country that's known for its ethnic diversity, beautiful Malaysia, Davyna strongly believes that AMSEP should be as diverse as well – by encouraging various nations across the Asian region to be a part of the most anticipated exchange programmes. This year, with 18 AMSA Chapters participating in AMSEP, Davyna hopes to bring AMSEP to greater heights by expanding the circle and getting more chapters to be a part of the AMSEP family. All physical exchanges have been put to halt in light of the COVID-19 pandemic, however, she works hard with her team of National AMSEP Directors to ensure the best out of the virtual exchanges held within AMSA and with other medical student organisations such as the European Medical Students' Association (EMSA) and the Federation of African Medical Students' Association (FAMSA). Being a steadfast and strong-willed individual, Davyna has implemented several improvements to her university's AMSA board. These improvements include publishing a local AMSA Guidebook in hopes to provide efficient training to the local AMSA board's successors.

Apart from being medically-engaging in academics, Davyna's personal hobby revolves around writing and journaling. To date, she has written in opinionated articles and has gotten some of her work published nationally. As she is an untiring advocate for education equity, Davyna is also a volunteering teacher who aspires to empower young children by providing structured and sustainable reading programmes through a national organisation. Otherwise, Davyna enjoys impromptu coffee sessions with good company and wishes to venture into photography someday.

Meanwhile, just like everyone else, Davyna is strongly hoping for the global health situation to improve to sustain the nature of AMSEP in being held physically. Above all, she hopes that everyone is coping well amid the pandemic and mentions that she's always down for a conversation



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Khushman Kaur Bhullar **Director of Public Health**

Khushman Kaur Bhullar, more affectionately known as Khush, is a 3rd year medical student at Sri Guru Ramdas Institute of Medical Sciences & Research in the culturally and geographically diverse country, India. Khush has been appointed as the Director of Public Health at AMSA International 2020/21.

Initially, Khush was motivated to join AMSA on getting to know about International Undergraduate conferences. Later, she started getting involved with small public health activities in her college and eventually gained insight and dedication to contribute to public health both regionally and internationally. Back home, she has previously worked as the Secretary of Marketing & Sponsorships for 2019/20 and Vice Overall Chairperson External at AMSA India for 2020/21. During this pandemic, she has also led an International Women's Health Team in the Global Grassroots Movement – Students Against Covid, working in lines with SDG 3 & 5.

As the Director of Public Health, Khush is responsible for maintaining official relations with WHO and its Regional Offices, prepare delegations to the Public health conferences and meetings and work in Coordination with the national Directors of Public Health to bring about International public health projects and opportunities to participate in International public health projects working in lines with UN Sustainable Development Goals. As her first project, Khush prepared the 5 member Delegation of AMSA International to the 73rd Regional Committee meeting of WHO for South-East Asia. A key message from the 73rd RC was that all stakeholders of the society need to work together to Sustain Vigilance & engagement of communities in compliance with Public Health Measures, Accelerate the response together and Help Innovate novel ideas to ensure 'Universality' of Healthcare.

Vision for the future – To unite all AMSA Chapters to work for joint focus areas of public health, Creating joint global policy statements and advocacy sessions, training young medical professionals about the UN Sustainable Development Goals and working towards bringing in more public health opportunities internationally



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Cher Pin So

Director of Marketing
and Sponsorship

I am born and raised in Malaysia, currently 4th year medical student from University of Glasgow, UK. Nothing can make me happier than travelling, meeting new people and making a positive impact on society, which is where my passion for AMSA came from.

Being able to exchange ideas and knowledge with people from different cultural, ethnic, racial and socioeconomic background always keep me inspired and motivated. Please do not hesitate to contact me if you have any questions or any interesting ideas that you would like to share with us



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Nindita Putri

Liaison Officer to GO & NGO

I'm Nindita from Indonesia. Currently I'm a 3rd year medical student at Universitas Indonesia. I really enjoy listening to music, socialising with my friends, playing basketball and watching action movies. I am a reliable and sociable person. And I'm also really open to new people and conversation. Feel free to contact me!



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Nadira Nibras Taqiyya

Liaison Officer to
Medical Students' Organisation

Nadira Nibras Taqiyya, more affectionately known as Nibras, is a fourth-year medical student in Padjadjaran University, Bandung, Indonesia. Best described as a fun-loving, conscientious, and optimistic realist, she loves to be of service and puts high value in genuine human connections. On her downtime, she enjoys playing futsal, writing, socializing, and getting some good sleep (always). As someone who loves to discover new experiences, AMSA has been the perfect place for her to learn and grow. Since her first year of medical school, Nibras has partaken in and led various local, national, and international projects and activities. Her current position as Liaison Officer to Medical Students' Organization is well-suited to her passion and beliefs. She hopes to represent AMSA International in the best light while expanding and strengthening connections with fellow medical student organizations.



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Rezqita Ramadhani

Liaison Officer to
Non-Medical Students' Organisation

Although being a girl from a small city in Indonesia, Rezqita Ramadhani always dreams big. She is a passionate worker and also motivated through her desire to quest, connect, and make an impact in the international community. An upholder of strong values and principles, she always advocates for what she believes in. For her, life is either a great adventure or nothing at all! People affectionately call her Eqi. She's a 3rd-year medical student from Maranatha Christian University and now she is working as the Liaison Officer to Non-Medical Students' Organizations.



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AMSA INTER **EVENTS AND**



INTERNATIONAL AND ACTIVITIES



AMSA INTERNATIONAL WEBINAR SERIES: Current Approach Towards COVID-19

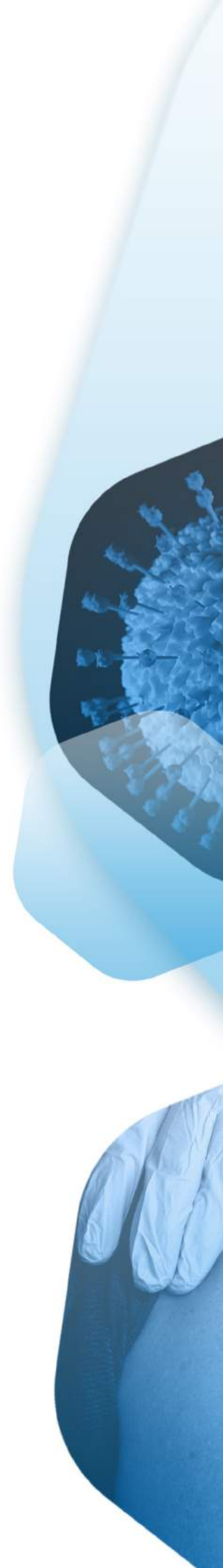
Congratulations to the Director of Academics, for kick-starting this year's Academic Events with the very first webinar in the AMSA International Webinar Series. The event was held on the 24th and 25th of October and spanned over 2 hours each day. Prior to the event, a pre-test was held to measure the participants' knowledge in regard to the topics that were going to be presented. After the event, the participants' knowledge was re-evaluated through a post-test. Both items were pre-requisites to obtain a certificate of participation.

Day 1 covered the current updates on COVID-19 diagnosis and what to expect, by Dr. Gurbilas P Singh followed by a talk by Dr. Gurmeet Singh on recent strategies of COVID-19 management with respect to inpatient and outpatient care. Day 2 covered COVID-19 updates from different perspectives: from healthcare to medical education.

Dr. Gurbilas Singh is dual accredited in Gastroenterology and General Internal Medicine in the UK and is a therapeutic/

Interventional endoscopist who practises in Amritsar, India. He spoke on the background of the disease, how to suspect a diagnosis of COVID-19, key points in history taking, clinical manifestations, classification, comorbidities, immune response, laboratory findings, various tests available to detect the disease and their accuracy, advantages, disadvantages, indications, and algorithms for diagnosis. He discussed the various imaging modalities such as x-rays and CT scanning and the various newer tests and biomarkers for the disease with the recent advances such as testing various samples like the ocular fluid, saliva, stool and many more. The surveillance strategies used in various settings were also talked about along with the general advice to help contain and face the pandemic.

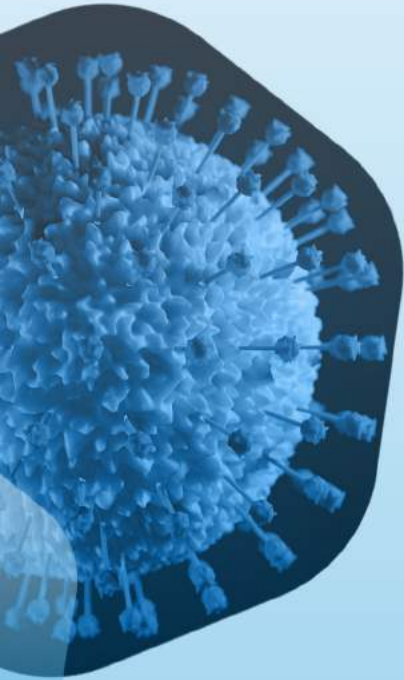
This was followed by another session by Dr. Gurmeet Singh, who is an Internal Medicine specialist and a Pulmonology consultant at Universitas Indonesia. He has also received training in Interventional



Pulmonology and Advanced Trauma and Life Support. He mentioned various diagnostic modalities such as bronchoalveolar lavage, pathophysiology of the disease, phases of the disease, clinical presentation, and the decision to treat on an inpatient or outpatient basis. He also talked about the various drug trials with their significance; this included antivirals and medications such as favipiravir, lopinavir-ritonavir, doxycycline, chloroquine, dexamethasone, tocilizumab and other diverse treatment modalities and their success rates and significance. The implication of convalescent plasma and its success rates were also reviewed. The requirement for anticoagulation due to the prothrombotic stage was also debated upon. Benefits and recovery rates of prone position ventilation and also prone position CPR were talked about in detail. The pros and cons of life

supporting equipment such as the ventilator and ECMO and the function of immunity boosters such as zinc, the significance of sleep was addressed. Finally, towards the end of the session the prognostic factors were talked about in detail.

The second day's webinar kicked off with Dr. Angeline May M. Santos, MD's lecture, who is a Paediatrics and Infectious Disease Specialist. She discussed about the current prevention measures of COVID-19 and updates on vaccine progress. As of 24th of October, COVID-19 has affected 188 countries and 25 territories around the globe. Therefore, we must act to break the chain for COVID-19, through infection prevention and control which aims to prevent transmission through limiting human-to-human transmissions, reducing secondary infections, and preventing super-spreading events. The previous SARS and



MERS outbreaks have taught us that medical masks, N95 masks, gowns, play a pivotal role in mitigating cessation of the outbreak. More methods for IPC in healthcare settings include implementation of telehealth medicine, providing screening and dividing patients based on triages, re-evaluating inpatients for COVID-19 signs and symptoms, implementing WHO-approved control measures including face coverings, encouraging the act of physical distancing, implementing public use of personal protective equipment, and optimising the use of indoor air quality controls. However, this is different when health professionals are caring for patients with COVID-19. A 4th level PPE should be used, and patients should be isolated, whether at home or in a single room with individual bathrooms. Compliance is a huge challenge in this matter.

When talking about COVID-19 vaccines, there are many challenges in the midst of the processes. There is a possibility of enhanced diseases after the shot, and immune reactions and responses after the shot are still in the middle of evaluation. Cross-reactivity may happen as well. However, we can hope that a vaccine would have been established by the end of 2020/early 2021. The main concern in the process is the safety of the vaccine, as it is a top priority: non-maleficence.

The second webinar is brought by Prof. Dr. Roslina A Manap from the National University of Malaysia, which is also about current approaches towards COVID-19 as well, from a different perspective. She emphasised telemedicine as a prospect for the future, as practicing medicine with a distance seems more



promising to ensure physical distancing. However, the rise of telemedicine will not be able to replace face to face medical consultations, as physical examinations are unable to be performed virtually. However, telemedicine is very much useful for stable patients who need a routine follow-up/check-up, as most of the time, their aim is to have the medical professionals assure and empower them throughout their battle with their diseases. Practises that can implement telemedicine include nutrition counselling and mental health counselling. Many benefits are proven, including a reduced rate of congestive heart failure, office efficiency, and improved health outcomes. COVID-19 has also impacted medical education, as medical students ongoing the clinical stage will not be able to experience clinical bedside teachings as much as the previous cohort. Students have to

learn how to live with risks and uncertainties. Effective communication is essential to go through the pandemic as medical students.

Following the end of both the sessions by the speakers, a Q&A session was initiated, where the doubts and questions the members had were addressed live in the session.

To watch this informative webinar, go through AMSA International's official YouTube channel to find a live recording of the whole webinar.

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CURRENT UPDATES ON DIABETES MANAGEMENT

AMSA International Webinar Series: Current Updates on Type 2 Diabetes Management was held on Saturday, 14 November 2020 in order to commemorate the World Diabetes Day. Before the webinar session begin, all participants were required to fill in the pretest questions via Google Form.

The first lecture was the Bariatric Surgery for Type 2 Diabetes: Weighing Risks and Benefits by Dr. Wilfred Mui. Dr. Wilfred Mui is a General Surgery Specialist in Diabetes Medical Center of Hong Kong. Dr. Wilfred Mui talked about how obesity become a worldwide problem which affects many countries and is associated with diabetes mellitus, hypertension, and dyslipidemia which might increase the risk of coronary heart disease. He emphasised on how important it is to eliminate obesity in order to prevent the comorbidity, and one of which is the bariatric surgery procedure. Bariatric surgery is now considered as a well-established intervention for obesity, especially when medication and lifestyle modification did not work. Dr Wilfred also explained about the types of bariatric surgery, which is restrictive surgery and malabsorptive surgery

Restrictive surgery consists of intragastric balloon, laparoscopic gastric banding, and laparoscopic sleeve gastrectomy.

Malabsorptive surgery consists of laparoscopic gastric bypass and duodenal switch. Both laparoscopic gastric bypass and duodenal switch decrease hormonal response which will induce patients' satiety. Bariatric surgery is not indicated for all diabetic patients, where less obese patients are recommended for medical treatment and lifestyle modification, but if after a few years there are no significant changes and patients still have poor glycemic control, surgery is recommended. Bariatric surgery is indicated for patients with Asian Body Mass Index (BMI) above 37.5, Asian BMI above 32.5 with comorbidities, and for patients who failed less invasive therapies. astly, Dr. Wilfred explained the benefits of bariatric surgery. Bariatric surgery has a huge

impact on obese patients due to a possible long-term weight loss effect, that will help decrease mortality and increase patients' lifespan, lower the incidence of type 2 diabetes, induce insulin production, and decrease insulin resistance.

The next session was a lecture by dr. Wismandari Wisnu, Sp.PD-KEMD, an Endocrinology Consultant at Dr. Cipto Mangunkusumo Hospital, Indonesia, about What's New in Insulin Therapy on Type 2 Diabetes. The lecture was about 30 minutes, starting with data presentation about the prevalence of HbA1C level of type 1 and type 2 diabetes in the world and she stated how important it is to lower the HbA1C level in diabetic patients since it can reduce complications and reduces costs for the therapy. On the other hand, there is another challenge of reducing the HbA1C level, which is hypoglycaemia. The more complex the regimens, the higher the possibility of having hypoglycaemia.

The more complex the regimens, the higher the possibility of having hypoglycaemia.

Therefore, there is a need for new insulin formulation to overcome the challenge, called IDegAsp co-formulation. She explained its composition, how it works if it is injected, the pharmacological differences between insulin co-formulation and premixes, how to initiate and how to switch to it. She also stated that it is important to know the characteristics of the patient, which are the drug naïve and the insulin naïve patient. Last but not least, she showed us lessons learnt from Onishi and Phillis Tsimikas study for IDegAsp. The lecture session was continued with a discussion and QnA session between the participants and the lecturers. The discussion lasts for about 30 minutes. Participants were highly enthusiastic and active during the discussion. After the discussion, certificates were given to the lecturers

. Participants were also required to fill in the post test via Google Form to test their knowledge after the webinar session ends. Following the end of the discussion was the announcement of the World Diabetes Awareness Month Competition's Winners. For the Scientific Paper Competition, the 1st winner is Vincent Kharisma Wangsaputra, et al. from AMSA Indonesia, with the title: "Dissecting the Association of Glycated Albumin with Cardiovascular and Renal Outcomes as An Effort in Putting the Brakes on Diabetic Complications: A Systematic Review and Meta-Analysis". For the Public Poster Competition, the 1st winner is Ade Gautama, et al. from AMSA Indonesia, with the title: "Healthy Baby-Happy Mommy, Diabetes-free BOBA for You and Me!". Lastly, for the Online Social Campaign Competition, the 1st winner is Devesh Chandra Pandey, et al. from AMSA India, with the title: "Stop the Silent Killer". All winners presented their works after the announcement.

The AMSA International Webinar series is available to watch in the AMSA International official YouTube channel. We really hope that this webinar can provide deeper knowledge for members of AMSA International, especially on management for type 2 diabetes.

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AMSA INTERNATIONAL MASTERCLASS

AS MEMBER OF AMSA, YOU MIGHT HAVE THESE QUESTIONS IN MIND:

- **HOW CAN MEMBERS BE MORE PRODUCTIVE IN AMSA?**
- **WHICH AMSA ACTIVITIES CAN MEMBERS BE INVOLVED IN?**
- **HOW CAN I HELP MY CHAPTER GROW AND DEVELOP?**

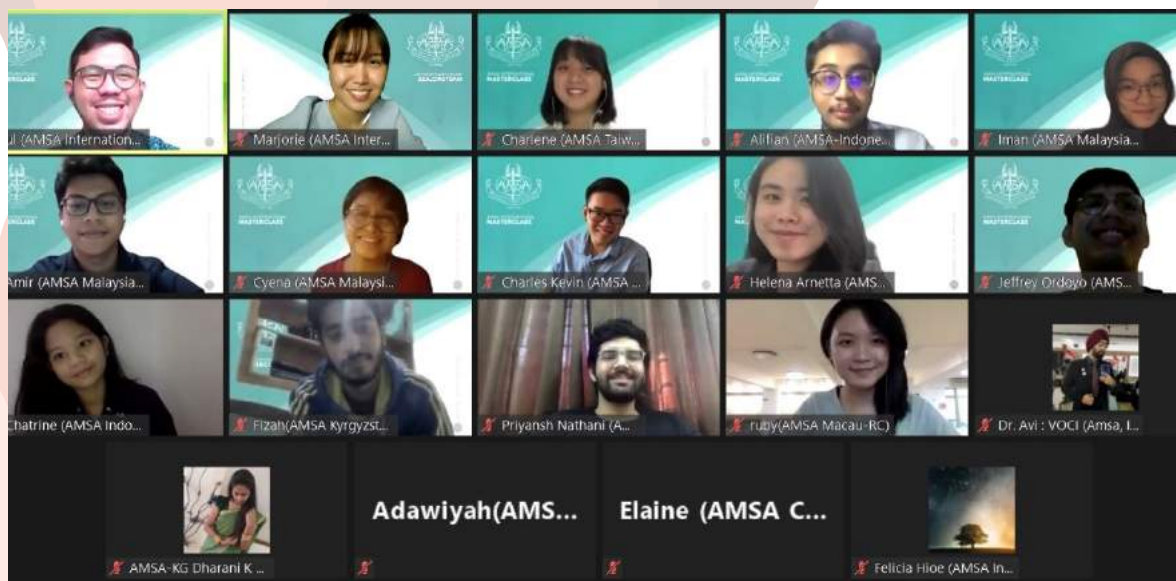
To answer these questions, AMSA International made a programme called AMSA International Masterclass. This program was developed by the Directors of Membership and Development which aims to provide an avenue for Members to develop their respective members. The programme features a series of training sessions encompassing the different subsidiaries of AMSA International, and the goal of each session is to equip participants with the basic knowledge, skills, and attitudes that all Members of AMSA International must possess. The sessions occur monthly and are conducted by the Executive Committees.



AMSA International Masterclass was opened by a session entitled “Organising an AMSA International Conference” on 31 October 2020, and continued by a session entitled “Managing Membership in AMSA” on 7-8 November 2020. Both sessions invited panelists that shared their expertise in the respective fields by providing their knowledge and experience in handling issues related to conferences and membership.

This sustainable program will also involve the Executive Committee to help chapters to develop knowledge, skills, and attitudes related to the specialty. The next session of AMSA International Masterclass will be provided General Secretary, Directors of Publication and Promotion, and Director of Information and Technology in 28-29 November 2020. For details of the next session, please stay tuned to our Instagram account, as we will update the info about AMSA International Masterclass frequently.

Notes: For photos, it might be taken from this post: https://www.instagram.com/p/CGcTZ9tn_EG/?igshid=1sk3mci0r7m8v



**MUHAMMAD MAULANA
WILDANI
DIRECTOR OF MEMBERSHIP
AND DEVELOPMENT
AMSA INTERNATIONAL
2020/2021**



AMSES PRESENTS

A BEAUTY ON IT'S OWN!

AMSEP - A well-known and I must say, the most anticipated, subsidiary of AMSA International where medical students from all parts of the world gather to celebrate each other's national differences, from academics, socio-cultural and charitable aspects. This year, AMSEP goes by the phrase "AMSEP Is One" to remind us that despite the differences in the education system and the amazing culture, we should still identify as one and not leave anyone else behind.

Over the years, AMSEP has expanded across continents with a myriad of exchanges and this year, she has built remarkable ties with European Medical Students' Association (EMSA) and Federation of African Medical Students' Association (FAMSA) with eight and five ongoing exchange programmes respectively.

In light with the COVID-19 pandemic that has affected us worldwide, it has led us to the attention to suspend all physical exchanges as travel restrictions have been recently implemented. However, as we continue to strive in virtual sustainability, we aspire to venture further in creating exciting memories together. Hence, virtual exchanges are currently being held in the comfort of our homes and this undoubtedly brings the best out of AMSEP, once again.

As the Director of AMSEP International for this tenure, I would like to take the opportunity to put a strong emphasis on the community service pillar.

This again, strongly correlates with the phrase “AMSEP Is One” as we do not exclude those in need, by the action of contributing and giving back to the society. Despite the pandemic, charitable activities are still taking place via crowdfund activities and publicising joint movements on social media contents.

AMSEP is still having high hopes on sustaining the nature of an AMSEP – to be held physically, so we look forward to see each other in person when the world gets healthier. Till then, let us all continue to seek for knowledge, to take noble actions and to establish everlasting friendships. Viva AMSEP!



VIRTUAL AMSEP INDONESIA – MALAYSIA (JULY 2020)

VIRTUAL AMSEP THAILAND – INDIA – MALAYSIA (JUNE 2020)



DAVYNA ABYSHA GUNASEGHARAN INTERNATIONAL DIRECTOR OF AMSEP 20/21

ASIAN MEDICAL STUDENTS' ASSOCIATION PUBLIC HEALTH (AMSA PUBLIC HEALTH)

Asian Medical Students' Association Public Health (hereinafter referred to as AMSA Public Health) is a functional subsidiary of AMSA International, with the purpose to uphold and maintain the public health virtues (Action philosophy) of AMSA International. The subsidiary has been known to liaise through inter-organisational partnerships to discuss pressing health issues. The subsidiary generally functions to coordinate and promote public health activities intended for further development of AMSA International at chapter level, and global health initiatives at international level.

AMSA Members have actively contributed to the health and well-being of the community, via various programmes, including but not limited to AMSA Community Service (AMSACS) Programme. AMSA Community Service Programme was adapted from the AMSA Community Service Ideabook of AMSA Malaysia in February 2018. The programme was built with a mission to build inclusive and healthy partnerships as well as support and empower medical students to become contributing members of our community. Working together, medical students learn how to serve the community productively with partners, across the country and around the world in settings that are often unfamiliar and challenging. AMSA Community Service Programme has been designed on the values of compassion, creativeness, diversity, excellence, integrity, leadership, professionalism, respect, responsibility, and teamwork.

AMSA International has regularly sent delegations to Global Public Health Conferences & Events, some of them being WHO Regional Committee Meeting for South-East Asia, WHO Regional Committee Meeting for Western Pacific, and also organises pre-orientation sessions for the delegates followed by post-conference reports.

The Director of Public Health (DoPH) of AMSA International is the utmost position in the Public Health subsidiary, governing the hierarchy. The National DoPH of respective chapters have the responsibility to assist the DoPH of AMSA International at chapter level and initiate local public health advocacies. The DoPH International along with the National DoPH aims to bring together the medical students around Asia, Asia-Pacific & beyond to work together around various focus areas concerning Global Public Health and contribute towards improving the health & wellbeing of the surrounding community in general and society as a whole.

We hope to bring more opportunities for our members concerning public health, raise awareness, and empower our members to advocate for global health issues and work with interdisciplinary collaborations for action.

Khushman Kaur Bhullar
Director of Public Health
AMSA International
2020/2021



JAMSA: A NEW TENURE, A NEW BEGINNING

Journal of Asian Medical Students' Association (JAMSA), a legacy of AMSA International since almost a decade, makes AMSA unique for having its own indexed student led biomedical research journal. With the ISSN No. - 2226-3403, JAMSA is currently indexed in Google Scholar, Ulrichsweb, IndexCopernicus and GaleCengage Learning. Editorially independent, JAMSA offers AMSA members a chance to gain experience as a reviewer as well as contributing in the editorial proceeding and journal management.

With the mission of revolutionising student-led research, JAMSA proudly publishes student research articles without any publishing charges, giving medical students and your researchers a platform to gain international recognition across 30+ countries. Focusing on the pillars of Knowledge, JAMSA invites all students to submit their research work to us in the form of Original articles, Systematic or Narrative reviews, Meta-analyses, Case Reports, Letters to the Editor and Commentaries/Perspectives and not only get a chance to improve your work through the opinions of our exceptionally experienced reviewers, but also stand a chance to have the article published in JAMSA read across Asia, Asia-Pacific, and beyond.

JAMSA also focuses on spreading Knowledge about research and publications among undergraduate students.

To help budding researchers polish their skills into budding scientists, JAMSA will be re-launching the legacy of its Research Contest this year. Bringing to you global recognition along with exciting prizes accompanying a chance to get published into JAMSA, the research contest will be an open themed competition accepting submissions in all categories. For more details, follow JAMSA on Facebook, LinkedIn and Twitter to stay tuned for regular updates.

That's not all; JAMSA is excited to bring to you its very own Research Awareness Social Media Campaigns and JAMSA Journal Club Meetings. Encouraging international interactions and friendships, JAMSA will soon begin monthly awareness sessions either as interactive campaigns or as journal club meetings to promote peer-based learning and make members of AMSA equipped with all possible tools and techniques to conduct and publish high quality research.

Don't forget to read our latest issue at jamsa.amsa-international.org and follow JAMSA on Facebook, LinkedIn and Twitter for more updates on all these exciting opportunities.

Oshin Puri
Chief Editor
Journal of Asian Medical
Students' Association
AMSA International 2020/2021



UPCOMING AN INTERNATIONAL EVENT



EAMSC

**MMSA
ANNUAL**

2021

MAINTAINING

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GMT (+8)

Communication is the heart of all our interactions. It is the way we connect with everyone around us, a symbolic exchange of shared meaning. Health communication is a special branch of communication and deals with communication promotional health information with the purpose of improving health literacy and ultimately influencing personal health decisions.

Health communication affects every aspect of health from prevention, management and control of disease progression to prevention of recurrence. Because it is such an expansive field, there are several areas of interest that can be explored. These include health education and literacy, risk communication, advocating for health policies, and improving patient and provider communication.



This January, EAMSC 2021 Communication in Healthcare: Sending the Right Message will be hosted by AMSA Philippines. The conference will span a total of 6 days from 5 to 10 January 2021. During the conference, the aim is to emphasise the importance of proper communication and to educate the delegates on the different communication strategies present. This conference will serve as an avenue for experts in health communication to share their knowledge with future doctors. The conference comprise of three main segments - Academic, Cultural, and Social.

Get the chance to listen to our experts from panel talks to parallel sessions. We also prepared a Designs Thinking Workshop where you can apply everything you have learned and go beyond the theoretical field. In this conference we hope that you not only learn but also have fun. Through cultural workshops we will bring to you our Filipino Culture. While we cannot tour you in our favourite tourist spots we will also feature some of our must visit places in the Philippines. Last but not the least, we have social sessions for everyone where you get to interact with your fellow delegates. This would include interactive games in each day of the conference. To know more about the specifics of the activities for each day, you may check out the Pre-Conference Booklet posted in our social media accounts. If you still feel want more, you may attend the Executive Board Meeting on 3 January 2020 where the bidding for EAMSC 2022 will be conducted. A Pre-Conference Session will be also conducted on 4 January 2020 and would comprise of fun filled activities. Moving forward with AMSA's three pillars of knowledge, action and friendship we can all work towards creating positive health changes and behaviour. We look forward to seeing you there!



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INFOGR



GRAPHICS

ANTIBIOTIC ALLERGIES

Diagnosis of drug allergies



Severity



Drug



Prior exposure



Anaphylaxis



SJS/
TEN



DRESS

Types of drug allergies (hypersensitivity reactions)



Type I
(anaphylactic)



Type II
(cytotoxic)



Type III
(arthus)



Type IV
(cytotoxic)

Drug Allergy Testing

- Tryptase
- Skin Testing
- Graded Dose Challenge
- Patch Testing
- In vitro Testing

Symptoms

- Light-headedness
- Skin rash
- Wheezing
- Fast heart rate
- Clammy skin
- Confusion/ anxiety

Caring for patients with allergies



Avoid unnecessary
microbials



Control
comorbidities



Vaccinate

Eat and Snack healthy food



Practice Yoga, Dance



Have a hot/soothing beverage



Listen/ Play Music



Go outdoors and exercise

Plan ahead, take breaks

11 Ways to Naturally De-stress



Sleep and get rest



Disconnect from social media

Gardening



Take care/ play with pets

Pamper yourself



YOUR HEALTH MATTERS 

PSYCHOLOGICAL IMPACT OF COVID-19 IN WORKPLACE



COVID-19 HAS MAJORLY INFLUENCED VARIOUS PSYCHOLOGICAL EFFECTS ON PROFESSIONALS OF VARIOUS WORK PLACES



UNCERTAINTY & FEAR
Am I the next one getting unemployed?

STRESS ABOUT FINANCE
My salary has been cut down by half



TOLL ON PRE-EXISTING HEALTH PROBLEMS
I anxiously align my table more and more now



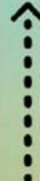
BANK



CHANGE IN ROUTINE
I need to get myself acquainted with online teaching



SAFETY AT WORKPLACE
I have to choose between safety and income



EMOTIONAL ISOLATION
We used to have lunch together



INSOMNIA
Long shifts are tiring



CHECKING NEWS MULTIPLE TIMES AT WORK

CONCERNED ABOUT THE HEALTH OF LOVED ONES
I work taking care of everyone's safety. I wonder if my own family is safe



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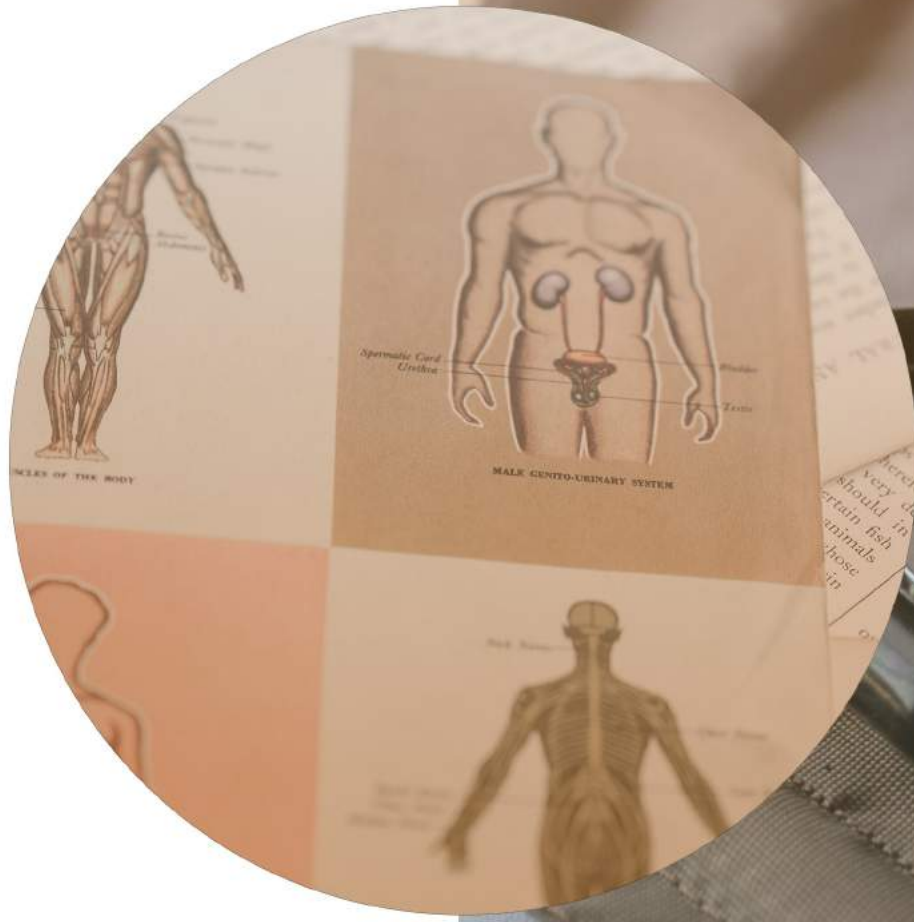
**"Psychological Impact of
COVID-19 in Workplace"**

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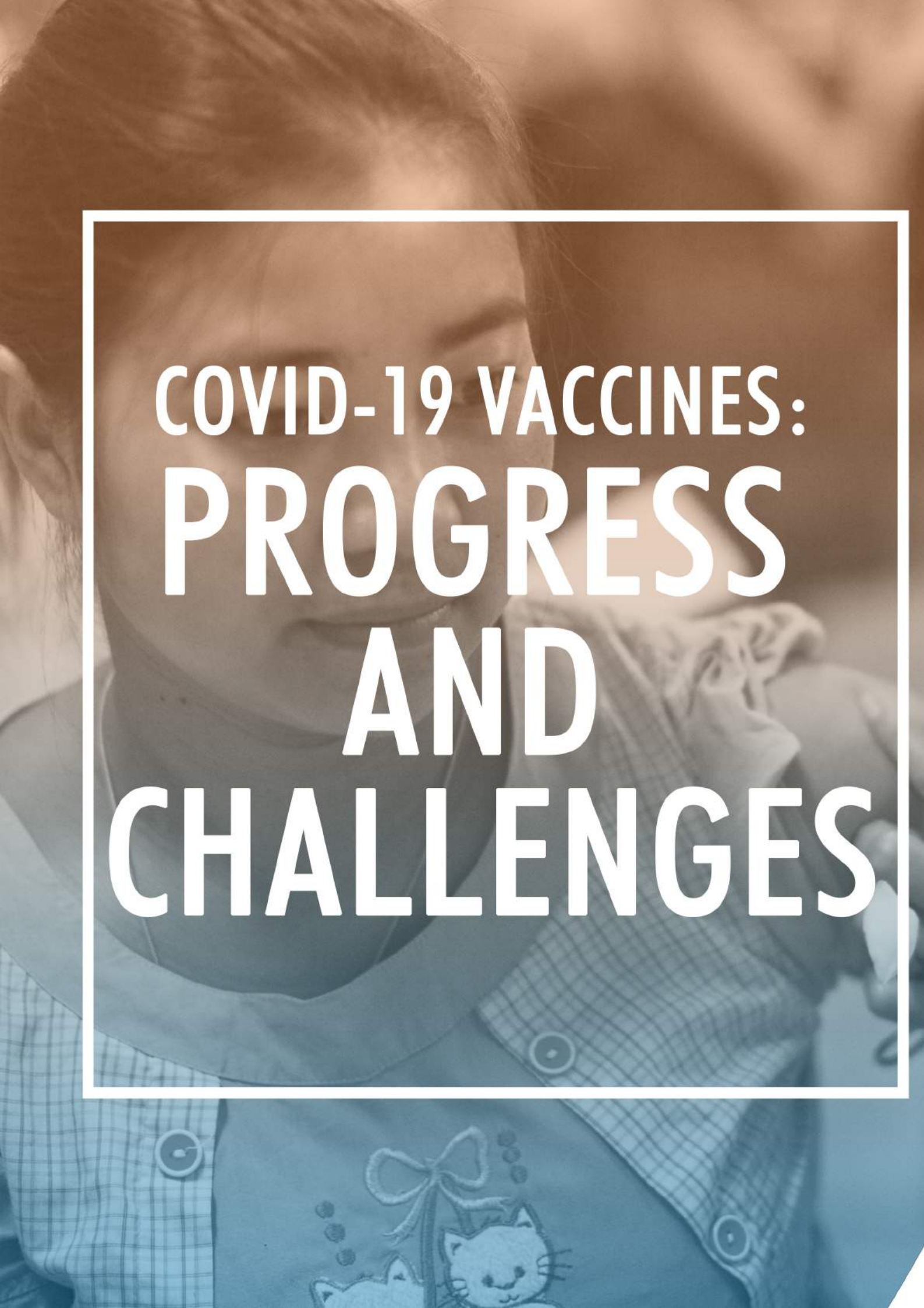
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HEAR

FROM THE

PERTS

A young girl with brown hair, wearing a blue checkered shirt with a cat embroidery, is looking down. The image is framed by a white border. The text is overlaid on the image in a bold, white, sans-serif font.

COVID-19 VACCINES: PROGRESS AND CHALLENGES



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When a single case of pneumonia rapidly escalated to 27 cases of severe viral pneumonia in just 18 days [1], the novel coronavirus 2019 (COVID-19) was discovered. The pandemic that stemmed from this virus has now engulfed over 200 countries with an estimate of more than 45 million cases and above one million deaths [2]. COVID-19 is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). At present there is no drug or vaccine available to specifically treat this infection, and prevention seems to be the most effective method of controlling the COVID-19 outbreak. Global efforts to locate effective treatments either in the form of drugs or vaccines are in progress. According to data collected by The World Health Organization (WHO), there have been 171 potential candidates for vaccines, out of which 156 are on preclinical trial phase while 45 are on clinical trials.

This article aims to summarise the major approaches towards the COVID-19 treatment, especially the challenges and progress in developing an effective COVID-19 vaccine.

Clinical Features and Diagnosis

The most common signs and symptoms associated with COVID-19 infection are similar to the typical pneumonia: mild fever, head and stomach aches, respiratory complications such as shortness of breath, sore throat, a loss in the sense of smell and taste, fatigue and muscle pain [3]. Observations from chest CT scans in affected individuals reveals that ground-glass opacity (GGO) is also a prominent characteristic of a SARS-CoV-2 infection [4]. The two types of diagnostic tests utilised for COVID-19 are RT-PC and serological tests. RT-PC is used to test the presence of viral nucleic acids while the serological tests functions by detecting the antibodies produced in response to the viral antigens [5].

Therapeutic Approaches

Currently there are yet to be FDA approved drug treatments for COVID-19. Undeniably, designing and developing novel drugs and vaccines for any disease are complicated and time-consuming. Therefore, present treatment solutions are mainly reliant on repurposing drugs which are used in treating other viral respiratory infections to alleviate symptoms.

Treatment with repurposed drugs:

Numerous drugs are being tested through clinical tri-

als for their ability to treat COVID-19 patients. Amongst them includes antivirals (lopinavir, ritonavir, favipiravir, ribavirin, and remdesivir), antimalarials (chloroquine, and hydroxychloroquine) and corticosteroids to name a few [6]. These drugs can be categorised into following four categories based on their mechanism of action [7].

Viral Protease Inhibitors

These are drugs that inhibit important proteolytic activity required for the replication of a virus by binding to its protease inhibitors. Studies have been conducted on Lopinavir, Ritonavir and Di-

sulfiram which concluded with unfavourable results.

Viral Nucleoside Analogs

The nucleoside analogues are similar to nucleosides that are naturally present in viruses. These agents selectively bind to replicating DNA chains and terminate the process. Research on **Favipiravir** and **Remdesivir** have demonstrated encouraging results both in-vitro studies as well as in clinical trials.

Virus-host fusion inhibitors:

This class of drugs inhibit the entry of viruses into the host cells. Various drugs in this category are already available in

Preclinical trials

- in-vitro and animal models

Phase II Clinical trials

- 100-300 volunteers
- Detailed assessment
- 2-3 years

Approval

- The Food and Drug Administration (FDA)
- Investigational New Drug (IND)
- The European Medicines Agency (EMA)

Phase I Clinical trials

- 20-50 volunteers
- Assessment of safe dosage and side effects

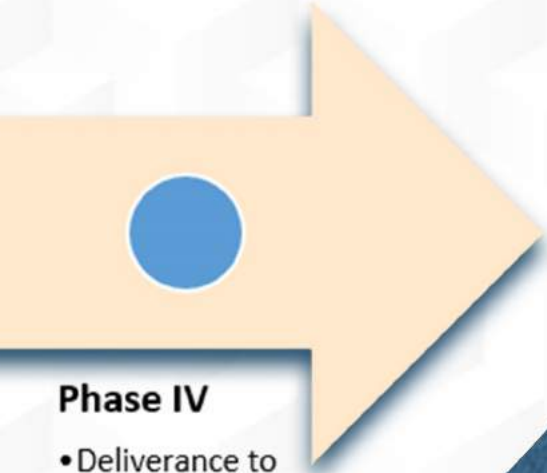
Phase III Clinical trials

- 3-5 years
- 3000-50,000 human subjects
- To study large scale effectiveness

the market. This includes Chloroquine, Hydroxychloroquine, Nitazoxanide, Arbidol, IDX-184, Sofosbuvir and corticosteroids which have all shown some form of effectiveness against COVID-19 in in-vitro and clinical studies.

JAK signalling pathway inhibitor

These agents inhibit several cellular immune responses by blocking the JAK/STAT pathway. The drug Baricitinib was studied in-vitro and was concluded to be effective against the SARS-CoV-2 virus.



Phase IV

- Deliverance to markets
- Strict monitoring on large-scale population.



Table: The types and details of COVID-19 vaccines currently under clinical trials.

Vaccine platform	No. of vaccines	Properties	Advantages	Limitations	References
DNA vaccines	4	SARS-CoV-2 DNA inserted and expressed in the host through plasmid.	<ul style="list-style-type: none"> • Can be rapidly developed • Low pathogenicity 	<ul style="list-style-type: none"> • Can be oncogenic • Low antibody titers 	[10]
RNA vaccines	6	mRNA of viral spike protein	<ul style="list-style-type: none"> • May neutralise the virus • May block the protein that aids respiratory tract infection 	<ul style="list-style-type: none"> • Can be unstable • May cause adverse reactions 	[11]
Replicating viral vectors vaccines	4	Live attenuated with genes of virulence removed	<ul style="list-style-type: none"> • Generates a life-long immune response • Most efficient against viral infections 	<ul style="list-style-type: none"> • Can become virulent again 	[12]
Inactivated virus vaccines	7	Heat attenuated viral or bacterial particles	<ul style="list-style-type: none"> • Low risk of side-effects 	<ul style="list-style-type: none"> • Low immunity after vaccination 	[13]
Non-replicating viral vectors vaccines	9	Attenuated or killed viral vector utilised to express SARS-CoV-2 proteins	<ul style="list-style-type: none"> • Strong post-vaccinal immunity with single-dose • Does not replicate • No virulence 	<ul style="list-style-type: none"> • Generates low/limited immune response 	[13]
Protein-based vaccines	13	Surface glycoproteins of virus	<ul style="list-style-type: none"> • Low side-effects 	<ul style="list-style-type: none"> • Risk of denaturation • May bind to non-specific antibody after denaturation 	[12]
Virus like particles (VLP)	2	Molecules that are similar to viruses but are not viruses	<ul style="list-style-type: none"> • Non-virulent • Good as vector for antigen delivery 	<ul style="list-style-type: none"> • Cannot be used for all virus types 	[14]

Vaccination against COVID-19

The development of a vaccine against COVID-19 is a complicated, cost-heavy, and time consuming process. It requires an understanding and research into the virus's genome, locating appropriate target sites, and then designing, manufacturing, storing and distributing the vaccine. However, the biggest challenge in the development of a vaccine is the numerous and rigorous clinical trials it has to pass through before it can be approved. This can take anywhere from 10-15 years and is a process where most drugs stumble and are eliminated. [8]

Candidate vaccines against SARS-CoV-2:

In the effort to contain the COVID-19 pandemic, many different strategies for creating vaccines have arisen. The majority of them are currently focused on using the S-protein of SARS-CoV-2 [9]. According to the data of clinical trials from WHO - ChAdOx1 (University of Oxford), Ad5-nCoV (CanSino Biological Inc./Beijing Institute of Biotechnology), Adeno- based (rAd26-S+rAd5-S) (Gamaleya Research Institute), Ad26COVS1 (Janssen Pharmaceutical Companies), mRNA-1273 (Moderna), 3 LNP-mRNAs (BioNTech/Fosun Pharma/Pfizer), SARS-CoV-2 rS (Novavax), mRNA-1273 (Moderna) and three vaccine candidates from Sinovac and Sinopharm have entered the phase III clinical trials. As of 29 October 2020, there are 45 candidate vaccines for COVID-19 which are currently undergoing the process of clinical evaluations and 156 candidates which are in pre-clinical evaluations [2].

Conclusion

Presently, there is no one exact drug which is able to treat COVID-19. However, healthcare professionals and researchers have actively sought to repurpose readily available respiratory drugs to alleviate symptoms in patients. The race to develop an effective vaccine is still underway with researchers actively utilising the genomics and proteomics of the SARS-CoV-2 virus to reach the ultimate goal of getting the COVID-19 virus under control.

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**HEALTH
ISSUES**
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Wellbeing
during
Pandemics

ASPIRE #32

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HEALTH CARE WORKER DURING PANDEMIC



As the Novel Coronavirus has reached a pandemic, the world has run to a crisis, the fear of getting infected has brought stress and anxiety to everyone. In this tumult, health workers are standing as a backbone to the nation. Everyone is concerned about the personal protective equipment and the need for the respirators, but no one has even thought about the psychological burdens faced by health workers.

In hospitals of Wuhan, frontline health care worker, and nurses, had to face psychological stress. The major crisis running to the health team is the lack of personal protective equipment. Without it, they would not only be vulnerable and infected but also infect their family members. About 3000 health care workers in China have been infected and at least 22 have died. Also, many reports of transmission to their family members had been reported. Stress has led most health workers to isolate themselves from their field of work and society and live with their families. Spend their leisure time safely. These stress factors include: ^{3 5}

- being away from their family members
- problems using the PPE (difficulty breathing, exhaustion, heat)
- not having rapid access to testing if they develop symptoms of COVID-19
- fear of the government looking into them and their family if they get infected, isolation from others, even family members, risk of getting infected
- fear of being removed from duty if they complain about their stress, and pressure to follow the protocols.

China mitigated its COVID-19 cases to a minimum within no time. The cornerstone to their success was managing stress and anxiety of health workers. They had many interventions, from providing separate room to the staff with online psychological help guidelines to making videos accessible to their family members. They were trained with different activities to help them relax and even psychological counsellors would regularly visit to check their status. It is not a short 100 m race but a marathon, and the key component to stick to this race is all about stamina.

“

From outside, thought they might seem well adjusted, deep inside, they are suffering.

AUTHOR:

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“It is not a short 100 m race but a marathon, and the key component to stick to this race is all about stamina.”

Our country should also focus on the stress and anxiety faced by the health workers and make strategies to minimise them. Training programmes that include certain standard protocols like hand hygiene, proper use of personal protective equipment (goggles, mask, hand gloves), instrument processing should be advocated.⁶ Healthcare associated infections, transmitted through hands, unhygienic practise has increased the mortality, morbidity rate to about 25% in developing countries, all due to the lack of simple standard precautions.⁶ Not all health workers get accustomed to working in such environments. For some, it might be their first time.

There are ways to deal with stress through preparedness:⁵

- Getting detailed information about the COVID-19
- Practice of proper use of PPE
- Taking decisions about triage, and
- Training to screen patients.

Ways to deal with stress during work include the following:

- Taking rest breaks timely
- Working in teams
- If needed, consultation with the supervisor
- Talking to colleagues' families
- Exercises to release anxiety, and
- Remove the feeling of being incompetent.

Health workers prioritise patients' health to their needs. From outside, though they might seem well adjusted, deep inside, they are suffering.

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WELLBEING DURING THE PANDEMIC



In such a challenging, troublesome, undesirable, obnoxious situation that we are hit with, due to the 2020 pandemic, not only is our health necessary, but our wellbeing in mental health, finance, and education are too. The struggle in educating society, as well as the education at a student level, is real.

Online education programme is a safe choice for the student level. But when it comes to educating the society about safety measures related to the pandemic, it is a big challenge as it demands communication which is lacking in most countries' people, which may be due to the financial-related challenges that people are facing. Broadcasts at TV or radios or any other online services have connected many people, yet some are still left uneducated. Before the devastating days of the pandemic, meetings could have been held in places to educate the non-educated but as per the present scenario, this calls for a big fight ahead.

Charitable funds could reach out to the people in need, the knowledge about free government facilities could be made more reachable to the people who are being laid off because of the pandemic. At this point of time funds could be raised to ensure that the local uneducated people are at least provided with the



basic safety measures and enough funds to keep up their daily expenses.

There was also the never-ending list of challenges following mental health issues. The pandemic has lead us to acknowledge the fact that time stops for none, but on the other side, our life has given us a red alert which says, STOP! The quarantine which followed the 2020 pandemic has brought us plenty of time cut off from our previous daily schedule and often followed by no working days, which in turn is followed by 'overthinking' which has affected the mental state of many teenagers during this pandemic.

The cause being plenty of time provided with no schedule at all, followed by the day to day life, family, relationships, and other problems of an individual. Also, people with no permanent jobs have found it difficult to cope with their daily needs. This has also caused mental pressure. People ending up in depression due to overthinking need to be taken care of.

Stress during an infectious disease outbreak has also built up fear and worry, which has lead to disturbance in sleeping patterns. In this hard time, emotionally strong people should be our stress relievers. Helping others to cope with their stress by providing social support and listening to the person's matters would help.

Health-related issues are often caused by people not knowing the safety measures related to the pandemic. Cover up your nose and mouth with a mask. Avoid close contact with the person who is sick. Limit social gatherings. Clean and disinfect frequently touched objects and surfaces. Sanitise your hands frequently. Dealing with such a challenging phase requires unity of people nationally and internationally.



DON'T

LET

DARKNESS

GET

INTO

YOU

DEALING WITH COVID-19

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This year, COVID-19 has been a familiar word. It has been almost ten months since lockdowns were imposed in numerous countries, since we have been encouraged to stay and work from home, and since a new normal have swept into our lives: face masks, hand sanitiser and social distancing. According to WHO, as of 4 November 2020, the Government of the Republic of Indonesia has reported 421,731 persons with confirmed cases of COVID-19. Being human in the midst of this pandemic, undoubtedly, there will be times when panic, fear, or even a strain of hopelessness will creep in and conquer our minds. Panic at the knowledge that COVID-19 can spread through contact, fear at the possibility of contracting COVID-19, hopelessness at the feeling of being unable to reign in this virulent disease, increased racial tensions and, of the daily rhythm of life overthrown. Combining all these feelings and throwing other factors like isolation, uncertainty and job deployment or study suspension, our mental health is hugely challenged.

According to WHO, mental health is more than just the absence of mental disorders or disabilities. In 2017, an estimated 11.2 million adults in the U.S., or about 4.5% of adults, had a severe psychological condition, according to the National Institute of Mental Health (NIMH). Everyone has a risk of developing a mental health disorder, no matter their age, sex, income, or ethnicity. In the presence of COVID-19 and from many uncertainties, many might struggle to cope with the changes. Some might feel empty, sad or even apathy. Some might simply lose interest and feel sluggish daily. Some might be in a constant state of anxiety, stressed and worrying. Our mental health has taken a blow... However, do keep in mind that as we are all unique and we have our own coping mechanisms. It is really important to learn to accept our feelings, to try not to judge ourselves harshly based on what others are thinking or doing and to love ourselves more in this period of uncertainty. We are not alone, and it is okay to not be okay. If there is something that you are struggling with, read on for some tips on dealing with your feelings in lockdown.

First, focus on what you can control. Ensure that you maintain the proper hygiene, do some things you love and talk to people you trust. Remember, you can only do your best with what you have today so try to keep yourself living in the moment. Also, try to retain a positive outlook on life. For example, in this pandemic, we may be afraid and upset even, at the curveball life has thrown at us. However, looking at this from the flipside of the coin, we are now able to spend more time with our family, to have more time to pursue our hobbies and interests that we have set aside in the past, and to just take some time off for ourselves. Moreover, as social beings, having to stay at home without meeting friends and having to keep a distance from other people sometimes might make us feel lonely. As such, do pick up the phone and give your family members, close friends or long-distance relatives a call.

On top of that, we can work to establish a healthier lifestyle during this lockdown period. Try to retain some sense of normality by continuing our daily activities like working and studying even though from home. Set aside set times for working, eating, and exercising to better help manage the day. Moreover, there are various activities that could help to keep us active and healthy at home such as HIIT workouts, meditation, and yoga to name a few. By exercising, eating healthier food, getting enough sleep, praying and through continuing our daily activities, we will be physically and mentally more active and our mood will be better. Finally, do not forget to be gentle with ourselves and to talk or reach out for help when things get overwhelming.





To sum up, we should still follow the protocols and remain vigilant against COVID-19. However, maybe in some ways, the existence of the health protocol might place unnecessary stress on us, leading to mental breakdowns. However, there are plenty of things we can do and people and places we are able to get more help and support with if we are struggling with our mental health. If possible, do remain positive, support each other, change our lifestyle, and be gentle with ourselves during this pandemic. And, we have to remember that what we are all ultimately in this together.

play games to fight hunger

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A shout out to the World Food Programme

We all have felt ravenous at times, like while waiting for food at the restaurant and in the middle of a long movie night. We all know the experience of that pinch in the stomach. But, take a moment to realise that 690 million people around the world go to bed without a speck of food in their stomachs every night and 1 in every 3 people is malnourished. This is the moment you feel, you wish there was something you could do. That's exactly what this article will help you with. While throwing light on the history of World Food Day (WFD) and introducing World Food Programme (WFP), let me tell you how you can be a part of curbing the hunger.

What is World Food Day?

WFD is observed by all the member nations of UN worldwide to memorialise the day of founding of Food and Agricultural Organization of United Nations (FAO), on the day of October 16, every year. The theme for WFD 2020 is 'Grow, Nourish and Sustain together', the cornerstone of which, is preserving access to safe and nutritious food in the course of fighting COVID-19.

What is WFP?

United Nations World Food Programme (WFP) is the world's largest humanitarian organisation and the recipient of Nobel Peace Prize 2020, that is combating hunger worldwide and delivering food assistance in emergencies.

18000+ heroes are operating every day in spite of the threats of COVID-19, in the complex areas suffering from wars, famines, floods, and whatnot.

Achievements of WFP:

WFP has been aiding about 100 million people worldwide in 88 nations. They have 5500+ trucks, 30 ships, and 100 planes functioning day to day. WFP markets with small-scale farmers from developing countries, that saves time and money on transportation and helps local economies grow. About 127,000 hectares of land and 7,000 hectares of forest were planted by initiatives under WFP. It has delivered around 4.2 million metric tonnes of food in 2019. More than 50% of beneficiaries of its favours are women.

Zero hunger—the global goal to end hunger by 2030

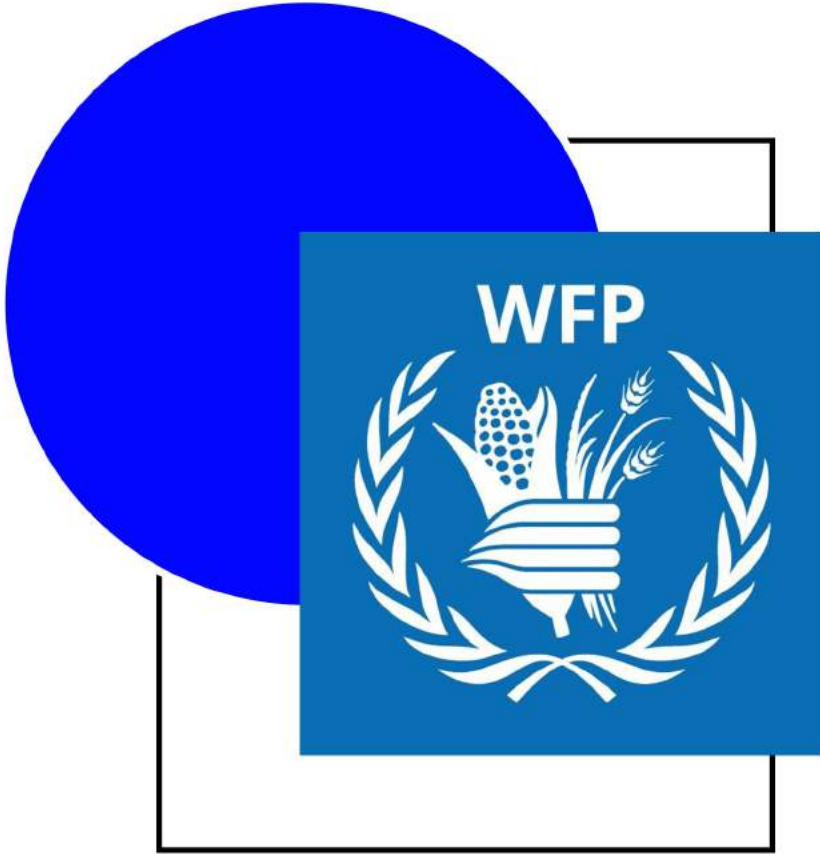
This project pledges to end hunger, achieve food security, improve nutrition and promote sustainable agriculture. This happens by:

- Putting the neediest first by prioritising areas like South Sudan, Yemen, Syria, Sahel, and Nigeria.
- Designing efficient supply chains.
- Reduce food waste that saves US\$1 trillion annually.

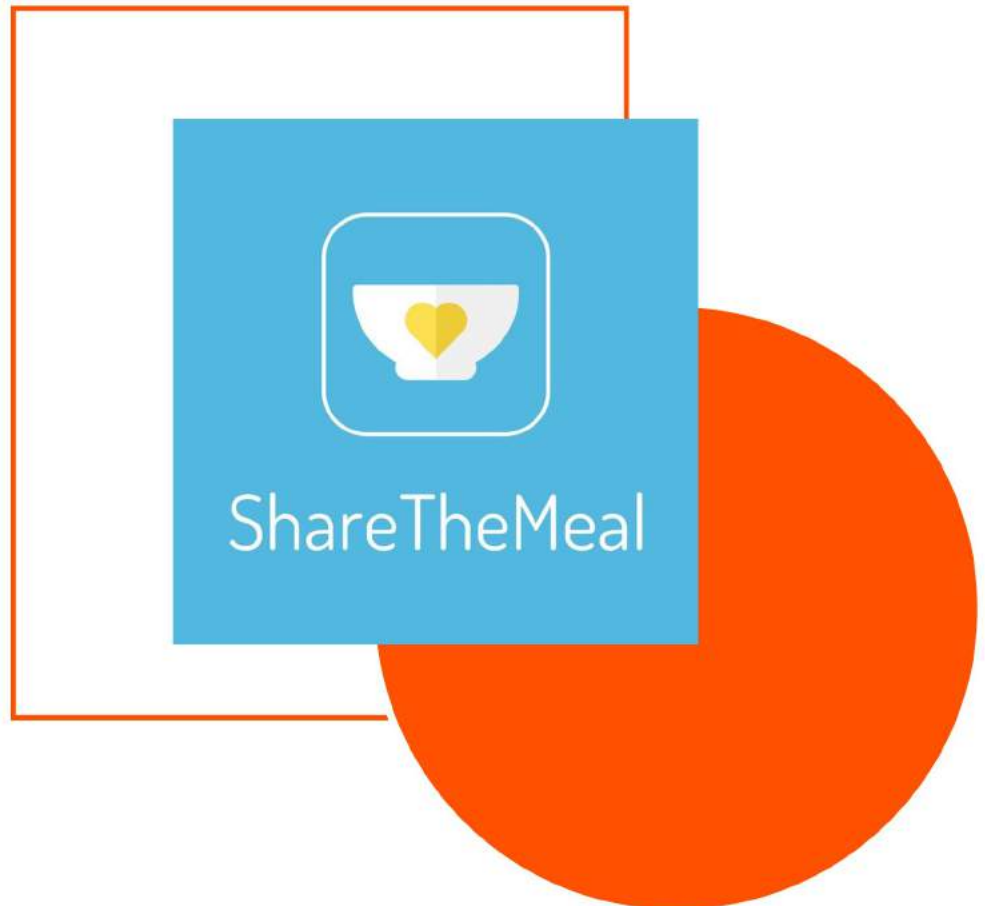
This is how you can pitch in:

1. Share The Meal: is an app from the WFP that enables you to “share your meals.” With US\$0.80, you can feed one child for a day. You can donate together with friends and family and follow the progress to see how your money was put to use.
2. Free rice: is a quizzing app, where you donate 5 grains of rice for every correct answer. Participate in cool challenges with friends.
3. Food force: is an educational game where you participate in food distribution missions in areas affected by climatic conditions.

WFP continues to conquer hunger while dealing with myriad hassles. Giving a big shout out to these warriors, let's terminate the hunger together.



Zero Hunger 2030



Medical Ideology: A Double-Edged Sword



Written by:
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Antibiotics are lifesavers. They have been used since the late 1940s to treat infections caused by bacteria. Since then, they have developed by leaps and bounds. Antimicrobials are not mystic pills that heal every ailment. Yet when used at the right time, they can be the difference between life and death. However, a double-edged sword cuts both ways. The colossal success of antibiotics has been assuaged by the evolution of antibiotic resistance. The bacteria become invulnerable to the drugs meant to destroy them.

When a child is ill, the parents are frantic and morose. Even if it is just a common cold or a sore throat, it makes the child cranky and restless. This is most likely followed by a visit to the paediatrician where the parents expect to come out of the office only with a prescription in hand. But the doctor often examines the child and perhaps some tests later deems antibiotics unnecessary. Many parents are surprised by this decision. The all-powerful antibiotics have been saving lives, easing suffering and serving mankind faithfully for generations. Nonetheless, present doctors are not as quick to reach for their prescription pads as they once were. In recent years, they are realising that there is a flip side to choosing antibiotics - if these medicines are used when they're not required or they're taken incorrectly, they can actually pose a greater risk to public health.

A rather well-known example - the carbapenemase secreting bacteria christened as "New Delhi Superbug" which had shocked the world by spreading to almost 100 countries. These bacteria were resistant to not only the regular antibiotics but also the ones used as the last resort to treat bacterial infections such as carbapenems. This incident had caused alarms to be raised all over the globe advocating for increased emphasis on careful antibiotics usage.

In light of such troubled circumstances, 2020 saw the emergence of the COVID-19 pandemic. There has been an unprecedented escalation in the use of antimicrobials as they are the weapons used in the war against the deadly invisible virus. Initially, the World Health Organization (WHO) had recommended the use of empirical antibiotics against the COVID-19 pneumonia. A biphasic pattern was identified regarding the consumption of amoxicillin/clavulanate and broad-spectrum antibiotics within the first 4 months of the pandemic. However, recent increasing reports of antibiotic overuse during these times has cautioned the global healthcare system.



This has led to the de-escalation of the use of antibiotics for treatment of COVID-19 and its consequent discouragement by the WHO.

Multi Drug Resistant (MDR) microbes are on the rise and it is up to us, the medical fraternity to take a stand against this issue. An effective stewardship team must be formed in every hospital in close collaboration with the staff of the microbiology laboratory, hospital epidemiology, and administration to implement a well-functioning programme. The central theme of this stewardship also includes prevention of antimicrobial overuse, misuse, and abuse. The ultimate goal is to reduce antimicrobial resistance by following such protocol and application of valid research. Infection control procedures coupled with local antimicrobial resistance guidelines will be of immense value. The World Antibiotic Awareness Week is thus observed from 18 to 24 November to inculcate the safest therapeutic strategies for not only our present patients but also our future patients.

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ARTIFICIAL INTELLIGENCE AND COVID-19

The first report of suspected COVID-19 found in Wuhan, China was received by WHO on December 31, 2019. Data scientists using Artificial Intelligence (AI) system warned about the spread of virus multiple times. The prediction comes true and COVID-19 spread all over the world. Coronavirus was first discovered in humans in 1960. But to this day, scientists cannot invent the vaccine. WHO declared COVID-19 as a global pandemic around 22.3 million people are infected and about 784 thousand people are already dead [source: WHO]. Scientists have been using AI to trace the outbreak of real time and using data analytics to tell in advance where the virus might surface next and to develop on effective response. This, if done diligently, can save lives.

Artificial intelligence technology has the potential to improve the planning, treatment, and reported outcomes of the COVID-19 infected patient being an evidence based medical tool.

Some of the main applications of AI in COVID-19 pandemic include the following:

1. Early Diagnosis of the infection:

Artificial intelligence can quickly analyse irregular symptoms. It helps to diagnose COVID-19 cases through useful algorithms. It is helpful for the diagnosis of the infected cases with the help of Medical Imaging Technology like CT scan, MRI scan of human body parts.

2. Monitoring the treatment:

AI can automatically monitor and predict the spread of virus. It has the capability of providing day to day updates of the patients and also provide solutions to be followed in COVID-19 pandemic. AI can help analyse the level of infection by hot spots and contact tracing of the individual and also to monitor them.

3. Development of drug and vaccine:

This technology is used in speeding up drug testing in real time where standard testing takes plenty of time and helps to accelerate this process significantly, which may not be possible by a human. AI helps in developing vaccines and treatments at a much faster rate than usual. It has become a powerful tool for diagnostic test design and vaccination development.

4. Reducing the workload of healthcare workers:

Due to sudden increase in the number of COVID-19 patients in this pandemic, workload of health workers increased a lot. Artificial intelligence reduced this workload of health workers. It helps early diagnosis and provides treatment at the early stage. AI can put impact on future patient care and address more potential challenges which reduces the workload of doctors.

5. Prevention of disease:

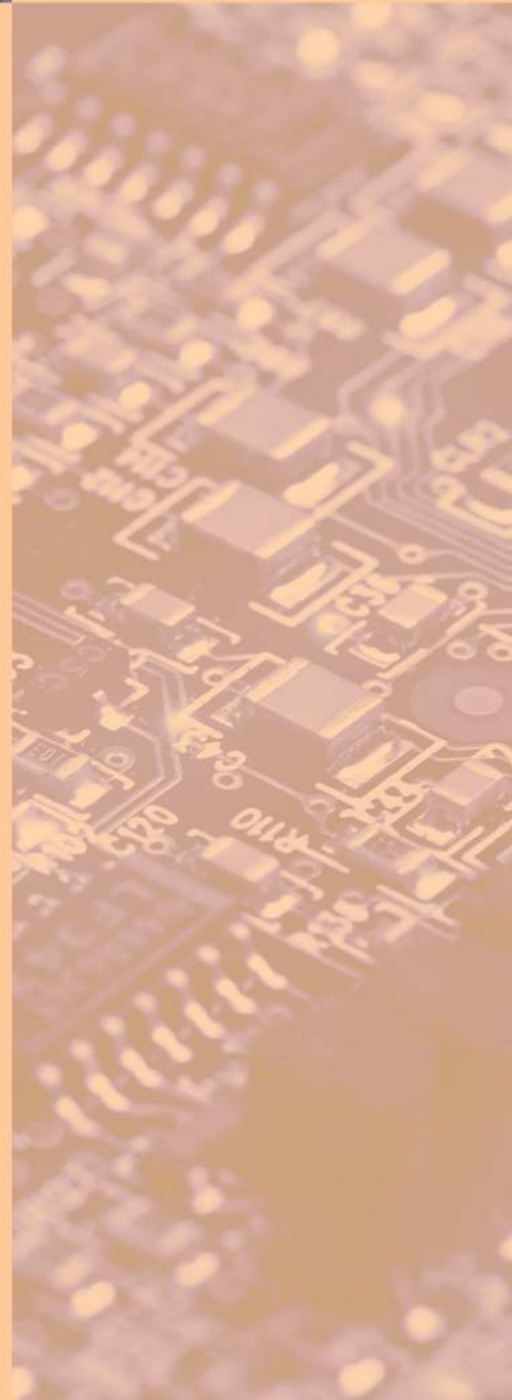
Artificial Intelligence can provide updated information which helps in the prevention of this disease. It can predict the probable sites of infection, the influx of virus and it identify traits causes and reasons for the spread of infection. It can provide a preventive measure and fight against COVID-19. Artificial intelligence plays a vital role in providing more predictive and preventive health care.




From above we can highlight the following:
Artificial intelligence is an innovative technology which is helpful to fight the COVID-19 pandemic.

It is helpful for screening, tracing the current and future patients.

Artificial intelligence is used for the development of drugs and vaccine and reduction of workload of health care workers.



The background features a close-up, angled view of a green printed circuit board (PCB) with intricate silver and gold traces. The image is overlaid with a semi-transparent orange vertical bar on the left side and a semi-transparent blue horizontal bar across the middle. The text is positioned in the lower right quadrant, overlapping the blue bar.

So, we can say, artificial intelligence is an upcoming and useful tool to identify early infections due to coronavirus and also helps in monitoring the condition of the infected patients. It can significantly improve treatment consistency and decision making by developing useful algorithms. AI is not only helpful in the treatment of COVID-19 infected patients but also for their proper health monitoring. It can track the crisis of COVID-19 at different scales such as medical, molecular, and epidemiological applications. It is also helpful to facilitate the research on this virus by analysing the available data. AI can help in developing proper treatment regimens, prevention strategies, drug and vaccine development.

The coronavirus pandemic has been the scourge of mankind for this decade. With no significant treatment protocol or vaccination present for the coronavirus, it has led to physicians using a cocktail of random antibiotics to save their patients, with varied results. Unfortunately, this method of treatment could prove to be more harmful in the long run.

The WHO in their current treatment protocols have strongly advised against giving antibiotics to COVID patients unless they have superimposed bacterial infection. Yet, a prospective observational study conducted disprove that. The study found that antibiotics were initiated on admission in 87/147 (59%) patients. Of these, 85/87 (98%) prescriptions were empiric with the common indication being concern for community acquired pneumonia. A retrospective statistical study found that cephalosporins, macrolides, quinolones, and sulfonates showed a slightly negative correlation tendency with mortality, whereas penicillin showed a slightly positive correlation with mortality.

This indicates that despite their being little benefits to using antibiotics, the medical community has continued on giving these drugs to COVID afflicted patients.

This random usage leads to patients getting superimposed nosocomial infection which increases the duration of hospital stay. A clinical surveillance of Clostridium difficile (CDI) for all laboratory-confirmed COVID-19 patients treated at any of the hospitals belonging to Detroit Medical Center found 9 patients who were infected with CDI and COVID-19. Another issue with a co-infection of C. difficile and coronavirus is that both of the disease present with the early symptoms of diarrhea and it is easy to underdiagnose either of the infections or the efficacy of C. difficile treatment. Thus, the antibiotic mismanagement has led to a decreased quality of patient treatment.

“Despite their being little benefits to using antibiotics, the medical community has continued on giving these drugs to COVID afflicted patients.”

**THE
LOOMING,
UNNOTICED
DANGER IN THE
WORLD OF
COVID-19**

The pandemic has brought to a sudden halt treatment of other disease (both infectious and non-infectious). One disease whose treatment has been suddenly stopped is tuberculosis.

Tuberculosis, a disease that has already shown to be extremely resistant to antibiotics (MDR-TB and XDR-TB), could now cause even more havoc thanks to the pandemic. A new modeling study, conducted by the Stop TB Partnership in collaboration with the Imperial College, Avenir Health, Johns Hopkins University and USAID, finds that the global lockdown has led to minimum of 5 years of progress lost and 6 million more people ill with TB. Hence in this age of COVID-19, we should not forget the guiding principles of the antimicrobial stewardship. By forgetting, we might end up creating a silent, hidden menace which will trouble an already overburdened healthcare system for centuries to come.

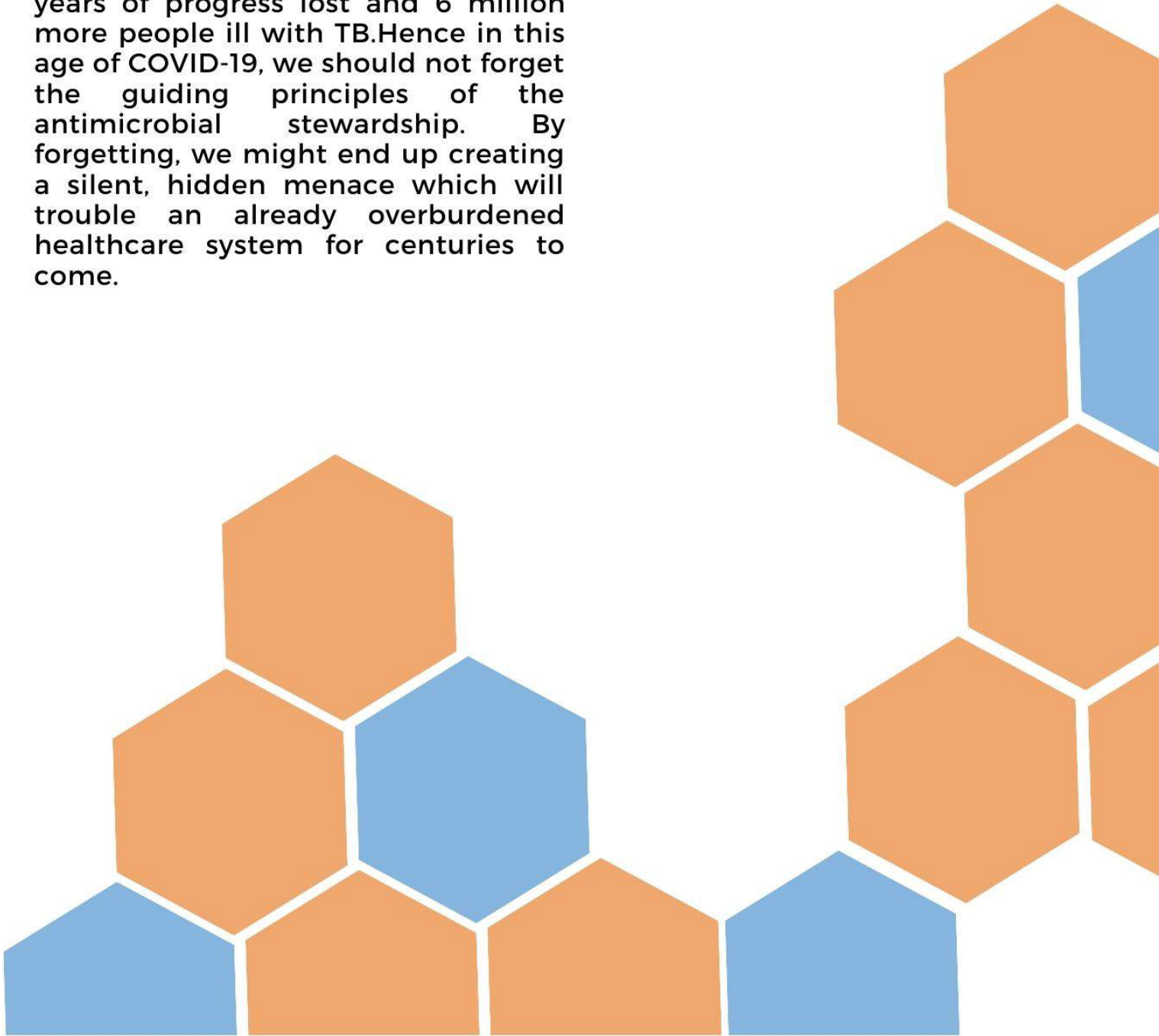


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WHAT HAS THE PSYCHOLOGICAL IMPACT OF COVID-19 BEEN ON HEALTHCARE WORKERS IN CHINA?



The current COVID-19 pandemic has resulted in more than 500,000 deaths so far, as of March 2020 (1-3). Spreading to at least 124 countries and territories, this pandemic has placed extraordinary and continuous demands on healthcare systems and public health providers.

A lack of resources, such as PPE and ventilators, are commonly seen around the world (4-13) and this has added to the pressures healthcare workers are currently facing (10, 14). A culmination of multiple factors had resulted in many being affected by mental illness during this time (15-17). As of yet, there is still a significant amount of research which needs to be carried out to show the true impact of this pandemic on healthcare workers and the functioning of health services (18).

It is important that this research is undertaken so that the mental health of hospital staff can be addressed soon, allowing them to provide a higher quality of care and reduce medical errors.

As the outbreak of the disease is from Wuhan, China, most of the latest research relating to the impact of COVID-19 which have been conducted so far are related to that region. Therefore, this article aims to acknowledge the psychological impact COVID-19 has had on healthcare workers in China. The factors have contributed to their declining mental health and their current coping strategies.

Medical staff in respiratory, emergency, infectious diseases and ICU departments have displayed higher rate of fear, anxiety and depression than non-clinical staff in hospitals but not in the front line (48). With an urgent health catastrophe present, medical workers have to deal with many psychological issues like anxiety and stress disorders under the effects of various types of subjective and objective factors. 27.39% of the Chinese medical staff participating in the treatment for COVID-19 from February 7 to 14, 2020 are in stress and 23.04% are in anxiety.



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Not only are they frightened by this highly contagious disease, but they are also talking about it fearfully. The mixture of stress, explanatory, emotional, defensive and physiological response to injuries are known as mental illness (20, 24, 45).

Several factors of SCL-90 like somatisation, obsessive-compulsiveness, anxiety, phobic anxiety, and psychoticism of these workers are seemingly higher than the normal ones. Among 1521 medical staff in Jiangsu Province, China who took part in battling the crisis, 14.1% showed psychological abnormality. However, the data is still limited.

Not all healthcare workers have been included in this research. The impact of the pandemic on other key frontline staff such as general practitioners, nurses in nursery homes, ambulance drivers, staff in the cafeteria or laundry, still needs to be investigated.

Further, most of the recent researches were from short-term cohort studies, which did not conclude the long-term psychological impact of this pandemic on healthcare workers (15, 23, 24). As a result, more follow-up studies need to be carried out to address the mental distress this pandemic has caused.

Literature has shown that there are countless factors which have contributed to poor mental health outcomes among Chinese healthcare workers. These include concerns about contracting the virus themselves, transmitting the virus to family, the extra workload and lack of support from the hospitals. Those with a poor mental health history, women, nurses, junior staff, and elderly staff are particularly vulnerable. (19-21).

Women on the frontline are more vulnerable to psychological distress due to the higher rate of medical violence they are experiencing compared to normal. (10, 13, 19, 22-25). Physical violence, compared to verbal abuse, is more commonly experienced by female healthcare workers. They have been provided with very little resources and support, such as information leaflets or a practical written protocol to follow, in order to address this abuse and this lack of support has led to an underreporting of the violence they are victim to. (26) As a result, significant psychological issues such as trauma, changing work conditions due to insufficient PPE and levels of absence need to be acknowledged. (27) Nurses had to work overtime.

Nurses experienced added stress due to a lack of extra financial compensation and their long-term exposure to infected patients. They feel compelled to undertake this overtime work, despite the impact that it may have on their mental health, due to the social and moral responsibilities which come with their work (10, 13, 19, 22-25). The trauma which nurses are experiencing vicariously through their patients such as fear, despair and inattention, is being amplified in a high-pressure, high-risk environment during the pandemic. Accompanied by the trauma they have experienced on top of their interpersonal conflict; suicide is also common. 11% of nurses working in the United States have reported attempting suicide between 2009 and 2016. (28)

Junior staff, who are less experienced, are also facing more difficulties and hardships during the pandemic. (15, 19, 25, 29, 30). Particularly, junior staff experience more frequent verbal abuse. (27)

In older healthcare workers, increased and prolonged psychological stress may lead to acute exacerbations of chronic problems like cardiac arrhythmia and myocardial infarction. They are also more likely to have other underlying chronic diseases, making them more vulnerable. (31, 32)

Therefore, recognising the factors contributing to their stress is important to start addressing the deteriorating mental health outcomes of healthcare workers which are becoming apparent as a result of the pandemic.

Studies have shown that self-regulation, mental support from medical institutions, government, family and the public, are useful in alleviating the stress which some healthcare workers are currently experiencing.

Not only have personal traits like optimism, resilience and altruism been shown to reduce stress, but other measures regulated by healthcare workers themselves have proven to be useful. Self-regulated infection control, self-care, routine protocols after arriving home (e.g. taking off shoes, washing clothing and showering immediately), training, social isolation coping mechanisms and adequate rest have all helped healthcare workers to cope (2, 5, 25, 33, 34).

Support from hospital management, in addition to guidance and safeguards to prevent transmission, have proven to help health workers cope. (2, 14, 25, 30, 33-39). Sufficient PPE has been most crucial in motivating medical staff to continue working during this pandemic. (2, 7, 14, 21, 25, 30, 32, 33, 35, 37, 40, 41). However, as medical violence towards healthcare workers is often under-reported, hospitals should encourage the reporting of violence by taking a systematic approach. (27) Active review of hospital guidelines may help to reduce the workload stresses experienced by healthcare workers in China. (2, 13, 21, 22, 25, 32-35, 40, 42-44).

The National Health Commission of China has issued documents like basic principles for emergency psychological crisis interventions to raise awareness of the mental health battles medical personnel in China are currently facing during this pandemic. (16, 17, 22, 23, 32, 45). Sharing information transparently around global networks prompts communication and evades uncertainty with trust (2, 7, 14, 21, 25, 30, 32, 33, 35, 37, 40, 41).

Psychological First Aid and follow-up programs with relaxing techniques have proven to be effective in helping healthcare workers cope. (17, 22, 23, 32, 45). Further, strengthening bonds with family and friends by sharing things beyond work and hoping their family to understand their choices are shown to be more significant in reducing stress than visiting psychologists. (2, 7, 14, 21, 25, 30, 32, 33, 35, 37, 40, 41, 46).

Human-oriented culture such as providing food and supplies to medical staff can promote mental health and confidence of staff. Establishing a comprehensive psychological consultation organisation can be held in a more advanced mental health management. Proper treatment with follow-up is needed for workers in high-risk SARS units who are more likely to suffer from post-traumatic stress disorder (PTSD). (2, 13, 21, 22, 25, 32-35, 40, 42-44, 47).

In conclusion, healthcare workers in China have been experiencing immense psychological pressure during this pandemic. Changes in their work environment, alongside several other factors, such as concerns about transmitting the virus to loved ones and a lack of sufficient PPE, have contributed to their pressures.

Although multiple coping methods have been utilised, much more needs to be done to address mental health problems affecting frontline workers such as support groups, where they can interact with one another and share their experiences. This way, they feel less isolated and can maintain a high quality of care for their patients while being mentally healthy as they fight this pandemic.

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The Psycho- logical Sequelae Of COVID-19 Pandemic



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March 21, 2020 - the new definition of normal was out and loud, the second largest country in terms of population was under a complete lockdown, 1.4 billion people asked to stay home in a country with around a quarter of its population below the poverty line and many of them not even having a sustainable home. The lockdown as it came was not the same for everyone, for many it came as a time of joy and complete family time, while for some it was a bare-foot journey of a hundred miles just to

get back home. With the rising fear of this novel virus we were forced to make a few if not many changes in our lives, masks became the most important part of your attire, hand sanitisers were the only form of alcohol allowed to be sold and with handshakes now considered lethal the world finally acknowledged the Indian gesture of greetings - Namaste!

While we were consumed by the fact that we as a whole human race were facing a global crisis due to a virus spreading like a wildfire, we all certainly ignored the already rising mental health issues. In the times when we all had to be united like a single tribe and stand together hand in hand, we were advised to soci-

ally distance ourselves from each other to ensure minimal contact. Lock-down was surely the need of the hour, but it came with a high cost which was paid unevenly by different societies of our community. Unemployment hit a record high, businesses shut down, local street vendors were pushed back to their homes, daily wagers were left stranded with empty pockets and heavy hearts. For many, the cost of surviving was simple: the sacrifice of their livelihood. The COVID-19 pandemic surely exposed our crippled health care system and ignited a global economic crisis which had a major impact on the way we think and respond towards our society.

The stress of self-isolation, jobs, health, and the economic uncertainty with a daily onslaught of bad news were enough to trigger depression or exacerbate an existing condition. Where many came in supporting the ones in need with food and shelter, we somehow ignored the sequelae of this pandemic which ranges from depression to alcoholism, and from anxiety to domestic violence. Isolation and loneliness fuel depression which hits everyone equally, irrespective of your age, gender, ethnicity, and economic background. This pandemic also derailed careers and lives of some generations - specifically, millennials - more than others, though young adults and children have less risk of major complications from the coronavirus, but, they seem to be suffering the most mental anguish resulting from closing down of schools and universities, social gatherings being banned, public places now off limits for the public, internships being called off and drying up of job opportunities. The social lives and job-hunting network of young adults, for the first time in recent memory, was paused.

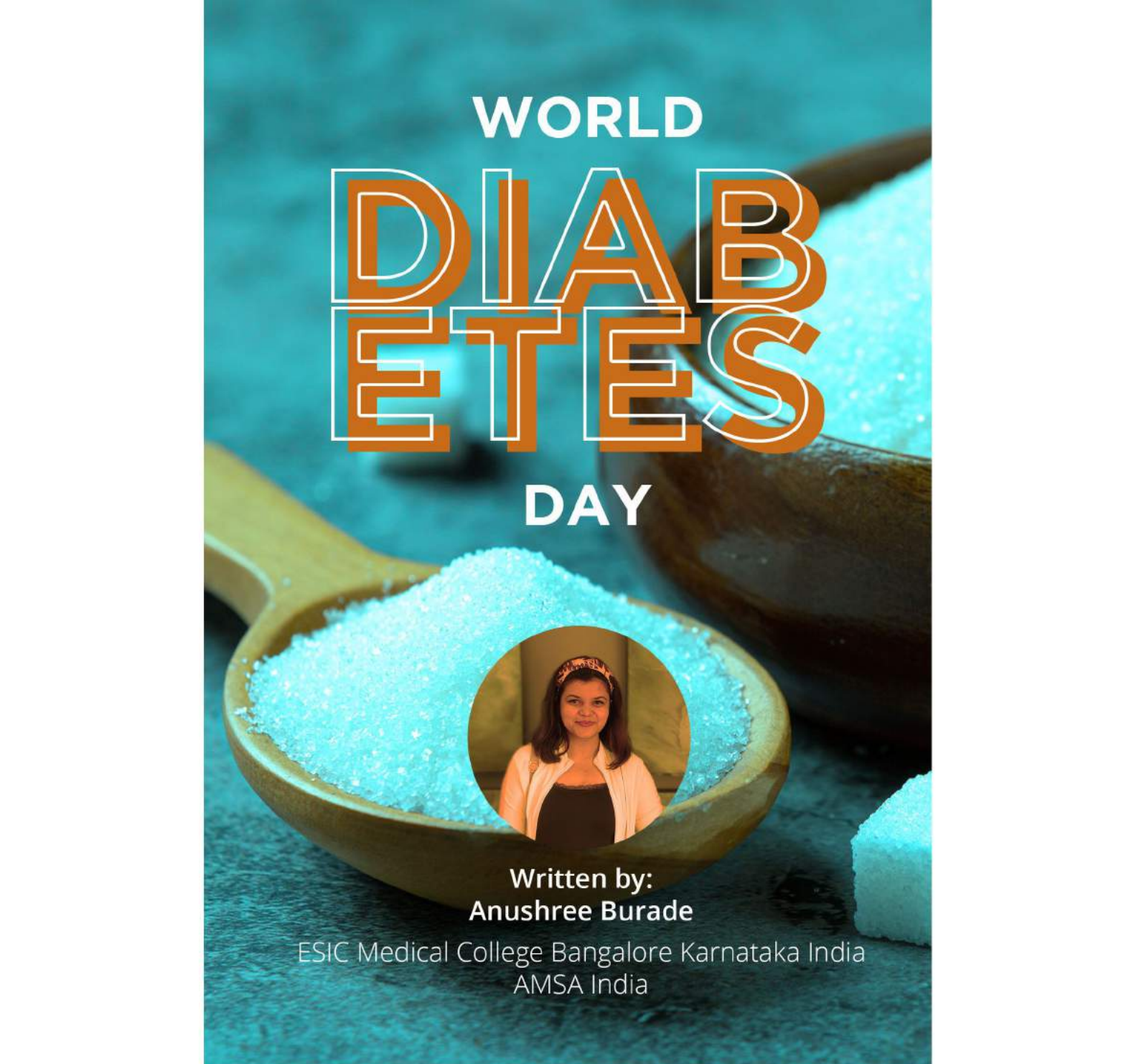
In the context of mental health, the aftermath of this pandemic and the year 2020 as a whole, has been disturbing to scoop, as the rate of anxiety tripled and that of depression almost quadrupled in the United States of America which has been the most afflicted region so far, this skyrocketing of mental health issues was reported globally and not just in one region. The fear of catching the disease, spreading it to others and loss of loved ones in these times left people ruminating, feeling helpless, hopeless, and ultimately, depressed. The unprecedented uncertainty has been the root of this scourge of depression and anxiety amid the COVID-19 pandemic.

The concerns regarding the substantial increase in anxiety, depression, loneliness, and substance abuse, triggered a few countries in launching a psychological first aid for people in desperate need of help. Psychologists were made available over the phone for the residents of many European countries by their respective governments to minimise the collateral damage of this pandemic. communities have adapted to this drastic change in the modus vivendi to overcome the social distancing and its sequelae by digitalising most of the sectors such as online classes for students which ensures the much required interaction of students with their peer groups in the times of physical distancing, video conferences replacing the in-person meetings, minimal use of paper money to avoid contact, and teletherapy introduced and promoted to avoid unnecessary hospital trips. People also came together and acknowledged the value of family and their health during these uncertain times when all the planning and the foreseen future were shattered. All these factors have contributed towards a healthier mental state over the timeline of this pandemic for many.





With the number of cases still rising and the vaccine still in clinical trials phase, it is not uncommon to think that this pandemic has, in fact, paved a way for another pandemic of depression and other mental health issues, as once we get the treatment and vaccine, it is naive to think that the mental health consequences of COVID-19 will just vanish overnight.



WORLD DIABETES DAY



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World Diabetes Day is held on 14 November each year to increase awareness about diabetes worldwide. Diabetes prevalence has been rising more rapidly especially in low and middle-income countries than in high-income countries. WHO statistics shows that, "The number of people with diabetes rose from 108 million in 1980 to 422 million in 2014. Between 2000 and 2016, there was a 5% increase in premature mortality from diabetes. In 2016, an estimated 1.6 million deaths were directly caused by diabetes. Another 2.2 million deaths were attributable to high blood glucose in 2012". What does this indicate? Despite the current COVID-19 pandemic that has been going on, there are probably way more people dying directly or indirectly due to diabetes than due to COVID-19. In fact, a number of late studies have shown how diabetes predisposes the patient to getting infected by COVID-19 than his/her non-diabetic counterpart.

Diabetes is a major cause of blindness, kidney failure, heart attacks, stroke and lower limb amputation. Most of these conditions are the leading cause of mortality in the world.

If we treat the basic root cause of diabetes, imagine how many lives we can save? How much money we can save on providing healthcare facilities, thus reducing the heavy burden of income tax and hence we are able to provide better life to mankind, especially to poor vulnerable groups of people. "A healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use are ways to prevent or delay the onset of type 2 diabetes. Diabetes can be treated, and its consequences avoided or delayed with diet, physical activity, medication and regular screening and treatment for complications," states WHO.

They say prevention is better than cure, but how far can we apply this principle in this context? An article from Times of India states, "Studies in India estimated that, for a low-income Indian family with an adult with diabetes, as much as 20 percent of family income may be devoted to diabetes care. For families with a diabetic child, up to 35 percent of income is spent on diabetes care. If you have diabetes for five years you would have spent around Rs150,000 on diabetes treatment alone. After 10 years you would have spent Rs4,00,000 and after 20 years you would have spent Rs1,500,000. The increase in cost with time is due to the increase in complications." And how much does eating healthy, exercising regularly, not consuming tobacco, regular screening cost each one of us? Money worth peanuts I suppose as compared to these statistics. And in spite of knowing this information, diabetes is still one of the leading causes of mortality and morbidity.



So, what can be done? What should we focus on? How can we tackle this issue? I personally think the answer lies in making reforms in governments' policies. While tobacco products always come with statutory warning on its front, why are McDonald's, Burger King, KFC and other fast food chains running their businesses which are worth billions of dollars without even having a single line of warning? Why aren't we taxing heavily on fast food restaurants? Why is a McDonald's burger much cheaper than salads in restaurants? The average steps per day worldwide by people is 4900, while taking 7500 steps per day is considered to be an active lifestyle. We live in a world where a common man even uses his car to go to a nearby shop. Clearly, we can understand why cases of diabetes are spiking. If counselling alone doesn't work, if it doesn't maintain follow-up sessions for patients, governments have to make drastic reforms in its policies in order to make their citizens adhere to a healthy lifestyle. Thus, this will prevent an increase in cases of diabetes.



They say, "Out of sight, out of mind," while it's unreasonable to expect governments to completely ban fast food chains, I would rather suggest a slightly modified version of the previous principle, "Change in sight, shift your mind," that is, it's certainly hard to avoid hanging out with your friends, or celebrating parties, or not getting the time to hit the gym daily, but if we swap those unhealthy food with real, raw, healthy food items, and instead of taking cars to nearby groceries, we take bicycles (which by the way will be great for environment too) will make huge difference, that too is at minimum investment. Like they say, "The devil is in the detail," I also believe, "success is in the detail".

THE END IS THE BEGINNING



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All of the blizzards, bomb cyclones, torrential downpours, unpredictable temperate fluctuations, and everything else we've had to endure on a near daily basis is in the time of an ordinary summer. But this 2020 made the scenario different. We all get to experience the COVID-19 pandemic which blessed us with lockdowns and social distancing. It has made the poor poorer, gifted us employment crisis. The UN's International Labour Organization predicts 1.6 billion informal economy workers could suffer "massive damage" to their livelihoods. Current G7 jobless totals vary widely, from 30 million in the United States to 1.76 million in Japan. India's unemployment rate is now at a record high of 27.1%, according to the Centre for Monitoring the Indian Economy (CMIE). All these crisis demands a solution and the solution is coronavirus vaccine

Why we need coronavirus vaccine?

Coronavirus is contagious and spreads very easily. A vaccine provides protection by training immune systems to fight the virus so they should not become sick.

How many vaccines do we have?

Research is happening and more than 150 are in early development, and around two dozen are now being tested on people in clinical trials.

- mRNA-1273**: It's a vaccine developed by Oxford University (Moderna, NIAID, BARDA). Now it's in phase 3 and has about 30,000 participants. Trials show that it can trigger an immune response.

- CoronaVac**; It's developed by Sinovac and Instituto Butantan. Now it's in phase 3 and has more than 10,000 participants. Trials show it can increase immunogenicity by 92% at lower dose.

- Sputnik V**: Russian President Vladimir Putin recently announced the first ever approved Covid-19 vaccine 'Sputnik V' and inoculated it to one of his own daughters, stating that it was 'safe'.

- BNT162 a1, b1, b2, c2**: It's developed by BioNTech, Fosun Pharma, Pfizer and has about 30,000 participants. Now it's in phase 3 and it also triggers an immune response.

AZD1222, Ad5-nCoV, INO-4800, AG0301-COVID19, COVID-19/aAPC, LV-SMENP-DC, LNP-nCoVsaRNA, NVX-CoV2373 etc. are coronavirus vaccines which are on clinical trial process, though no one knows how effective these vaccines would be.

Summer is ending with the hope of these vaccines to be effective. So, it's not the ending, it's the beginning. It's the beginning of a new life, a new world. A world without social distancing and any type of crisis. So "Bye bye summer, welcome fall" shouldn't be our slogan. "Bye corona & welcome life" should be our slogan this time.

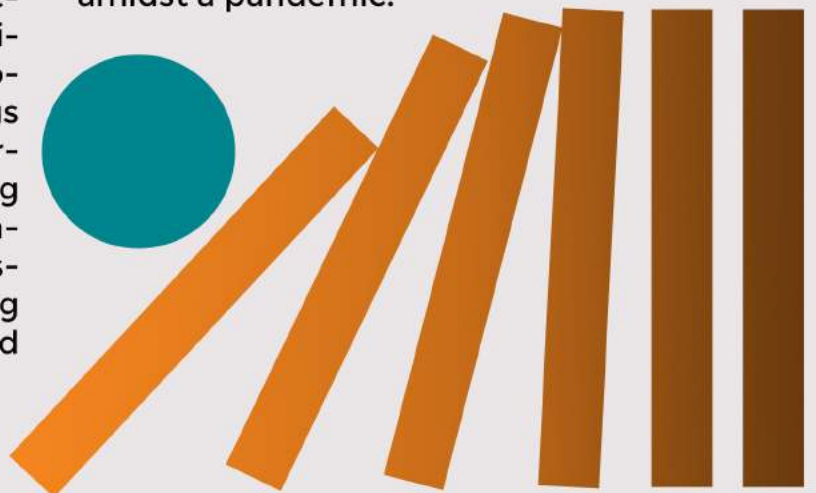
FOOD SAFETY DURING PANDEMICS:

TRANSMISSION OF CORONAVIRUS ON FOOD AND PREVENTION OF FOODBORNE ILLNESSES.

During the COVID-19 pandemic, many people are concerned about whether they could contract the virus from consuming food products. This scenario has made many families feel anxious about bringing food to their table. According to the CDC, the Food and Drug Administration, and the World Health Organization, there is currently no evidence that the virus is transmitted through food or food packaging. Although experts say it is possible to pick up the virus by touching a contaminated surface, the risk remains very minimal if we keep on practising good cleaning habits and follow strict safety guidelines. Even though there are pieces of evidence showing that food is not known to be a route of transmission of viruses, it is still relevant to practise safe cleaning habits and protocols when handling food.

Most foodborne illnesses are infections caused by common bacterial pathogens such as *Clostridium* spp., *Escherichia* spp., *Salmonella* spp. and *Staphylococcus* spp. Therefore, it still makes perfect sense to keep on practising good sanitation and proper cleaning habits to prevent the transmission of COVID-19 despite knowing that viruses cannot be transmitted directly through food products.

Furthermore, coronaviruses do not multiply in food, unlike bacteria which can grow into thousands of cells in a very short amount of time if given the right conditions. It is also important to know that viruses require a living host to grow as they hijack the host's cell machinery to replicate millions of viral particles. But nonetheless, more studies are still needed to further understand the details of its transmission via food and survival on food. Some experts reported that coronaviruses could persist on contaminated surfaces of food packages which may enhance the probability of transmission. Since the coronavirus is passed from person to person through respiratory droplets, it is proposed that touching contaminated food packages can transmit the virus to the mouth, nose, or eyes. However, this is still not considered as the main route for disease spread because the virus shows poor survival on these surfaces. To combat this, proper food preparation, and good hygienic practices are still the best approach to reducing the risk of infection. As citizens, redoubling our cleaning and sanitation efforts is the key strategy to defend ourselves blindly from contracting the virus amidst a pandemic.



Safety measures and preventive steps in handling food products and packages include the following:

1. Always wash your hands after going to groceries, opening food packages, or picking up orders.
2. Remove any bags or external packages from the food product itself to avoid surface contamination.
3. Unpack your groceries or food items on a surface that you can clean after.
4. Always rinse your fruits and vegetables thoroughly with clean running water, not soap.
5. Properly wash any reusable or waterproof food containers (jars, cans, plastic packages, etc.) with soap and water.
6. Always practise proper food hygiene by washing your hands before handling food and again before eating.
7. Do not eat raw food products (raw meat, eggs, dough, batter) to avoid contracting any foodborne pathogens.
8. Always separate raw meat from other food products. Use different cutting boards and containers for meat and vegetables to prevent cross-contamination.
9. Refrigerate perishable foods and leftovers as soon as possible.
10. Always make sure to cook your food to the recommended internal temperature. It is most preferred to cook your food at a higher temperature to kill any other microorganisms.
11. Do not consume expired or spoiled food products. Store your food properly in a good and safe environment to avoid food spoilage.
12. Avoid letting your food get cold or lukewarm. Bacteria and moulds thrive in a warm and moist environment. Make sure to cook or reheat your food properly with the recommended temperature.
13. Discard mouldy food products immediately. Foods with high moisture content (bread, pasta, cheese, cakes etc.) can be contaminated beneath the surface. Mouldy foods may also have bacteria growing along with the mould.

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Standing Apart Growing Together



Without a doubt, this pandemic has completely upended our lives. I am pretty sure many of us share similar sentiments: I just want my life back. This global crisis has taken a heavy toll on all of us, from barely going outside, and merely staying at home amidst all this uncertainty and isolation. These are extraordinary times that even surviving, adapting, coping, and thriving are a challenge on its own.

No matter who you are, this pandemic has a significant impact on your wellbeing. Livelihoods affected, people dying, time and time it just looks like it's one disaster to another. A seemingly never-ending cycle, with some, may think: I want this year to be over. There are days when we wish that things will be back to normal, but expectations and reality can hit differently; because things won't ever be the same. A "new normal" or even a "better normal" may sound like a dream, but it is not a farfetched dream.

Throughout this crisis, we have seen what we are capable of, that there is still hope for us. People have come together and brought various issues into the light, from growing concerns on vaccination, hygiene, mental health, and so much more. All of this stemmed from the collective struggles that we share. These are challenges far different from any other we have encountered in our lifetime. In facing adversities, the efforts of many might surpass these odds. Hearing these thoughts may be comforting, and it makes us realise that we are not alone in this, that we can move together while standing apart.

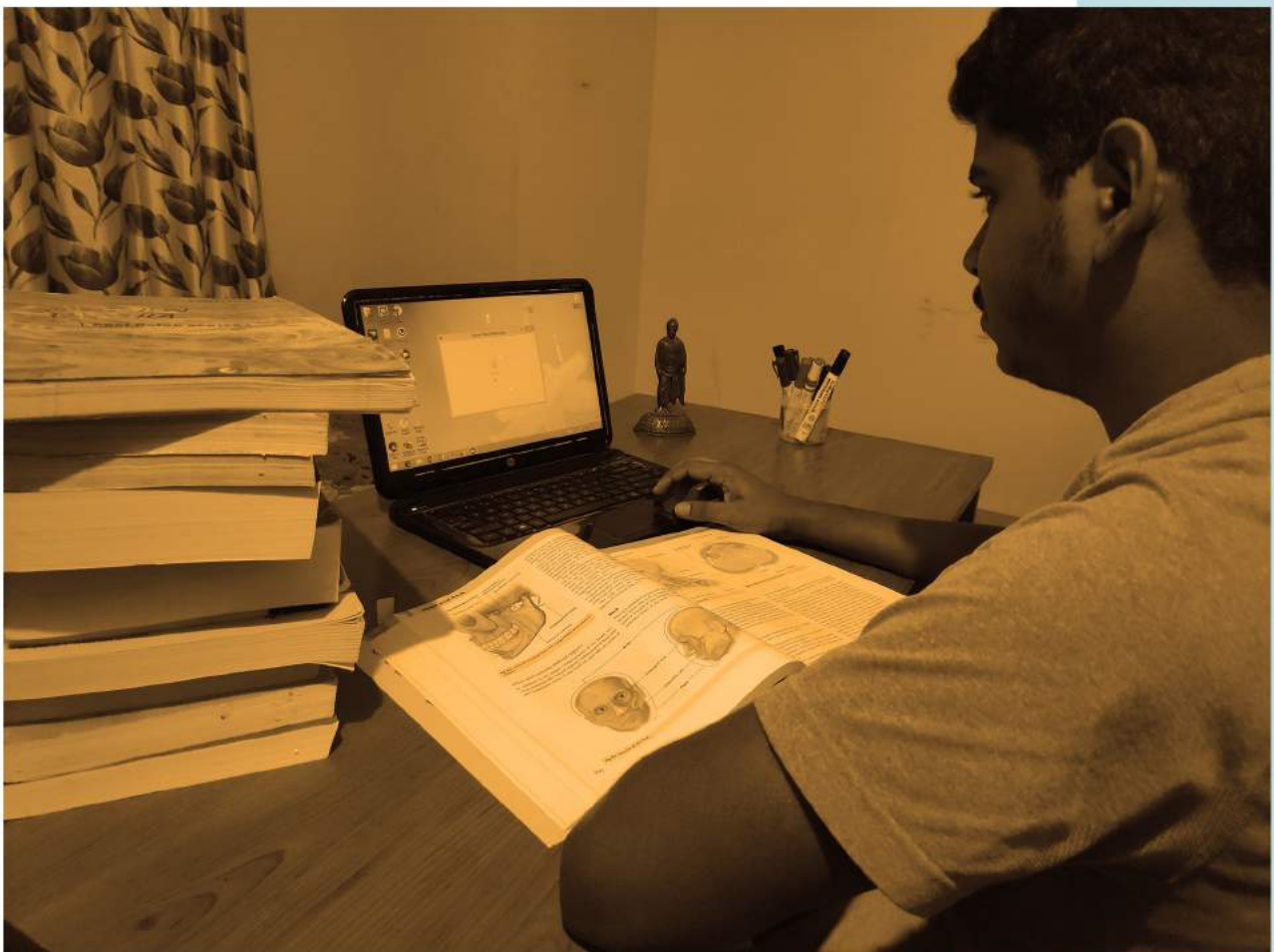
Who would have thought we can feel such a connection in this time of isolation? While these words may be idealistic, one can still hope. This trial is still not over yet, and its impact will echo for a long time. For now, what we can do is to take it one small step to take one day at a time. For us, the people of tomorrow, each of us has our capabilities, each of us can do our part, together we can overcome this crisis.

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ONLINE EDUCATION DURING THE COVID-19 PANDEMIC



C OVID-19 has turned people all across the world into home arrest mode and students are no exception. With the rise of COVID-19 infections, all schools, colleges, and universities across the globe have come to a halt. Nonetheless, the role of technology in connecting the students to the scholastics is undoubtedly immense. However, is it really the best these institutions can provide in this lockdown? Is academics the only means of learning? Is online education provided by the institutions and information provided by Google just the same? Can there be any better alternative? Let's find out.

It comes with no surprise that the past months have been difficult for all kinds of people, be it a bread earner, homemaker, or student. Flying back home with no normal classes is like a frozen time, just that aging goes on. Coming up with the notion of online education has definitely made the wheels roll forward. For first- and second-year medical students who are focusing mainly on preclinical subjects, online education was just the key, but still, the practical classes are yet to be covered. The third- and fourth-year students are really missing out on a great deal. Surgery and medicine are not something a person can rely completely on books; clinical exposure to the cases is immensely important, rotations and rounds in the hospital, primary healthcare centres are necessary to understand the subject and have better knowledge about it. So, believe it or not, the healthcare system is actually getting retarded at its roots. The online exams are more like an honesty test but doubtfully with 100% pass rates.

When one-way online education has turned out just like self-study, should we just ask Google for the passing certificates?

All of this makes the validation of online education and exams irrespective of the field highly questionable. Not only grown-up students, but the kids too, face problems. For kids, online education is more like homeschooling, just that the parents have to go through lower school all over again. Kids miss out on all non-academic activities. Academics can still be covered up by online education but it is not wholesome learning, is it? What about soft skills development and teamwork?

At this hour of crisis, high expectations are just too much to ask for. But more interactive e-learning can be helpful. Reaching out and listening to the students and their queries and a better, healthy, and friendly student-teacher relationship can just serve as the missing ingredient to the dish. An assurance to cover up for all the missing practical rotations and rounds can help students escape the fear of missing out on high-level education. With the implementation of some simple strategies and mutual understanding, we can make online education during this pandemic a success and prevent the coronavirus from attacking our dreams.

AN INVINCIBLE AND EVER-GROWING PANDEMIC: DIABETES MELLITUS TYPE-2



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For the past 9-10 months, there have been discussions regarding the havoc created by the COVID-19 virus. About a million people have lost their lives after being infected by this virus. The world is wishing for this pandemic to get over. But this COVID-19 pandemic is not the only one we are facing. One such silent and probably more serious, although non-contagious, so-called 'pandemic' is diabetes mellitus.

Diabetes mellitus is not a new disorder. It's a fairly old and familiar disease. However, even after being familiar with this disease, it has been fairly difficult to control the ever-increasing number of cases. Statistically, about 463 million people are living with diabetes worldwide, compared to 422 million in 2014 and 108 million in 1980. This number is predicted to increase to about 580 million by another decade, up to 700 million by 2045 and so on. According to WHO, about 1.6 million deaths were directly caused by diabetes in 2016, which may increase with an increasing number of cases. These numbers are as comprehensive as the stats of this COVID-19 pandemic.

We all know the adverse effects of diabetes mellitus. Cerebrovascular diseases, nephropathy, neuropathy, retinopathy, cardiovascular diseases, organ failure, lower-limb amputations due to foot gangrene and even coma are to list a few. With a disease having that much severity, it becomes an absolute necessity to cure and prevent it. Several medications and treatment options are available. Since treatment options keep the disease under control temporarily and are not a permanent solution, it is way better to prevent the onset of the disease as soon as possible, with a mere change in our lifestyle and habits.

One of the most predisposing risk factors is obesity. The measure of obesity can be done by two ideal methods, one is by measuring BMI (Body Mass Index) and second by calculating body fat percentage. Any value of BMI within 18-24.5 kg/m² is considered normal weight. Any value above 25kg/m² may predispose you to diabetes mellitus type 2. In the case of body fat percentage, 8-19% of fat is considered normal. Any value above 19% of fat may predispose you to diabetes mellitus type 2. Earlier, the disease was known to affect the age group of 45 years and above, as the body tends to accumulate more body fat at this age. But recent studies have shown increased incidences of disease in younger adults <30 years and even teenagers. This age demarcation has faded because unhealthy lifestyles, poor diet, and lack of exercise has led to excess fat accumulation in early age such as childhood obesity. Some observations and data strongly suggest that fat produces chemical signals which act on the liver and muscles to increase insulin resistance. One such possibility is that increase in adipocytes causes an increase in levels of adipose-derived hormones known as adipokines which increases insulin resistance. Other risk factors include a family history of diabetes mellitus type 2 and/or genetic predisposition, gestational diabetes mellitus. In those cases, you are more vulnerable to the disease and you need to be extra conscious about early prevention.

Naturally, the food we eat contains some carbohydrates along with other macro and micronutrients. This carbohydrate is broken down into glucose, which is absorbed through the enterocytes. This absorbed glucose in turn raises the blood glucose levels. This blood glucose stimulates B cells of the pancreas to secrete insulin. The insulin, in turn, activates certain glucose transporter channels that facilitate diffusion of glucose inside muscles, the liver, and adipocytes. In muscle and liver, it is converted to and stored as glycogen. In adipocytes, glucose is converted to glycerol phosphate which combines with free fatty acids to form triglycerides and stored there. Muscles and liver have a certain limit of the quantity of glycogen they can store. Once that limit is reached, insulin mobilises excess glucose inside adipocytes and there it is stored as fat.

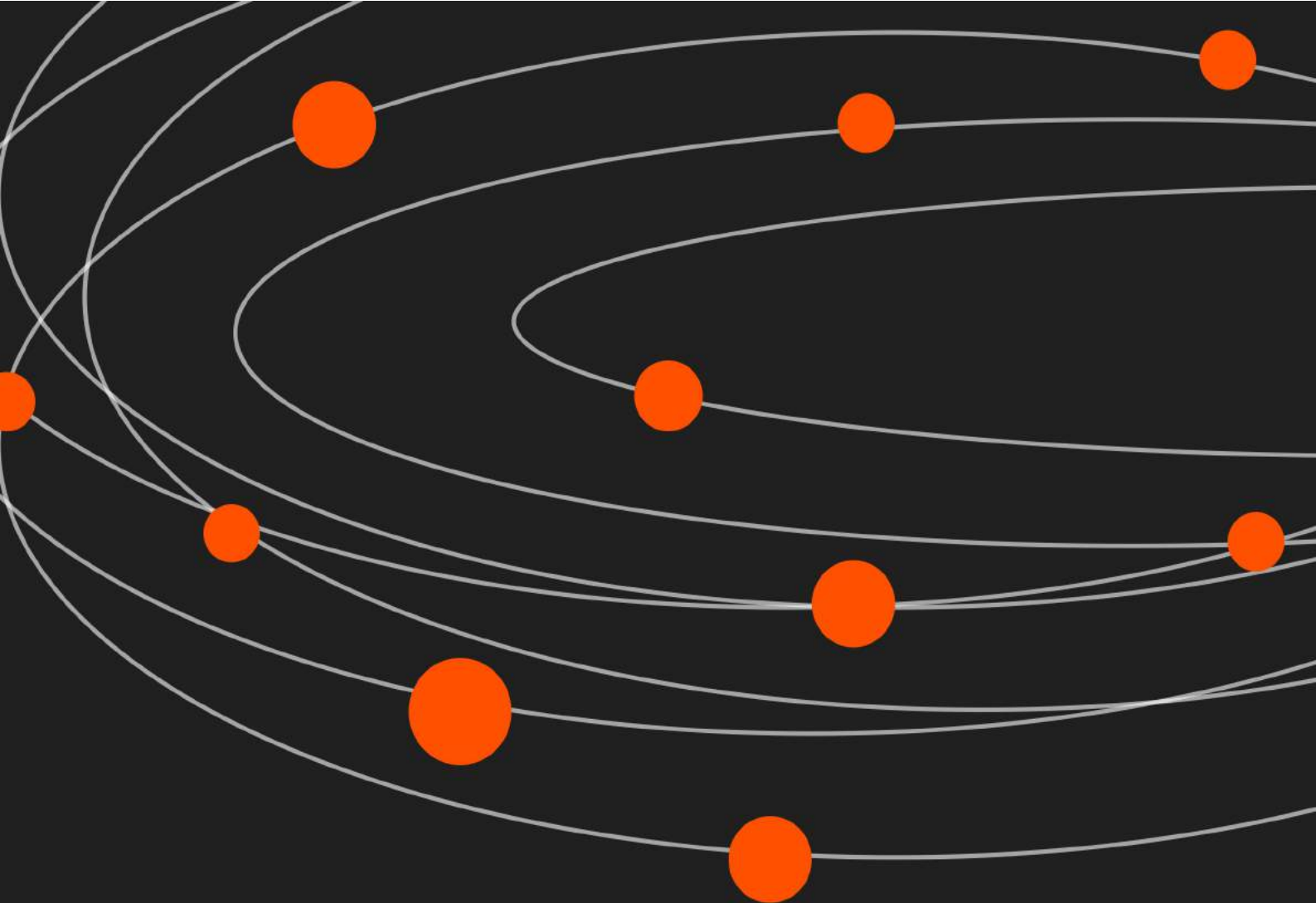


Now consider person A. He is taking carbohydrate sources in the diet. He is an active person, goes for a morning jog, goes out for some outdoor stuff like football/cricket or a regular jog. Naturally, due to his good amount of physical activity, his muscles and liver will start using stored glycogen and thus deplete its storage. As soon as he eats a carbohydrate source, absorbed glucose will be mobilised by insulin to muscles and liver, thus replenishing the glycogen stores and he is ready for activity again. No excess glucose was mobilised to adipocytes by insulin. Thus, this person never gains body fat and keeps blood glucose in control.

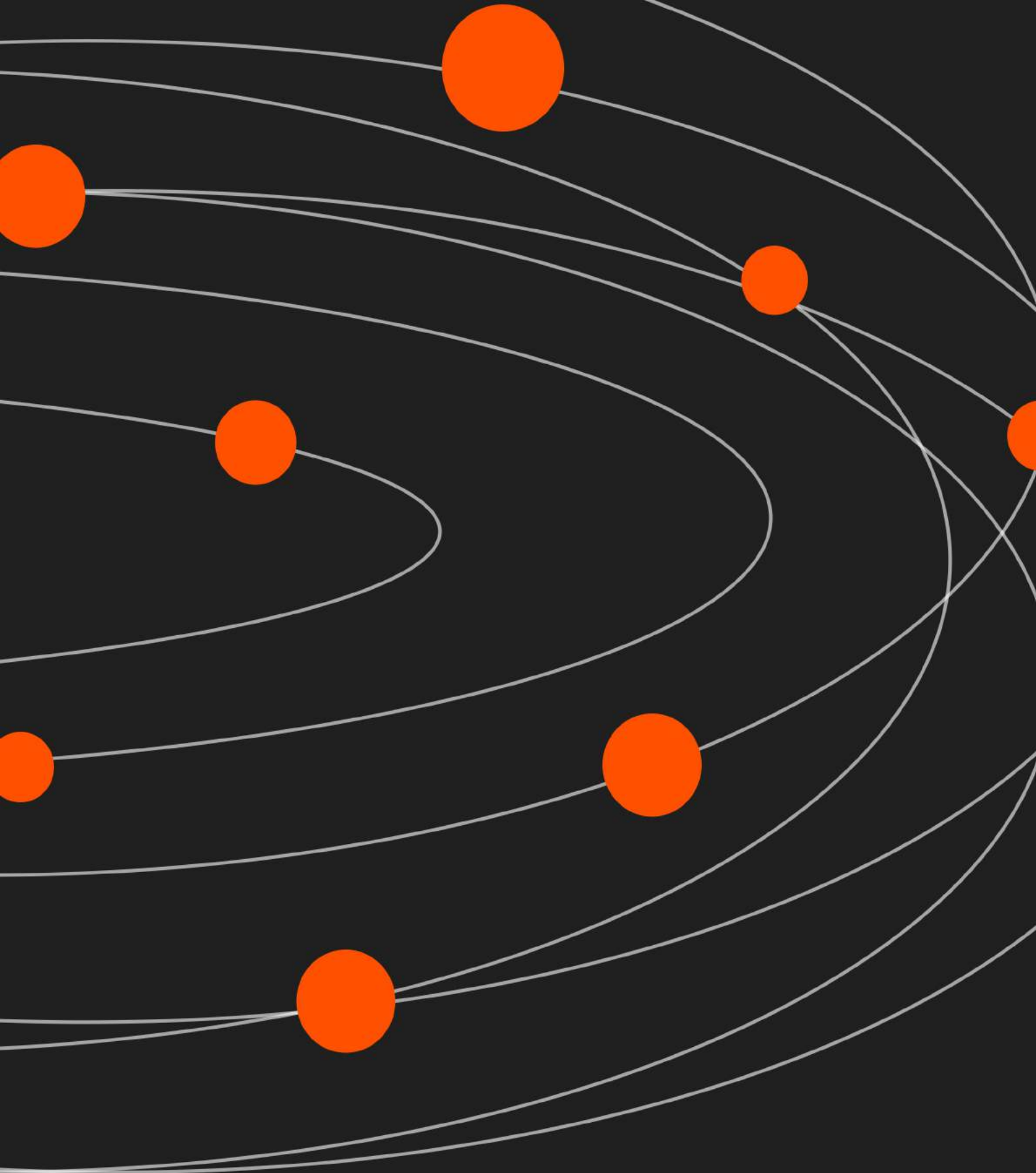
The type of carbohydrate source taken in the diet also plays a part in this cycle. The carbohydrate sources can be broadly classified as low glycemic index sources and high glycemic index sources. Low glycemic index sources are the ones that raise blood glucose levels slowly. They are complex carbohydrate sources and are digested and absorbed slowly, for example, oats, cereals, pulses, whole grains, brown rice, etc. High glycemic index sources are the ones that spike blood glucose level quickly. They are a simple and refined form of carbohydrates with either removed or already digested complex carbohydrates. Examples include sugar, sweets, refined flour, white rice, white bread, etc. An instant spike in blood glucose level as in the case of high glycemic index sources will immediately increase insulin secretion which in turn will cause increased mobilisation of this excess glucose inside adipocytes (if glycogen stores become replenished) and thus, increases chances of obesity and insulin resistance. Low glycemic index sources will slowly raise blood glucose levels and glycogen stores will get time to deplete before insulin could increase and replenish the stores back. Sadly, high glycemic index sources are enjoyed by the population more because they are tastier and easily chewable and digestible. This increases the tendency of the population to be predisposed to diabetes mellitus type 2.

This pandemic has left many of us at home or inside our rooms. There is not much physical activity to do. We are in our rooms, sitting or lying on bed and using phones and TVs. On top of that, many of us trying our hands-on cooking like cream cakes, pizzas, burgers, chocolate shakes, etc. Eating habits have gone bad, literally eating free carbohydrates every hour or two such as bread sandwiches, sweets, biscuits, snacks, milkshakes. These things are yummy, why would you leave them? But basically, what we are doing is sitting or lying on bed and eating free calories; turning us into person B (or maybe even worse) described above. Due to this many of us have gained weight and have become obese. We have discussed above the risks of childhood or teenage obesity and early predisposition of diabetes mellitus type 2. So, we must stop this vicious cycle of gaining body fat in this lockdown now only, or otherwise, it may be too late for prevention.

To start with the process of preventing, first, take measurements. Calculate your BMI and body fat percentage with callipers. Now we will again consider two categories: category 1, if your BMI and body fat percentage is normal, which means you haven't gained fat mass over the limit during this lockdown. Category 2 is if your BMI and body fat percentage is above normal and you have become overweight/obese.




For category 1, they don't necessarily need to lose weight but should improve their diet and activity. Introduce more low glycemic index foods in their diet like whole grains, cereals, pulses, etc. Try reducing unnecessary sugar consumption sweets, fruit juices with added sugars, etc. Try eating fruits rather than having fruits juices. Limit the consumption of white rice. Reduce intake of cheat foods like biscuits, snacks (occasionally). Eat only when hungry and not when bored. Divide your daily calorie intake into 5-6 meals i.e. eating less but frequently than overeating at one meal and fasting at other. This will prevent a quick spike in blood glucose. Start eating monounsaturated and polyunsaturated fatty acids sources like walnuts, almonds, good quality vegetable oils, and limit consumption of saturated fatty acids like butter, ghee, overheated oil, etc. This will improve your HDL levels and in turn lipid profile. Introduce salad with green vegetables into your meal. Eat food items rich in fibres like cereals, whole grains, vegetables, fruits, etc. Try getting up early morning and going for a 30-minute jog or a brisk walk for 45 minutes. Since most of the time we are at home, try indulging in daily household work like cleaning your room yourself. This will increase your activity level and muscles and liver will deplete the stored glycogen which you will replenish by diet. Don't sit idle on your phone doing nothing. Instead, you can walk around outside or go for cycling locally. If there is a ground nearby, try indulging in some sort of outdoor game like football, badminton, cricket. It's okay, even if there is no local ground nearby. You can go cycling or for a walk. Try remaining active at home, do your things yourself, help others in doing household work. Balance your carbohydrate intake and your physical activity (daily carbohydrate intake is about 250-350 gm). Sleep for at least 7-8 hours daily to give body ample amount of rest after a busy day. Healthy eating habits and physical activity will help you maintain your health and keep you away from diabetes mellitus.



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For category 2, it's pretty much similar to category 1 except your first step is to lose fat and bring your body weight back to normal. Reduce the carbohydrate consumption such that ketogenic hormones like glucagon, epinephrine, and growth hormone will breakdown stored fat for gluconeogenesis. Eat fruits and green vegetables for necessary vitamins and minerals. Consume salad before your meal so that you do not feel hungry. Eat fibre rich foods like pulses, whole grains, fruits, and vegetables. Consume more of polyunsaturated and monounsaturated fatty acid sources. Optimise your protein sources like eggs, paneer, tofu, soy, meat accordingly to avoid catabolism of muscle and muscle mass loss. Go for a jog or a brisk walk for 30-45 min in the morning, as the body is already in the overnight fasting state in the early morning and will catabolise fat more rapidly. Try to remain active by doing regular household work. Go for a random walk or mild cycling when idle. Eat less but frequently. Avoid sugar, sweets, biscuits, snacks, etc. If possible, indulge yourself in outdoor games. Sleep for 7- 8 hours to rest your body and refill for the next day. A good diet with physical activity and proper sleep and rest will help you losing weight and make you feel better and relaxed, thus reducing the risks for diabetes mellitus in future.

On usual working days before this pandemic, it was difficult to analyse and correct our dietary habits and health unless it was a habit because there was no edge off from work stress. This pandemic provides us with a chance to explore and correct our habits and think what's right for us. There is an adage saying that it takes 21 days for a routine to become a habit. So why not use just 21 days of this lockdown to develop some healthy habits and lifestyle such that it automatically incorporates into your daily routine and help you debilitating this disease and living a healthy life? Let's curb the vicious circle of this invincible disease: diabetes mellitus type 2.

DEMYSTIFYING MINDFULNESS:

AN UNORTHODOX APPROACH TO COVID-19 RELATED STRESS

Who would've thought that we would spend more than half of our 2020 within the protection of our own quarters? The Coronavirus disease or better known as COVID-19 has been of the biggest disruptions ever occurred within the 21st century. Due to its high infectivity, the disease has spread globally at an outlandish rate, receiving the status of a public health emergency of international concern (PHEIC) on the 23rd of January and latter acquiring the pandemic status on the 11th of March. Due to its novelty,



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several solutions were thrown by different stakeholders. Answers ranging from massive lockdown procedures, mask-wearing campaigns, and physical distancing efforts were implemented with the purpose to sever off the transmission chain of the virus. Despite the numbers dwindling overtime with those efforts, ironically, a plethora of other problems starts to resurface. Issues regarding economical stability, food security, and mental health wellbeing were inflicted tremendously by the physical

distancing efforts enforced by the government. Zeroing in on mental wellbeing, the pandemic instigated a new wave of trauma and stress that arguably could be more severe than the COVID-19 symptoms itself. The paranoia of needing to be exceptionally sanitary to prevent the disease has been an additional burden for the public. Moreover, the notion of not knowing when the pandemic would end exacerbated the paranoia leading to an increasing level of stress and anxiety. Furthermore, the limitation of not being able to physically talk with close relatives was proven to be too much for some people, including myself. Personally speaking, the massive changes brought by the pandemic has been detrimental to most of my daily routines. Henceforth, I

have been scavenging through different coping mechanisms that might succeed, and that's where mindfulness steps into the frame.

Mindfulness can be defined as being aware of the present moment. Despite the abstract definition, mindfulness can be narrowed down into noticing the slightest details, movements, and thoughts you are experiencing at the time. Not to be confused by certain type of meditations, mindfulness does not require any mantras or spells commonly associated with transcendental meditation. Furthermore, the practice of mindfulness has been gaining a lot of traction in research, such as the research conducted by the National Institute of Health (NIH) that showed how mindfulness positively affect stress and aid in the treatment mental related diseases such as anxiety and depression and even non-psychological diseases such as high blood pressure and chronic pain. The progression in studies and evidence-based medicine has established mindfulness as a form of proper treatment and not just merely a made-up alternative to psychiatrist visit.

To properly achieve mindfulness firstly you should understand the correct definition of mindfulness. Many overly stigmatise mindfulness and meditation that 'empties your mind' and 'loses your thoughts'. In actuality, mindfulness is a state where your mind becomes more aware about yourself and your surroundings. This state of awareness involves your mind to focus on certain aspects that usually went unnoticed. Take for example handwashing. Due to the pandemic enforcing us to wash our hands constantly, our mind has been wired to think about COVID-19 every time we wash our hands. The thought of the virus being on the surface of your palms constantly could be daunting to some as they try to wash every nook and cranny of their fingers, leading to unnecessary stress.

By applying mindfulness, instead of focusing on COVID-19, you should focus more on the sensation of handwashing. Pay more attention on the physical touch made by both of your palms as they rub on one another. Pay attention on the sound of the water, the smell of the soap, and the speed of your hands as they wash themselves. Whenever a thought passes through that could be stress inducing, ingest it for a while, and return your focus back on handwashing. By putting more focus on the present, wild thoughts could be avoided that usually ends up in overthinking and lastly stress.

But surely, that brief example is not a full representation of mindfulness and what it is capable of. To help in the process of achieving mindfulness, here are some steps that may help in starting your mindfulness journey:

1. Time

Plan ahead and set some for your mindfulness session. You don't need any fancy equipment to achieve mindfulness, just proper time and space for your mind to focus

2. Observe

Mindfulness is a state of full awareness and not the quieting of the mind. To do so, start observing things that is happening around you or even on you using your senses.

3. Ingest

As you start to become more aware, certain thoughts may pop up that may disrupt your focus. Do not throw these thoughts away, ingest them and understand them well

4. Return

Remember to not get too caught up on those notions and return back to observing things around you. Anchor yourself on those observations as you let your thoughts pass by without inflicting potential stress

5. Wander

Do not prevent your mind to wander away. The purpose of mindfulness is to control your calmness and not to suppress it. Give your mind ample space to think and ingest.



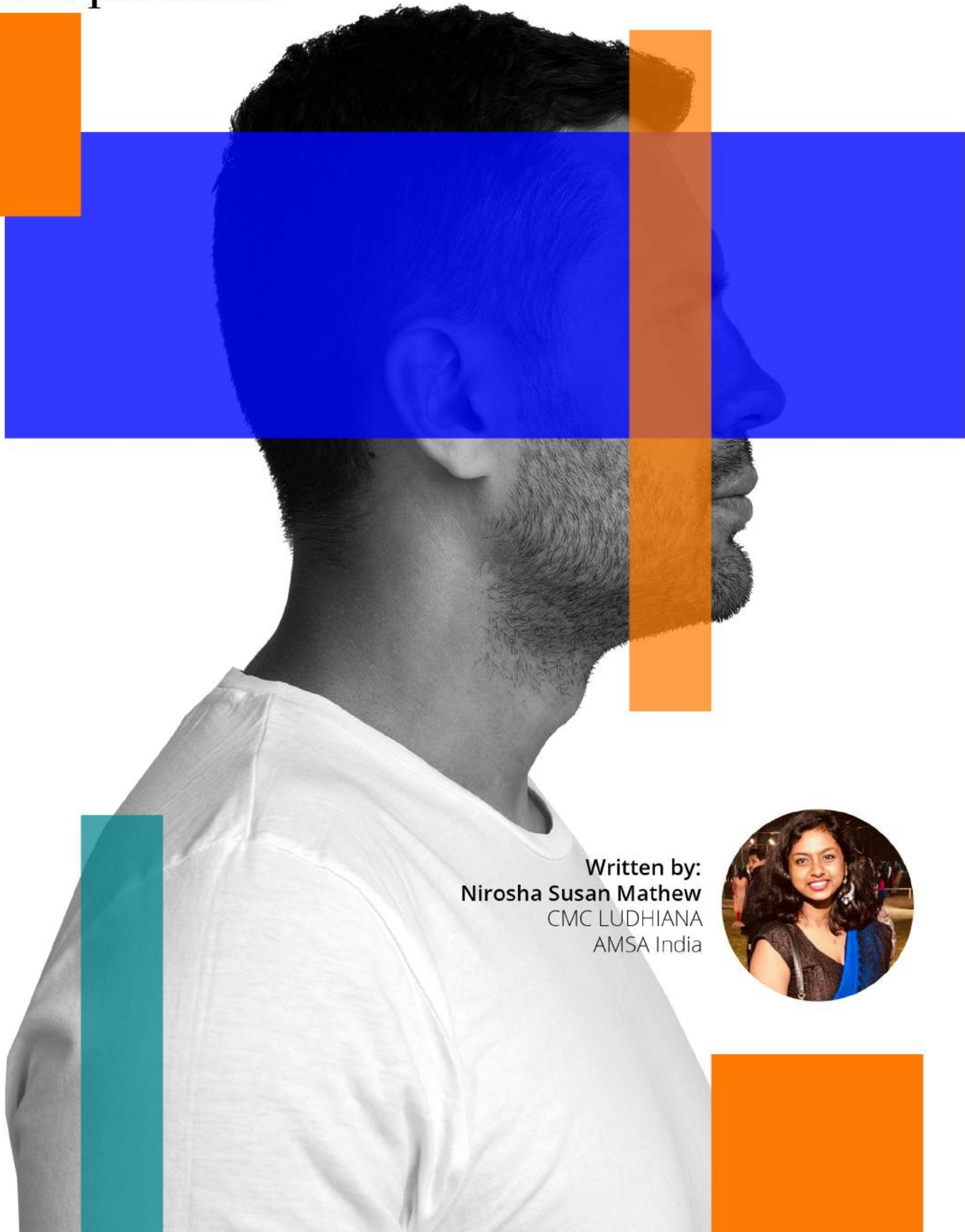


In conclusion, mindfulness could still be perceived as something that is not real. Scepticism may still be there to oppose it, but personally I feel mindfulness could be an effective method to address the increasing stress due to the pandemic. The inability to travel and physically meet resulted in the demand for first-hand methods to cope against stress and anxiety. Henceforth, there is an urgency to introduce mindfulness to the public with the hopes to decrease the long-lasting psychological impact brought by the pandemic.

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To celebrate World Mental Health Day on 10 October, we would like to know your opinion and knowledge about mental health issues during this pandemic!



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"My dark days made me stronger.
Or maybe I already was strong,
and they made me prove it."
– Emery Lord

Humans have been prisoned within their homes for months, deprived of sunlight and more importantly restricted from catching the dear 'pokemons'. At first, we adjusted and even enjoyed this solitude which seemed like a haven to a generation which if loves anything more than their snapchat filters is sprinting and winning in this race called life.

We all took up hobbies and creatives, spent time with family, took up old games like Ludo and carroms.

But what loomed over our heads was the crushing uncertainty of the world we left behind months back. And slowly the voices in our heads started becoming louder muting our online classes. Psychiatrists showed the shocking rise in patients who suffered from anxiety, depression, and other disorders since the lockdown. But I am not surprised, no amount of words and visuals encompassed in ones and zeroes can be equivalent to a caressing embrace or touch. Random meet ups with old friends on roads is impossible on a phone screen where "who texts first?" and blue ticks become more important than the eighth-grade friend who fed you daily at the school canteen.

We are connected yet apart. Ironical would be an apt name for us.

Smiling in snaps yet cutting wrists in closets.

Instead of reeking of desperation to connect with others, let's connect with ourselves first.

Instead of reading those comments, read a book.

Silence the noise and listen to your heart.

What I mean is that I feel the reason for such an astonishing rise in mental health deterioration is our obsession to be relevant. Also, these diseases have precipitated now which were numbed under superficial covers flashes and party gatherings.

The world needed this interval for us to get in touch with our true strong self.

"Grief does not change you, Hazel. It reveals you."- John Green

So, make this an opportunity to dig deep and unearth the kohinoor, i.e. YOU.

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Wellbeing During Pandemic

Uncertain prognosis, most people are resilient and do not succumb to psychopathology. Indeed, some people find new strengths during this novel COVID-19 pandemic!

Wellbeing during a pandemic is the major ongoing issue during this time because this continuous infection prevailing all over the world has infringed on personal freedoms, large and growing financial losses, major stresses, emotional and psychiatric illnesses.

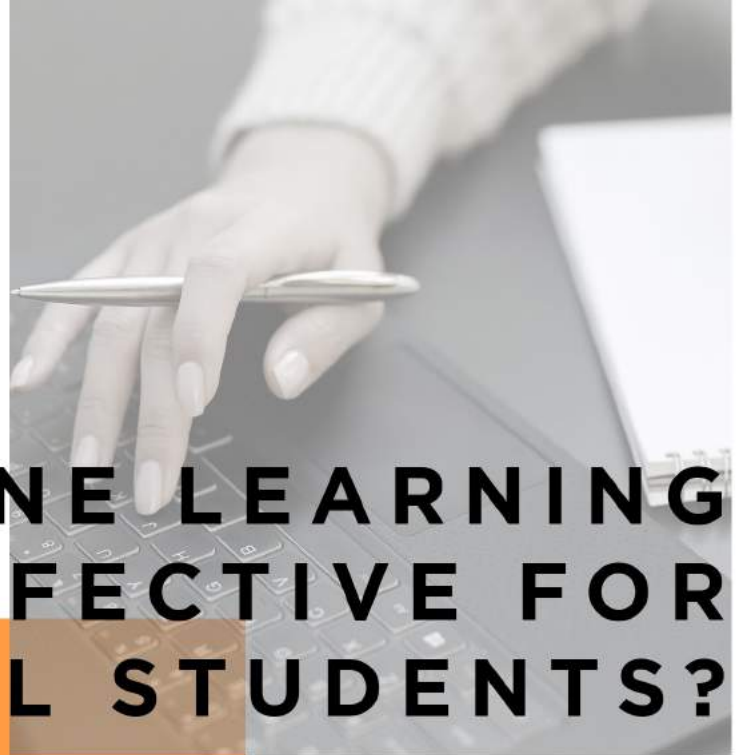
We know that Homo sapiens is nothing more than social animals, and on the contrary this life threatening virus has put people to isolation leading to emotional distress, confusion, depression, irritability, boredom, anger, fear, insomnia, insecurity, stigma and discrimination among society. This has totally affected the health of people. Being an individual as ourselves, it's our responsibility to maintain our wellbeing and to always look on the brighter side.

To get quarantined at home is a major opportunity to look up to, as spending time with family, loved ones, eating good food, cultivating hobbies, spending the day reading, listening to music, dancing, exercising, avoiding blue lights before bed and maintaining routines are certainly the positive sides of this time. Wellbeing is a major thing in itself as it's a prime responsibility and concern of every individual to get herself or himself indulged in family and own healthcare, as no doubt this pandemic has brought distress to people. That's why it gets more important to be a supportive family individual who always listens and cares, who monitors one's own stress reactions and seeking appropriate assistance for personal and professional responsibilities if needed during this time.

All we can do is not to underestimate the cognitive and emotional load that this pandemic could have brought us. Difficulty in concentrating, low motivation and a state of distraction are to be expected, adaptation to these will take time. Go easy on yourself. As we settle into this new rhythm of remote work and isolation, we need to be more realistic in the goals we set, both for ourselves and others in our charge. Try to lay a solid foundation for your mental and wellbeing.



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IS ONLINE LEARNING EFFECTIVE FOR MEDICAL STUDENTS?

Time flies really fast in 2020. The COVID-19 pandemic has been going on for almost a year now. Before, I never thought that as a medical student, I could learn from the comfort of my home just like what I've been doing for the past 9 months.

I still remember the time when I first started doing online classes. I was a bit confused but also excited because I was curious about how my classes would look like in an online setting.

Online learning is a new experience for me that I may not be able to experience again in the future. During almost two terms online, there were times when I felt happy, disappointed, and also upset. I think there are many advantages and disadvantages to online learning.

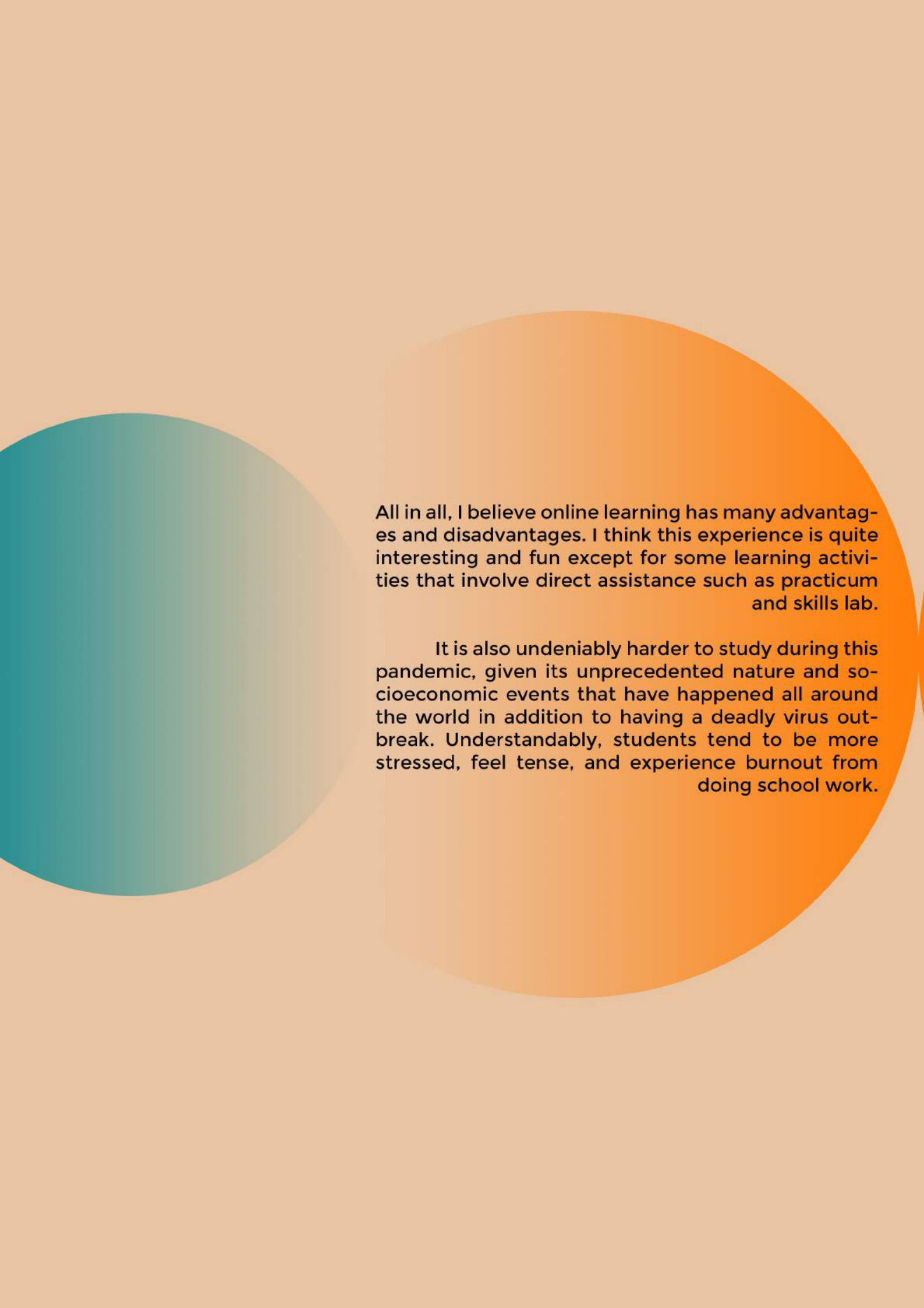
For me personally, online lectures are better than traditional ones because I can see and hear the materials clearly. Compared to offline lectures, online lectures are much less of a hassle, because I do not need to rush to class in order to get the front row seat just so I can see my professors' presentation slides. It has been impacting me positively in terms of focus, too. I never feel interrupted during online classes like I would otherwise do in class because I get to study in my own space with minimal distraction from other students. Other than that, my energy levels have never been better because I get to have more sleep since I do not need to be up very early to get ready and commute to campus. In addition to that, I can use the spare time to read more books and journals I wouldn't otherwise have the time to. Also, it took me by surprise that I now feel more courageous to ask questions in classes compared to when we used to have offline lectures. Perhaps, it is because I can just press a button to ask a question instead of raising my hand in a room full of people. And finally, my favourite feature of online lectures is that we're able to record the class and re-watch them at a later date! I usually replay the parts I do not quite catch during the synchronous lecture, and it has helped me tremendously in understanding my classes.

However, online learning also has its shortcomings. For instance, because everything is completely online, the internet connection really determines whether I can participate in learning activities properly or not. Oftentimes, my wifi does not work perfectly 100% of the time and it surely has caused a lot of lags and made me nervous during discussions, fearing that it would cut off when I was talking or presenting my work. Sometimes, I can't even listen to my professor's voice very well due to the poor connection. However, it is a minor problem for me because I can re-watch the part that I missed on the recorded lecture video., but when it comes to exams, it becomes very problematic because the professors usually expect us to get technical problems resolved prior to the test.

The most interesting part of online learning for me is how I would do my practicum and Skills Lab (SL). I never thought that they can be conducted online, but luckily my professors are very creative! They use many different kinds of methods, platforms, and also alternatives where possible to make the activities as fruitful as possible. For example, sometimes we change the assessment with an online quiz, make a video, and even do a direct interview with the professors who would act as a patient. However, although the online alternatives are great, it could never match the offline practicums and skills lab in terms of effectiveness. I personally feel like I can not get the technique and experience as effective as I would otherwise get during in-class practicums or offline skills lab. It is to be expected, though, because my equipment at home is obviously not as good as the things we have on campus. In my view, it is also essential for us students to get a direct assessment and supervision by professors during our practicums in order to be more skilled as a future doctor.

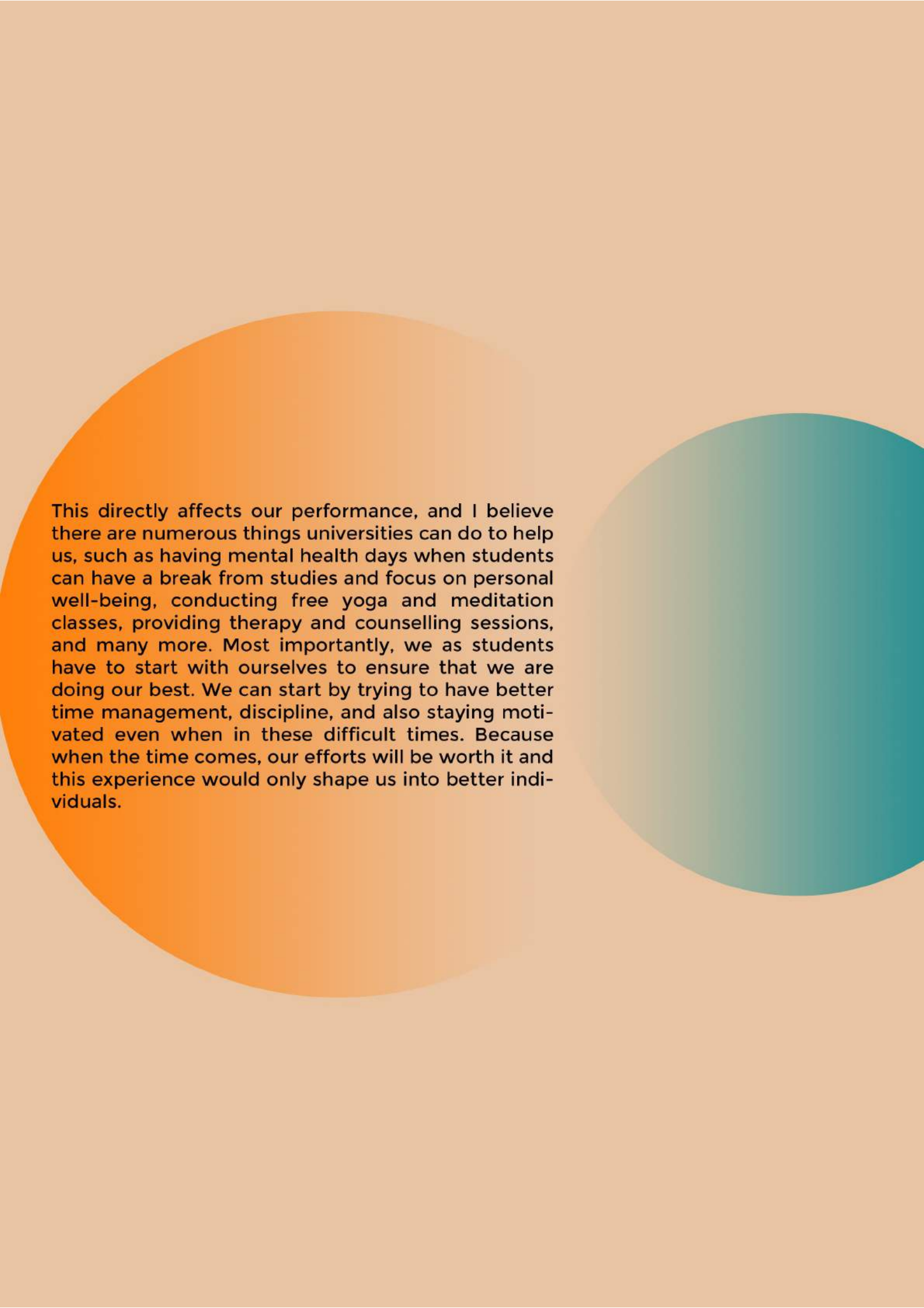
Although previously I have mentioned that one of the benefits of online learning is that it increases my enthusiasm, there are also times when online learning reduces my –and I believe my peers'– interest in studying. I have noticed that some of my peers would only fill out the class attendance sheet without joining the lecture at all. Lots of people I know also expressed their concern, that this online learning environment is detrimental to their motivation as well. People are inclined to underestimate their classes because they know that they can listen to class recordings when they feel like it, but then forget to do so. Due to the lack of direct supervision, it is also much easier to commit academic dishonesty when it comes to exams. I personally feel that it could bring detrimental effects not only to the person committing them but also to the university in general, and eventually the community at large when they finally become doctors.





All in all, I believe online learning has many advantages and disadvantages. I think this experience is quite interesting and fun except for some learning activities that involve direct assistance such as practicum and skills lab.

It is also undeniably harder to study during this pandemic, given its unprecedented nature and socioeconomic events that have happened all around the world in addition to having a deadly virus outbreak. Understandably, students tend to be more stressed, feel tense, and experience burnout from doing school work.



This directly affects our performance, and I believe there are numerous things universities can do to help us, such as having mental health days when students can have a break from studies and focus on personal well-being, conducting free yoga and meditation classes, providing therapy and counselling sessions, and many more. Most importantly, we as students have to start with ourselves to ensure that we are doing our best. We can start by trying to have better time management, discipline, and also staying motivated even when in these difficult times. Because when the time comes, our efforts will be worth it and this experience would only shape us into better individuals.

Life

Unique freshman life in college is what I have been expecting since I was a kid. However, at the beginning of 2020, the God of Luck does not seem to have an interest in standing by my side. As a student from Macau, there are no international flights to Australia. By catching the last ferry to Hong Kong as my original one was cancelled at the last minute, I started my journey earlier than expected.

However, after several months, my life changed dramatically after people got off from cruise ships.

with



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Instead of having a sip of coffee on my way rushing to 9 a.m. lecture, I was woken by my alarm at 8:55 am to turn on my computer, waiting for online lectures. Sometimes when lectures are uploaded online, I just watch them during the weekend or at the end of day, due to my habit of procrastination. I also found that my screen time on social media since COVID-19 has been much higher than before.

COVID

Practical classes are thought to be infectious during that period. Instead of having hospital clinical skill classes, I was taught how to do physical examinations on the screen, which was hard and challenging when I was living alone after all my flatmates left. Having no chances of touching cadavers for anatomy class or carrying out real pharmacology experiments, I was in my room on my laptop the whole day.



Since my parents have been repetitively telling me not to go out, I stayed indoors for almost two months. To make sure that I would not be starved, I needed to order more than \$300 in each food delivery so that delivery fees are excluded. Few months later, when the number of cases has flattened, I bought a flight ticket to go back home. I did not clearly understand what my intentions were, all I knew was that I miss playing outside under the sun. Even though I was born before SARS, I did not have much memory about that. Therefore, several changes in social, economic and political aspects caused by COVID-19 are really remarkable to me.

During this pandemic, most Australian medical students are having online classes. Thousands of students stayed at homes or remained isolated to prevent catching the virus. I hope to share my story (as an international student who lives alone) to more people so to advise others not to face the same experiences I did. If I had opportunity to reverse the time, I would definitely devote my time to something more meaningful such as doing yoga or baking cakes.

As a doctors-to-be, time management is really crucial. As I did not manage my time efficiently, I regretted spending so much time on social media.

Besides, as a person who will be in a profession that reinforces the importance of regular exercise, I did not even stretch my feet for more than 10 minutes but just sitting on the chair whole day.





Instead of being afraid of the disease, I should try to minimise risk of infections such as using more sanitising products.

However, I am not ashamed of this experience as I know that it is a great opportunity for me to grow. Even experienced doctors may have made mistakes. What I learned as a student in this pandemic is to adapt and prevent repeating mistakes in future, I am convinced that after the complete training from medical school will definitely help me to handle my life well under another pandemic.

Health Tourism

Health tourism means travelling to another city or country to receive medical treatment or maintain wellness. It is a visit to improve life and to stay alive as medical treatment at home is inferior to treatment abroad. According to WHO (1948), "Health is a state of complete physical, mental and social wellbeing and not merely absence of disease or infirmity". This definition indicates three components of health - physical, mental, and social.

Health tourism is divided into two categories:

1. Health tourism: People travel to receive medical treatment in specialised institutions.
2. Wellness tourism: Healthy people travel to maintain physical and psychological health.



Health tourism features a long history. About thousands of years past, Greek pilgrims travelled from the eastern Mediterranean to a small area Saronic gulf known as Epidauria. This territory was the sanctuary of Asclepius, the healing god. Within the past, the direction of the travel usually happened from developing countries to the highly developed countries. However, in recent years, people from developed countries visit developing countries for lower priced medical treatment.

Demand for health service is growing worldwide especially for aging people. There are some important factors that influence health tourism.

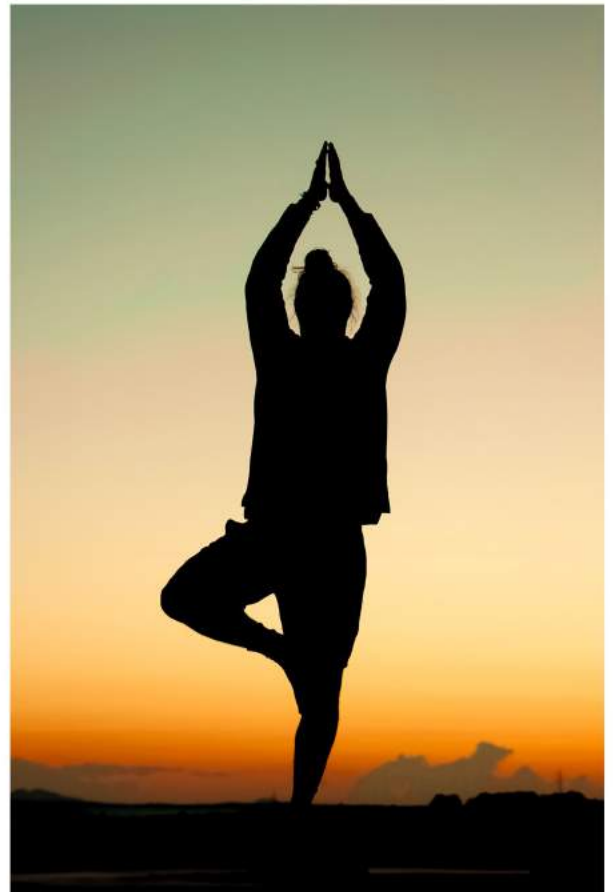
- **Reasonable price:** Health and wellness tourism programmes provide medical and health service at comparatively lower price. Tourists can choose their destination at a price that they can afford.
 - **Quality and quantity:** Tour operators look for medical and health institutions with international quality certificates, adopting international and local standard.
 - **Latest technology:** Health tourist seek for the latest technology available at their desirable cost.
 - **Personal service:** Medical institutions must have specialised staffs to meet the requirements of the tourist.
 - **No waiting:** The health and wellness programmes seek to provide tourism service without having to wait. Wastage of time may be life threatening for some patients.
-
-



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This booming growth of health tourism in recent years has a great impact on the global healthcare and on the host nation. It has influence on financial, industrial, hospitality, and tourism sectors. Its impact on global healthcare can lead to innovations in healthcare solutions, enhancement in the number of professional healthcare, increase in international standards, and emergence of supporting healthcare infrastructure such as medical hotels. It directly contributes to the GDP of a country and acts as a key money grosser. As more health tourists arrive in the country, the chance of financial gain is guaranteed. There is also political advantage too. When one country serves as a major health tourism destination for the neighbouring country and there is constant exchange of treatment and revenue between them, the political relation between those nation is affected in a positive way.

Another industry very closely associated with health tourism is the pharmaceutical industry. When one undergoes treatment or surgery in one country, they are bound to take over the counter drug sold in the same area.



There are some risk factors for health tourism. Some countries have very different infectious endemic disease. It can be hazardous to the patients without natural acquired immunity, especially for the aging population. Recently, COVID-19 pandemic has greatly damaged the health tourism industry. According to the latest IMTJ Global Medical Travel and Tourism, medical tourism industry is expected to be affected until 2021.

Issues on Mental Health During the Pandemic

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Mental health is an important aspect for achieving the complete health goal, as set by WHO, i.e. physical, behavioural, and emotional well-being of an individual. It has a great impact on the thought process, decisions, and relationships of an individual.

The lockdown due to the COVID-19 pandemic has caused a shift in terms of daily work, household dynamics, etc. for people in all walks of life. With the closure of community services and the collapse of industries negatively impacting the economy, a lot of people are facing financial losses and risk unemployment, which have been intensifying the negative emotions experienced by individuals [1].

According to WHO, aside from stress and anxiety, levels of loneliness, depression, harmful alcohol and drug use, and self-harm or suicidal behaviour are also expected to rise [2].

This increase in mental health issues, as compared to 17 years ago during the SARS period, can also be attributed to the enhanced global connections and extensive media coverage. While these serve as a pivotal tool to encourage precautionary and preventive measures, they also inevitably amplify apprehension and ultimately affect the public's psychological conditions [3].

Fortunately, many measures have been taken to minimise the consequences; the UN has released a set of guidelines, urging governments to take action. The WHO has also published a children's book, "My Hero is You, How Kids Can Fight COVID-19!" to help children and young adults cope with the pandemic [4].



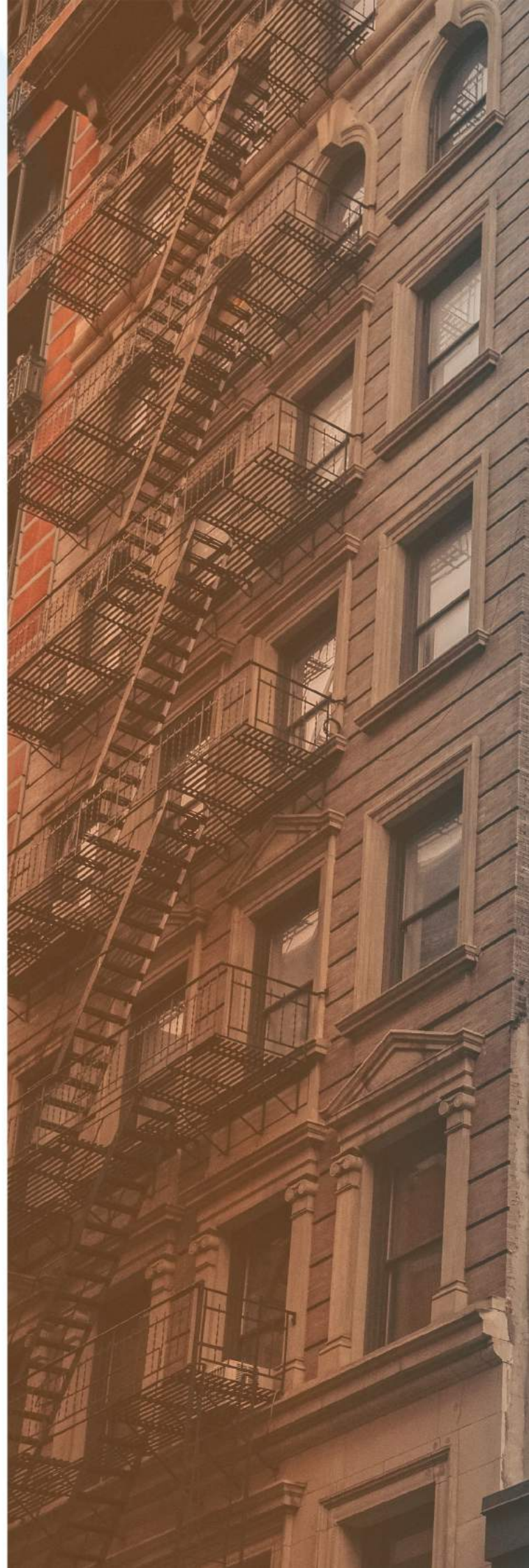
In the very beginning of the pandemic, I recall seeing many people offering to reach out to the isolated elderly family members and help them with their basic needs. Helplines, support pages, and groups were made almost immediately, to give people a safe place to voice their fears and anxieties. I see coping mechanisms and techniques being shared by social media influencers every day.

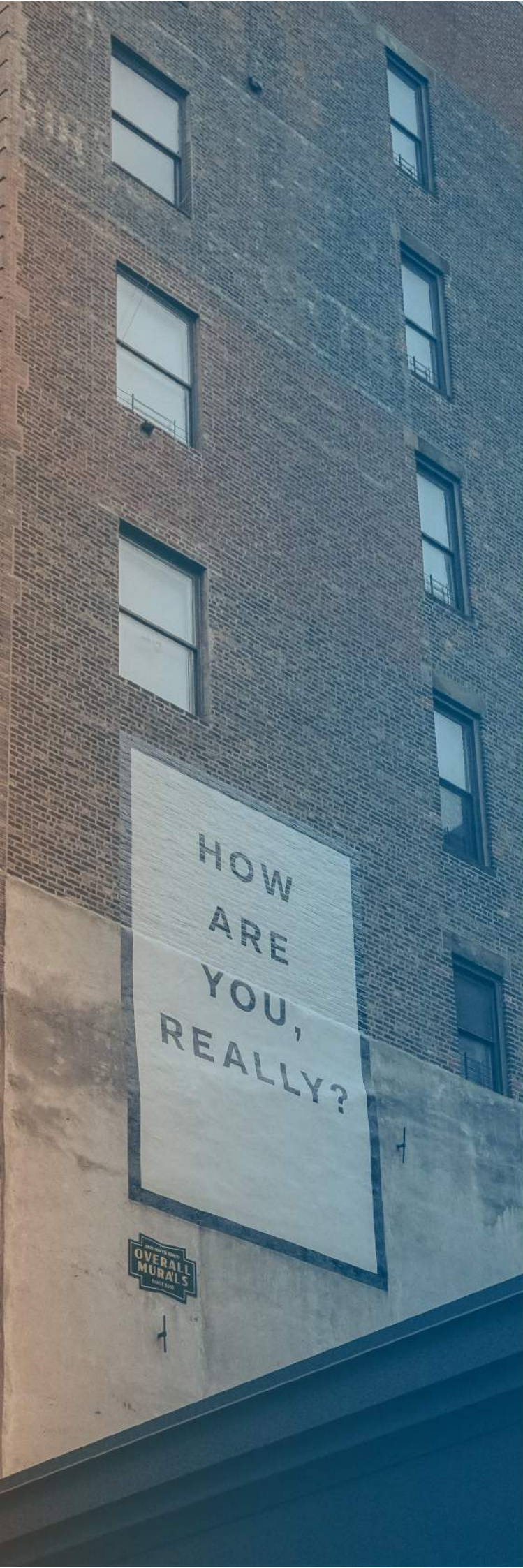
While these actions of solidarity are truly a shining light in these dark times, there is still more that can and should be done. Governments need to make more campaigns to spread awareness on the importance of mental well-being and ensure that mental health is included in the health, social and economic recovery plans [5].

We, as medical students, should also take the initiative to share knowledge and encourage the community to protect and promote the well-being of those around us.

To quote Dr Konstantinos Petsanis, a neurologist who, since the onset of COVID-19, has been assisting in emergencies and screening potential patients; "I'm wondering myself if this corona period is a big alarm, a wake-up call to invest in human capacity." [6]

The mental well-being of the people must not be overlooked and needs to be replaced as the top priority for every country's response to the pandemic, and should remain a core concern, even after.





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Need vs Greed

THE COVID-19 VACCINE

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The extent to which a mere virus can wreak havoc on the world is astounding. The rising numbers of fresh infections and deaths in absolute terms is overwhelming and there is no sign of abating anytime soon. As of now the number of deaths due to COVID-19 has surpassed 1,121,843 as of October 21st, 2020 [1].and has overtaken those due to other major causes of mortality worldwide. Every aspect of human life has been impacted, be it physical, socio-economic or psychological wellbeing. None can consider themselves safe, with symptoms being seen in young and old alike, regardless of immune status. This pandemic will leave a mark so deep, it will change life as we know it, for generations to come. It already has.

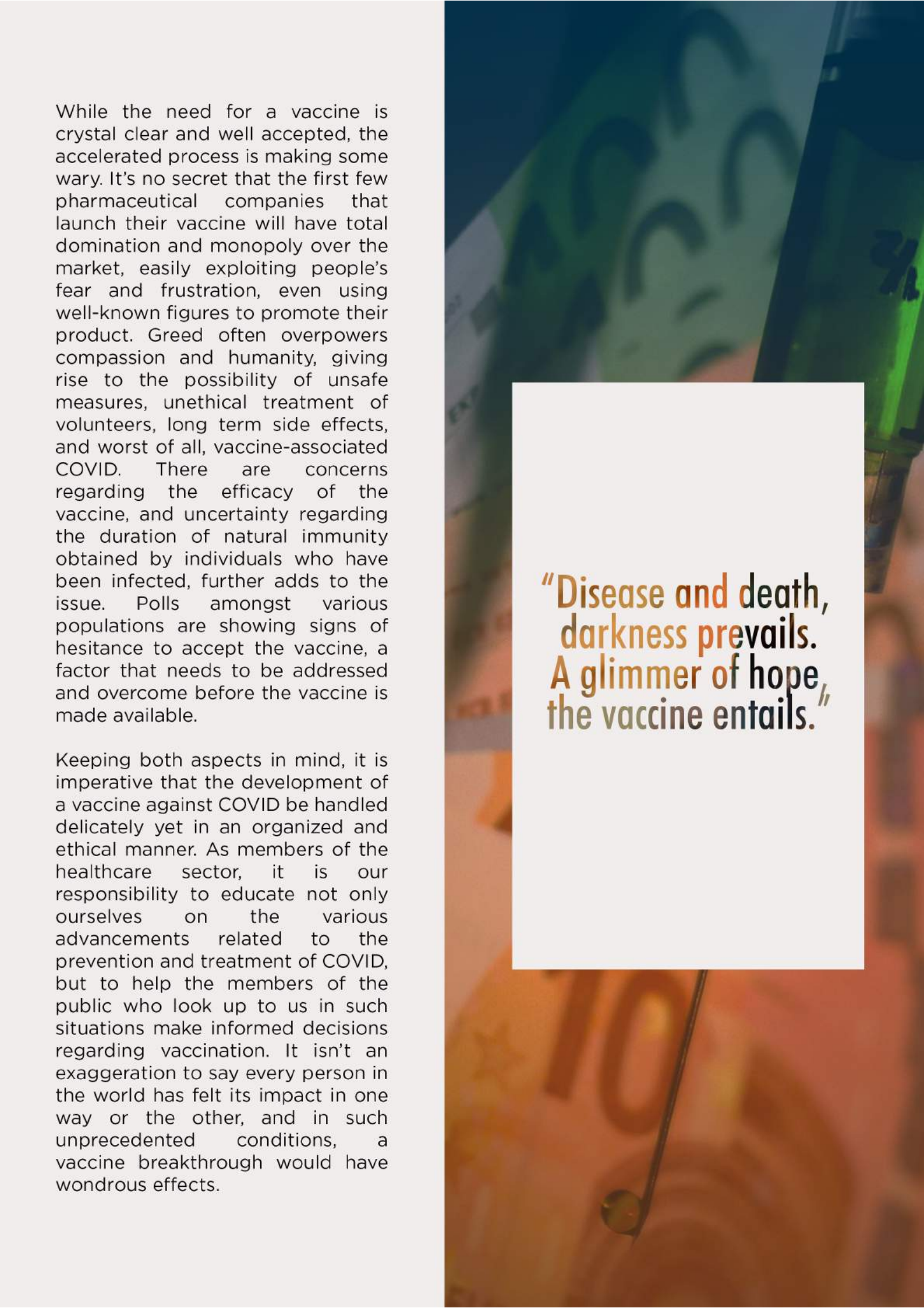
Without a standardised, universally acceptable therapeutic regimen in place for the treatment of COVID-19, the development of a vaccine becomes all the more essential. "Prevention is better than cure," a proverb we've all grown up with, couldn't have manifested in a truer way. Human to human transmission of this virus has created the concept of social distancing, but the associated negative impact is tremendous. The damage is evident in all sectors, with mental health deteriorating and unemployment cases rising daily, calling for measures to resume economic activity. Ultimately, herd immunity is the only solution and a vaccine is the most efficient way of producing the same.

The race to develop the world's first vaccine against COVID-19 is one that is being followed widely, with every other person pinning their hopes of life returning to "normal" on its launch. Vaccines have made major contributions in previous pandemics, as we can see with the measles and influenza vaccines which were developed during similar outbreaks. Improvements in technology and the ever-expanding pool of information regarding the virus as well as our own immune response raise hopes for a highly efficacious vaccine being made available in the near future. Currently 44 vaccine candidates are in the clinical stages, and 154 are in the preclinical phases, leading us to believe we may soon be seeing one or even a few in circulation. [2]



While the need for a vaccine is crystal clear and well accepted, the accelerated process is making some wary. It's no secret that the first few pharmaceutical companies that launch their vaccine will have total domination and monopoly over the market, easily exploiting people's fear and frustration, even using well-known figures to promote their product. Greed often overpowers compassion and humanity, giving rise to the possibility of unsafe measures, unethical treatment of volunteers, long term side effects, and worst of all, vaccine-associated COVID. There are concerns regarding the efficacy of the vaccine, and uncertainty regarding the duration of natural immunity obtained by individuals who have been infected, further adds to the issue. Polls amongst various populations are showing signs of hesitance to accept the vaccine, a factor that needs to be addressed and overcome before the vaccine is made available.

Keeping both aspects in mind, it is imperative that the development of a vaccine against COVID be handled delicately yet in an organized and ethical manner. As members of the healthcare sector, it is our responsibility to educate not only ourselves on the various advancements related to the prevention and treatment of COVID, but to help the members of the public who look up to us in such situations make informed decisions regarding vaccination. It isn't an exaggeration to say every person in the world has felt its impact in one way or the other, and in such unprecedented conditions, a vaccine breakthrough would have wondrous effects.



**“Disease and death,
darkness prevails.
A glimmer of hope,
the vaccine entails.”**

The Need for **Human Rights** in the Times of Cr

By mid-March 2020, more than 150 countries had reported cases of COVID-19, and WHO reported there were more than 200,000 cases worldwide. More than 16,000 people had died, and the numbers were continuing to rise at an alarming rate. This article explores human rights foundation, communities at risk, the school of thought which establishes the same in cases of public health emergencies and the innumerable concerns due to imposition of the lockdown and limitation of freedom of speech in South-Asian countries.

Law of international human rights guarantees people all over the globe the right to the highest standard of health and obligates the governments to take steps to prevent threats to public health and provide medical care to those in need. Law of human rights also recognises that about serious public health threats and public health emergencies, restrictions on certain rights can be justified if they have a legal basis.



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In accordance to the Siracusa Principles, adopted by the UNESCO in 1984, and UN Human Rights Committee, the severity of the COVID-19 pandemic rises to the level of a public health threat that would justify restrictions on certain rights, like people who result from the imposition of quarantine or isolation limiting freedom of movement or whether it's speaking against lack of health resources. Simultaneously, attention to human rights like non-discrimination and principles of human rights like transparency and respect for human dignity can ensure an efficient response amidst the turmoil.

Guaranteeing human rights for everyone poses various challenges for every country around the globe to a differing degree. The public health crisis is quickly becoming an economic and social crisis and the human rights crisis all rolled into one. The COVID-19 crisis has exacerbated the vulnerability of those least protected in society. Unfortunately, it has highlighted deep

economic and social inequalities and inadequate health and social protection systems that require foremost attention as a part of the public health response. Women and men, children, youth and older persons, refugees, and migrants, the poor, people with disabilities, minorities, LGBTQ people, among others, are all being affected differently. It is our responsibility to ensure everyone is protected as well as included in the response to this crisis.

The law of international human rights indicates that restrictions on rights for reasons of public health or national emergency are lawful and necessary. Essential restrictions like mandatory quarantine or isolation of symptomatic people must be administered following the law which strictly achieves a legitimate objective, supporting scientific evidence, is of limited duration, and respectful of human dignity. Governments such as in South Korea, Taiwan,



Hong Kong, and Singapore have responded quite well to the outbreak without enacting restrictions on personal liberty but have reduced the number of travellers from other countries with significant outbreaks. The South Korean adopted proactive and ramped-up testing for COVID-19. It focused on identifying infection hotspots, setting up drive-through testing centres, and promoting social distancing. In Hong Kong, there have been various efforts to promote social distancing, hand washing, and mask-wearing. Taiwan identified patients who sought health care

for symptoms of respiratory illness and had some tested for COVID-19. It also found a system that alerts the authorities based on travel history and symptoms during clinical visits to aid in case identification and monitoring.

However, in several countries, the right to freedom of expression by journalists and healthcare workers who criticise or complain about the lack of resources is questionable. But in some countries, for example Taiwan, they took various steps to combat the virus, including promptly making the right information available on the public forum. Press briefings by health officials and announcements aim to counter misinformation and have helped to calm wide panic and encourage people's assistance within the crisis. Governments of South Korea and Singapore also



published health data, and health officials gave two daily briefings to establish public confidence and promote citizen vigilance.

The world is sure amidst an unprecedented crisis. At its core is a global public health emergency on a scale not seen at least for a century, which requires a global response with far-reaching consequences for our economic, social, and political lives. The priority is and will always be to save lives.



Good Oral Health



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We have spent almost the whole year dwelling in this COVID-19 pandemic. During this outbreak, all of us are constantly being encouraged to stay at home and practise physical distancing to stop the spread of the virus. Going to the dentist for anything other than emergency care is not possible right now. Despite the dilemma, we highly encourage you to take care of your teeth, to maintain good oral health while #StayingAtHome as oral health makes up to be an essential part of your wellbeing.

“During a pandemic, the goal is to optimise your immune system. A healthy mouth frees the body’s immune system to fight off other intruders,” said Eugenia Roberts, DDS, a clinical assistant professor at Midwestern University Clinics in Arizona, to Healthline.

Here are some tips!

1. Eat detergent foods

It is better if we avoid excessive snacking — a habit that is all too easy to adopt when dealing with the stress and boredom inherent in self-quarantine. Starchy foods or drinks easily lead to the acid formation in our mouths, subsequently propelling the dental caries process. On the other hand, there are some foods called “detergent foods” that can help clean your teeth as you chew! Some examples include carrots, apples, celery sticks, cucumbers, and cheese.



While #StayingAtHome

2. Stay hydrated

When your mouth is dry, plaque accumulates and the harmful bacteria in it increase the risk for tooth decay and gum disease.

3. Make sure to check your toothbrush if it is still in good condition

Change your toothbrush at least every three months or sooner if the bristles are frayed. "Every time we flush the toilet, we generate an aerosol spray", Kartik Antani, DDS, a dentist at Napa Family Dental in Albuquerque, New Mexico. Most people leave their brushes and other toiletries merely inches away from commodes. Try to flush with the lid closed. Keep your floss picks, brushes, and tongue cleaners covered. Soaking them in a mixture of mouthwash and hydrogen peroxide also keeps them safe from contamination.

4. Clean between your teeth daily

Flossing or the use of a small brush designed to clean between your teeth is the best way to remove plaque where your toothbrush just cannot reach.

5. Use mouthwash, because why not?

Rinsing with a non-alcohol-based mouthwash twice a day also can help reduce plaque build-up which leads to inflammation of the gums (gingivitis).

6. Telecommunicate with your dentist

"Unless you are in extreme pain or experiencing swelling, you first try to telecommunicate with your dentist, as he or she may be able to give you a prescription or refer you to the appropriate provider." With dental practise being highly at risk during this pandemic, dental treatment is often limited to emergent and urgent cases after a meticulous patient risk assessment to minimise the risk of COVID-19 transmission and avoid cross-contamination. Nevertheless, with the growth and progress of Teledentistry, it is possible to keep track of your oral health by telecommunicating with your dentist to obtain quality dental care while staying at home.

"I understand that this is not the most normal of times, but it is very important to control the things we can right now," H. Dieu Luong, DDS, a New Jersey-based dentist.



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Mental Health in the Time of the Coronavirus

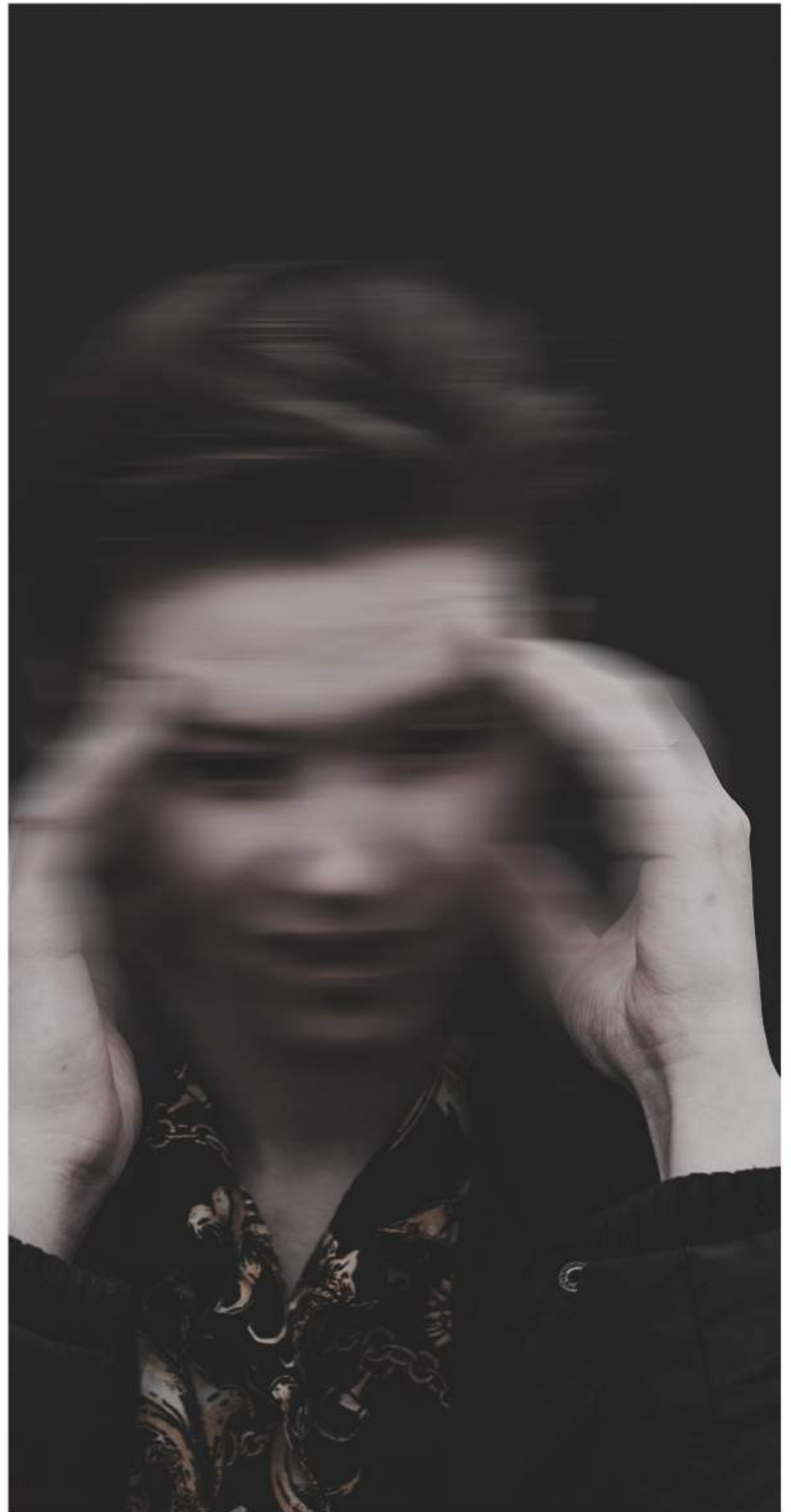


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Ever since the first case of COVID-19 was discovered in December 2019, this disease has disrupted and created havoc in all our lives at the same time. Ensuing the longest worldwide lockdown these few generations have seen, it was something we had never experienced. In the efforts of trying to curb the infectious disease, we somewhat let another detrimental problem spread, something that will probably affect people in the long-term. Mental health has been considered a stigma for a long time, but this pandemic has brought it to light and must be discussed and dealt with to protect everyone. These issues were already an ignored section of medicine, but now the years of underinvestment especially in low-income countries have left us severely unprepared and vulnerable.

As I sit at my desk typing this article, the first thought in my mind is that I have been at home since March, making it the seventh month of confinement. I believe humans are social creatures, they crave contact with others of the same species. I would not call myself an extroverted person, but I had my fair share of social gatherings



before this pandemic struck. Coming off the high of my annual college fest where I was a part of the dance team, getting to meet students from other colleges who started as strangers and soon became my friends, the lockdown came as a shock. What was worse was the internal fear at the back of my mind. This disease, SARS-CoV-2, was so new at that time, with scientists and doctors still trying to figure it out. The symptoms and mode of transmissions seemed to be uncertain with so many theories in the media, which caused more panic in the public who were relying on the media without fact-checking their sources. Such outbreaks typically lead to widespread panic and fear. The social distancing can lead to alienation of people infected, related to patients or even survivors. I first-hand got to see this as my mother is a doctor. She has distanced herself in a small room in the



house away from us, having her own clothes kept separate and using a separate bathroom. To someone whose daily tradition was to sit together with their family for dinner and have a laugh, this was a drastic change. I remember yearning to hug her, but she always refused, being alone to protect us.

The medical profession is already a stressful and challenging one, even without a pandemic. The sudden climb in hours and excessive workload can cause burn out. In many countries, healthcare workers are looked up to like gods, and the helplessness during the beginning months of this disease leads to self-criticism and cynicism.



Even without a pandemic, good mental health is the backbone of a properly functioning society. But during a pandemic, it can affect how susceptible we are to the virus. Historical examples show the harmful effects of earlier pandemics on the mental health of a population.

A meta-analysis found that depression, anxiety, impaired memory, and insomnia were present in 33–42% of patients admitted to the hospital for severe acute respiratory syndrome (SARS) or the Middle East respiratory syndrome (MERS) and that in some cases these effects continued beyond recovery. In the case of COVID-19, to prevent the spread of the virus, schools, colleges, companies, malls, theatres, and countless other things that were once taken for granted have been closed. Disruptions to industries and businesses are disproportionately affecting people. Ones with salaried jobs are far less likely to be affected than those with informal, daily wage jobs, which include a substantial proportion of the workforce in lower-income countries. Frontline workers are experiencing increased workload and trauma, making them susceptible to stress, burnout, depression, and post-traumatic stress disorder (PTSD).



The isolation has heightened the loneliness for many people which leads to a rise in substance and alcohol abuse. It also increases domestic violence in certain households. When people were out of their houses a substantial period of the day due to their jobs, the victims would usually be safer. Being confined together for so many hours, not being able to step outside can make people irritable. Short-tempered ones will be more affected and lash out at their family members. This is worse for people living in small houses where each member cannot have their own personal space. I speak from personal experience as the maid who worked at our neighbour's house was a victim of this. When she spoke up about it, my neighbour helped her leave to a relative's house for safety. It has also caused addiction to increase. People can have gotten addicted to various things: alcohol, food, social media, video games, etc. On one hand, where social media can be used to check in on friends or relatives living alone far away, it can also get addicting and the screen hours can shoot up since there was nothing else to do with that time.

According to Dr. Hannah Rettie from the University of Bath's department of Psychology, people have been unsure when they would see relatives again, job security has been rocked, there is an escalated threat to many people's health. Hearing about the disease in every news outlet with varying facts causes excessive saturation at an individual level. It leads to paranoia, misinterpretation of sensations in the body and increased unnecessary visits to the doctor. On the other hand, a person might avoid the hospitals even when they actually present the correct symptoms after seeing the isolation that the patients are kept in. They have no emotional support during their admission period since family members are not allowed to visit, which can affect their recovery as well.



“Everyone is in the same boat and it is up to us to prevent others from drowning”





This lockdown has also affected the motivation and drive we normally have. Some people have committed themselves to learning new skills and keeping that inner fire alive even for so long. But most have let themselves go, finding it hard to find the motivation to do the simplest things.

I myself felt the repercussions of this lockdown. Being a medical student, studying every day has been instilled in our brains, but there was no motivation whatsoever since there was no deadline for me to focus on. A few days I felt like a zombie moving from my bed to my couch to watch TV, eat, and then fall asleep again. Facetiming my friends kept me preoccupied till online lectures began. But still, the feeling of blankness did not escape my mind. I then came across this YouTube video about yoga. Something inside me told me to try it for 15 minutes that Saturday evening and since then I did it every day. That brought peace and solace to my mind. I suddenly had the motivation to try new things like cooking and working out a little every week. I got back to hobbies like reading novels and sketching, things that I had completely neglected during college days. I started appreciating the small things in life, like staring out at the birds on the trees through

my balcony with a cup of hot tea in the evenings. Our family established new traditions like cooking together every Sunday or having board game evenings every few days.

I believe that it is foremost our job to take care of our own mental health and then check up on others close to you. Maintaining a routine helps tremendously since it gives your mind something to look forward to. We should see the bright side of the lockdown. This isolation has given us precious time to be with our families which normally was not possible due to our fast-paced lives. Nature around us can also bring peace and happiness if we observe closely, birds chirping sound melodious instead of early morning alarms. Staying away from speculations and fake news about the virus is exceptionally important as it can help reduce anxiety. E-Therapy has become very popular now and contacting a doctor to talk can be helpful. Trying to exercise a little or doing yoga keeps the mood positive. Relax and try to look at it as a long holiday from our lives. Take the time to reach out to old friends that drifted and catch up, ask about their lives, how they are coping. Everyone is in the same boat and it is up to us to prevent others from drowning.





COVID-19: What's Next For Humanity?

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**"I was not born to punish you,
I was born to awaken you."**

Words of wisdom signed by none other than the virus that lurks in thin air around and within us.

This is a frightening time. The virus is called “novel” because it is new, and what is new is often terrifying. We don’t know enough about our new microscopic enemy. Scientists, clinicians, and policy-makers are all working tirelessly with limited data and learning along the way. Consider that many diseases that we regularly face have been observed, reported, studied, and treated for decades; some for centuries (although with less success than now). This one has been “on our radar” for only four months.

Times like these remind me of something I read in my textbooks when I was barely mature to understand the definition of a ‘virus’: Black Death, a multi-century pandemic that originated in central Asia and began spreading westward along major trade routes. Upon arrival in the eastern Mediterranean, the disease quickly spread especially through sea traffic to Italy, Greece, and France and later throughout Europe by land. The plague killed an estimated 25 million people, almost a third of the continent’s population.[1] Our ancestors weathered it, we will get through this too. The coronavirus’ mortality rate lags far behind the infectious nightmares that human ancestors passed through, especially since medications, vaccines, and equipment can be mass-produced, food is widely available, and information can be disseminated in an instant.

It will take at least another 6 months before an effective vaccine is rolled out to be employed on all demographics of the human population, and during that period, many of the behaviour changes foisted on individuals and businesses will stick.

The most comprehensive shift will be when people realise they do not need to be in the same building to accomplish certain things, which we term as social distancing. As a result, there will be less face to face interactions at work, people will reassess the need for business travel, and many conferences will turn into webinars. Innovation and digitalization will be essential for survival, and most of the entrepreneurs will have risen to the occasion.

Another anticipated shift may be that large gatherings in a context will become smaller or less frequent. Businesses that rely on people coming together will either adapt or collapse—particularly restaurants, nightclubs, gyms, movie theatres, and shops.

An undercover question will also be decoded; when did physicians and health care workers become expendable pawns? When did they become unwitting participants in the game of Corona roulette? It would be when hospital systems began to mandate that, in spite of known exposure, in spite of even a positive COVID-19 test, physicians (and their colleagues) continue working.

Therefore, if history is any indication or vindication, if the past is any lens for the future, this is still a time of tremendous hope; especially for people, all the people alive today, whose resilient ancestors survived through them to this very day.



People will have to be mindful that dwelling on past economic collapses and outbreaks, for instance, the 1918 Spanish flu, Cholera outbreak, 2015 Ebola outbreak, 2001 technology bubble, and 2008 real estate crash will not do them any good except learning from them. With the benefits of science, technology, satellite maps, medical, and biological advancements, we will end up doing a lot better than our past efforts.

The positive thing about this pandemic comes in the form of service, as a wakeup call in terms that we will be more prepared to deal with the next global catastrophe, which may loom in the form of 'missiles' or a 'microorganism', 'epidemic' or an 'economic collapse.' Prepared to sock away enough funds and medical supplies which are not to be scathed otherwise but used timely and effectively only during times of emergencies.

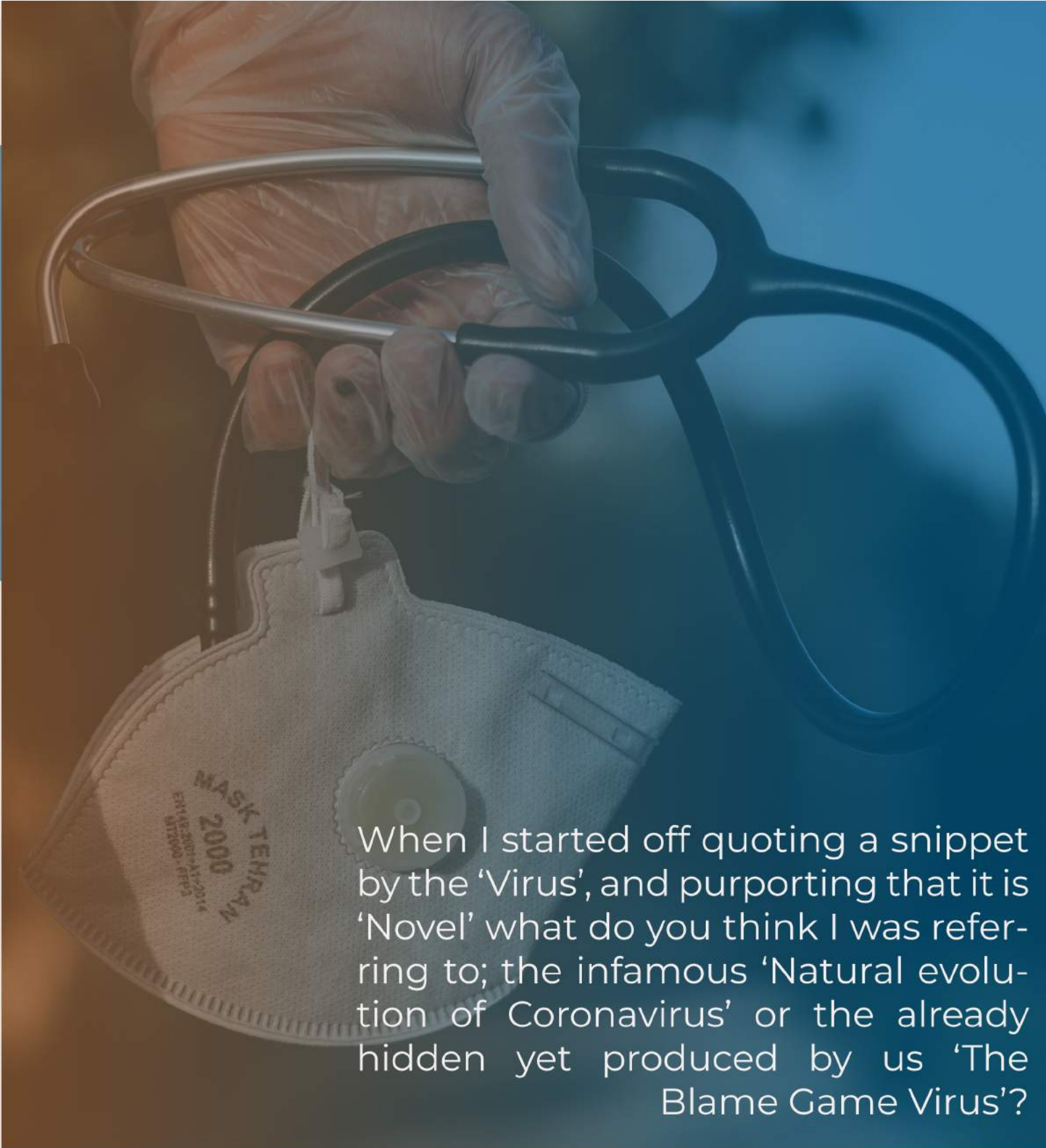
Even though being the epicentre of the novel virus, there is a great deal to learn from a couple of countries who took massive advantage of the months of January and February in heightening their medical and testing facilities and barring people from accumulating in social gatherings. They had successfully restricted the virus in affecting only 0.1% of the country's population and dated as of today, the number of cases is dramatically dropping.

The staggering figures of 22,256,220 confirmed cases and 782,456[2] confirmed deaths and counting are enough to point that our morals, values, and codes are only as good as the world allows them to be. One sign of trouble and they are taken a hit. It's far easier for people in

any country to point the finger of blame elsewhere—be it a country where it emerged, or its neighbours, or easily scapegoated communities like migrants—than shouldering it themselves. Millions of people across China have shouldered immense sacrifices to contain the virus once the outbreak began, efforts that have been praised by the World Health Organization (WHO) and others, and there is increasing bitterness that the country is still bearing the brunt of the blame from some quarters. There are many more unsung heroes out there doing their part to prevent the circulation of the virus and if it were not for the age of social distancing, I would stop them on the streets to click selfies.

I do not want to think it is a biological warfare and it is too late to blame countries or governments but post this, the world will evolve and change. This is not the time to panic or point fingers, but to pull out all stops no matter how trivial to contain the virus for we will rebuild, the economy will spur and businesses will bounce back positively. To the government and federal officials who are mulling over the economy which is already seeming to bounce back, allow me to say that it is much more reversible to bring the economy back than bringing people back to lives.

Become the force of confidence around those we need and strengthen our relationship. The bright side must be acknowledged for what it is and why it exists. The news of ozone layer healing and nature restoring its balance is certainly a silver lining.



When I started off quoting a snippet by the 'Virus', and purporting that it is 'Novel' what do you think I was referring to; the infamous 'Natural evolution of Coronavirus' or the already hidden yet produced by us 'The Blame Game Virus'?

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The Summer Lockdown

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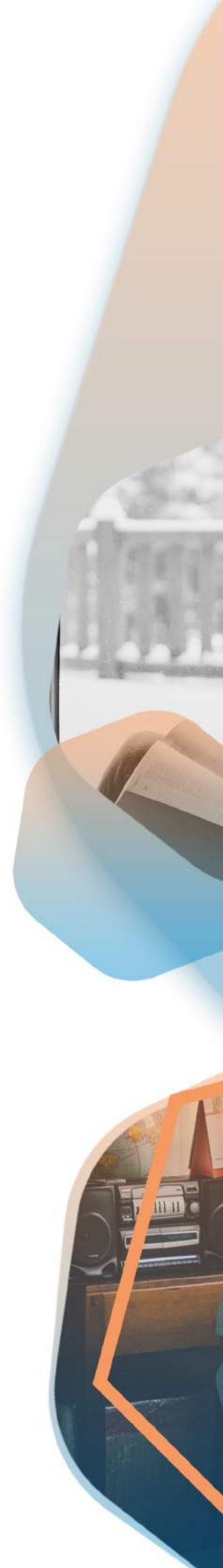


Despite the whole world being struck with the fear of the COVID-19 pandemic, there were people like me who were silently grateful for the opportunity to spend some time with my family. Born as the “lucky” single child to my well-accomplished parents, my life has always looked a handful to others. 20 years passed in a flurry, accomplishments made are several, but the price that we had to pay was quality time with family. I lived with my grandparents so long to get proper schooling (Mom and Dad got frequent transfers) that this whole lockdown sounded like a perfect excuse to be finally back home and spend time with my parents.

Ever since I reached home, I kept spitting callous words like “thanks to Covid, I’m home”, “I hope the pandemic lasts a bit longer”, “probably lockdown is a good thing”, and so on. One evening when I said something similar, my mom cut me off in the middle of my monologue saying, “you are an insensitive idiot, aren’t you?” While I looked positively flummoxed, she continued...

“Lockdown is nothing but an unpleasant necessity to contain a pandemic and not actually a vacation for most people. Most people have lost their income, the economic growth rate has decelerated, there are so many other issues raging within families which wouldn’t dare cross your wildest dreams...” Okay, the last part increased my curiosity and I asked her “issues? Like what?” That’s when I heard the shocking story of Krish.

What’s more joyful to a 12-year-old than indefinite holidays? No school, no homework, no deadlines. Yet Krish looked morose when he got home from school. He had studied at a boarding school far from his home since he was 5. His dad worked abroad and his mom was a doctor who was constantly busy that she could barely spend some time at home. Krish always seemed a happy child, or at least, that’s what his parents thought. They flooded him with riches and materialistic goods before he even asked for it.



The first week of “lockdown vacation” was uneventful except for his reduced interest in food, even towards some of his homemade favourites. As the days trudged by, his mom noticed that her son was not able to sleep at night, and even when he slept, he woke up screaming in the middle of the night dreaming something terrible. Things got really worse as the boy grew more restless and nervous all day.

Krish was taken to a paediatrician first and then to a child psychiatrist where they diagnosed him to have cannabis withdrawal. And after extensive counselling sessions, a dark story of drug abuse in young children came to light and how the senior boys at school introduced the noxious habit to their juniors, especially the rich ones just to use them later for uninterrupted pocket money to sustain their

supplies. The issues were brought to the notice of the school authority and things fixed now. As Mom almost finished, I was left with mixed emotion - sad, angry, helpless and so many others. “So, Mom, how’s Krish now?”, I asked. “once your home quarantine days are over, let’s go visit him one day. Yeah, he is a lot better now. And maybe you are right, maybe due to this lockdown, a family got their child back, that counts as a silver lining, right?”

“Mom, you are a sentimental idiot, aren’t you?” Both of us laughed and silently thanked for the family we have who stay close even when we are far apart.



The Turn in the



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The world is always revolving in change. It is really interesting to see how we adapt to changes that happen in our lives and to transform into something that we never experienced before. Well, this is in fact the hot news during the new normal, the online education system.

The new normal has made me realise about the acceptance that has to be brought by us in confirming ourselves of the newer differences that we see. For me, being a medical student, on an outlook, was never easy especially in this pandemic, where we are restricted to our own vicinity with lesser interactions with family and friends. This is a really big challenge in the process of restricting myself and I'm pretty sure that it's the same with all the other students who are with me on this stage. The pandemic has removed much freedom in life which I enjoyed earlier. This change is different to the other changes which I observed in the earlier life and is much different in its impact. It has affected my close relations with other people and how I am supposed to be in all means. The life before the new normal had in fact no limits placed to the usual routine activities. It was such a time when there were even no limitations in where I go.

The daily schedules that I used to do started with life in the college, lectures, group discussions, exams and obviously study with hard work. One of the most essential ingredients that I used to enjoy in the combo was also the life outside college with friends and the time for enjoyment. The new normal took it all from the fun that I had to balance everything. The system is totally changed for now. From the face to face classes to being online for lectures and study, it's indeed a fresh transition. In other words, the virtual world has opened up with opportunities on the other side, but also with the demand of a very good internet connection to be able to reach our targets. What we see now

Global Change

are all through the online mode of delivery, especially when it comes to the learning platforms and activities. Hence, I miss the feelings that existed earlier when it comes to the physical relation that we shared with people around us.

The global pandemic has thus questioned me a lot on my existence when we take turn to renew ourselves to the digital media. But thinking outside the box, it has taught me greater lessons in life to follow. I'm now teaching myself to be fully fledged with the system to adapt more and to be more productive. My thoughts now comprise an assessment on the pandemic system about why we need to be in virtual mode. With all the health safety measures in mind, I have decided myself to be more disciplined, organised, and to have total control in this situation on what and how am I supposed to adapt.

This change has made positive effects on the other hand. It makes us learn that in life, we must be ready to face any challenges met. Hence, there are no more rooms to complain. With the new changes and the transition to the virtual world, it all brings me to the point by placing the need in myself to keep in touch with the system and to be more enhanced. This marks the fact that nothing in fact can kill me in my journey to meet my dreams as it's always true and triumphant. The spirit in me shall still keep burning even in the new normal. Though it has questioned me much in the journey, it also helped me not to be weary in achieving my goals.

In conclusion, the changes about the new normal have built many qualities in a student like me in educational terms to face my enemy, which is the current situation I'm in now with more strength and confidence. To be fortunate is to have survived life with the goals and passions in mind without stepping back. I hope this will inspire more people, help them to be motivated, and be in control to adapt to the global changes by taking turns to realise how important and essential it is to make life stay in its full growth and commitment by making it precious.



#GrowTogether amidst PL

Five tablets for feelings betrayed and neglected. Two doses to arrest personal pressures and release inner melancholy. One bottle for a life seemingly defunct, incomplete, and crestfallen. The counter goes on and on until she faltered away from her consciousness and was subjected to a gastric lavage. This is the only way my good friend, Lay*, thinks she could escape from all depressing emotions that drown her leading to her anti-depressant prescriptions and psychotherapy every week. And recently, this too, has become a familiar scenario reflecting the current picture of those undergoing a developmental conflict on their bout to explore independence and a sense of self, to temporarily unmask pain and deal with coping especially during this time of pandemic.

Astray, like nowhere to be found, she was. For months, Lay had no choice but to lock herself inside her mini apart-

ment, far from her loved ones and family in another island, and gone seemingly incognito into someone she was not because of the taxing virtual learning stresses amid the 7 month long national community quarantine and counting. In spite of the looming raising of that white flag in the middle of medical school and the close-to-cutting-pulsations off, she diverted herself and found refuge to a green space.

Greens breathed vitality to Lay's barren and humdrum disposition. Caged in a studio-type nook on forced home lockdown due to community restrictions, variegated foliage seems to wrap her in comfort as caladium, spider plant, and peace lilies basked on top of her study throne while sansevierias embrace her sweet-dream cradle. To top it all, three little subspecies of pothos strewn in the whole room with her tiny little 'bean' as she calls it, the neon pothos which is her most favourite - signs of life in a country on a perturbing and extended pause.

This ingenuity to nurture green babies became the newest movement of Filipinos amid the pandemic, which also paved way for petulantly tagging the so-called "plantitos" and "plantitas", a hybrid of the word plant and tito (as in uncle) or tita (aunt), to be born. Plant parenting rampantly rose to scene as a means to while away excess time of doing nothing at home, but to some plantitas like Lay, this wave brought about a pe-



ANTdemic

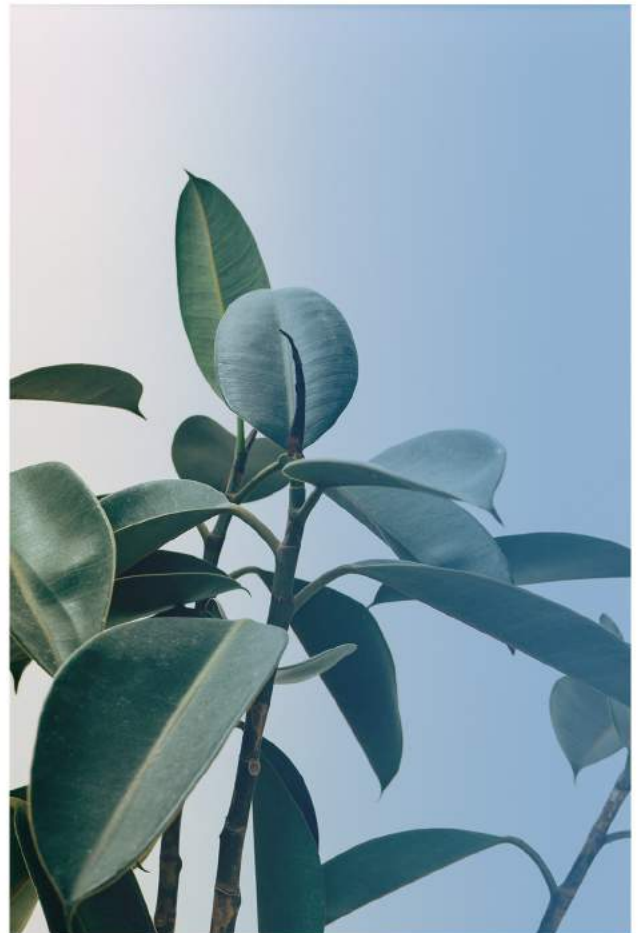
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cular display of environmental awareness that also cultivates a calming atmosphere towards self-care, healing, and promotion of her mental well-being.

"If they are thriving, it shows how I am able to provide good care for them. Only when I am able to take care of my own needs will I also be able to address what others need. And if I can do so, then it reflects balance in my time, focus, and priorities. After all, a sound mind boils down to balance," Lay happily shared. To her, while medical students are bombarded with loads of requirements and thick readings on top of synchronous virtual conferences, seeing plants thrive actually gives a feeling of reassurance that one's care has significant effect on others – "your care gives life, thus you matter," she added.

Houseplant mania made waves on social media immediately when the 'plantdemic' hit the country by storm as people made trends flaunting their fresh, indoor jungles which was subsequently emulated by many. Personal testimonies account that plant parenting promotes a sense of calmness, safety and relaxation. To med students who



turned into instant indoor jungle groomers, plants deliver good air quality, ease eye strains, and lighten mood environment while studying and attending online classes thereby reducing feelings of anxiety and virtual fatigue.



Withering Mental Health Across the World

According to a World Health Organization (WHO) survey, COVID-19 pandemic has taken a toll on the mental health of millions of people across the Western Pacific region and around the world which disrupted the delivery of mental health systems in 93% of countries while the demand for it continues to increase rapidly. The disease was identified to be stressful for people as fear and anxiety about a new disease and what could happen can be overwhelming and can cause strong emotions in both adults & children.

In a systematic review (Xiong J. et.al., 2020), symptoms of depression were assessed in 12 out of 19 studies. The prevalence of depressive symptoms ranged from 14.6% to 48.3%. Many risk factors were also identified to be associated with symptoms of depression which highlighted that females tended to be more vulnerable to develop the symptoms of various forms of mental disorders during the pandemic, including depression, anxiety, PTSD, and stress, as reported in their included studies.

After it swept across the world, the unprecedented effects of the pandemic have instituted efforts to mitigate the impact of the virus' spread through physical distancing, which for one, resulted to changes in behavioural patterns. This "lockdown", that mandates people to stay at home to further break the chain of transmission, caused likewise a shutdown to the day-to-day routine and functioning of an individual.

The Philippines, having already one of the highest rates of depression in Southeast Asia even before the COVID-19 pandemic ensued, affected more than three million Filipinos as per report by WHO. This unfortunate reality was also validated by the rising monthly hotline calls regarding depression as noted by the National Center for Mental Health (NCMH) ranging from 80 calls before lockdown to nearly 400 around September this year. Mental illness was also identified by the National Statistics Office (NSO) as the third most prevalent morbidity in the country where around 88 cases of mental health problems for every 100,000 Filipinos have been found out from Department of Health (DOH) records in 2005. In the advent of a pandemic, nevertheless, this is indirectly mirroring the true extent of the mental health problem in the country.



From WHO's health definition, good health includes psychological and spiritual wellbeing, and one way to promote this health aspect based on recent trends is through (urban) gardening, which is one of the most popular ways where people can connect with nature globally. About 1 in 3 adults or almost 120 million in U.S. engage in gardening as a hobby regularly. In other countries where surveys of gardening have been done, the numbers were similar, including Japan (32 million or 1 in 4), the U.K. (23 million), as well as Sweden and New Zealand.

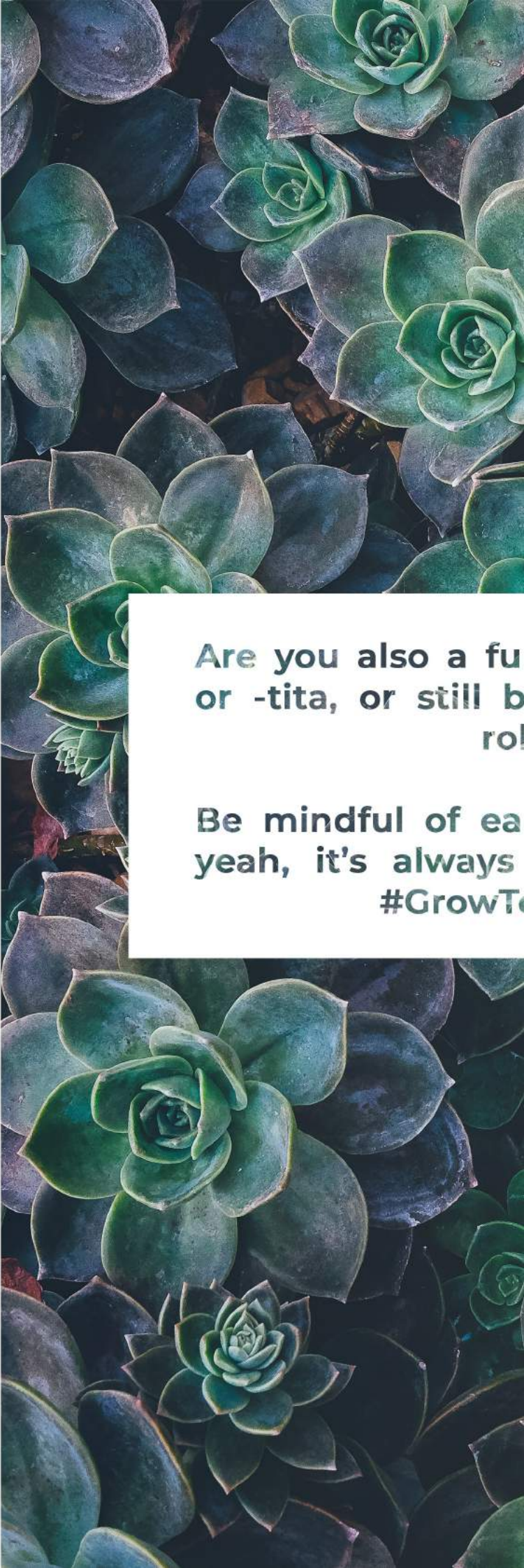
Studies have shown that regular gardening enhances overall general well-being, life satisfaction, and cognitive function since contact with nature is seen to be a cost-effective, alternative preventive therapy. The depression, stress, anxiety, and loneliness brought about by social isolation measures can develop inevitably, however cultivation of ornamental plants may be an option to aid in enriching one's mental health and the wellbeing of various populations.

Sprouting Green-fingers

To environmental and design psychologists, having plants at home can reduce stress levels and help one mentally refresh from different kinds of exhaustions, adding that the colour green itself is linked to improved creative thinking. Participating in plant care activities, therefore, was found to reduce stress, improve depressed mood, and strengthen social engagement.

Plants connect with people and the cultivation of indoor plants becomes another option into getting closer with nature. While on social isolation, we tend to spend indoors most of the time and in the setting of multigeneration families in one roof, ventilation rates may be reduced. Thus, the quality of air must be maintained in order to create a stress-free environment, hence, green spaces for indoor plants will be of much value during these times not to mention that plants remove pollutants and maintain safe breathing environments as per our basic science knowledge tells us.

Seventy-seven studies were also conducted in one systematic review in U.S., Brazil, the U.K., South Korea, Japan, Taiwan, and the Netherlands about the impact of gardening on health and well-being published in 2020 British Medical Journal. Studies investigated interventions ranging from viewing gardens and taking part in gardening activities which consequently brings us to presently what is known as horticultural therapy. Horticultural therapy (HT), or sometimes known as social and therapeutic horticulture, entails the engagement in gardening or other plant-based activities used to improve both physical and mental well-being of an individual that is recognised as an effective form of therapy since the Egyptian era. It is believed that when people engage in HT, they take on the role of caregiving. By tending to these green babies then, people receive an increased sense of responsibility or purpose, just as what my friend Lay relatedly revealed, as "it increases self-esteem while calming the soul."



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To date, while majority is still engulfed by the anxiety of the uncertain times, priority needs to be given to the promotion of mental health and self-care especially to medical students at that. Sometimes, we may opt to remain silent as it deems peaceful and comforting in solitude, however during these plantdemic moments, we must realise that there is no time to stay dry. When channeled to meaningful actions, the depressing feelings in the middle of these trying times will surely give birth to a beautiful purpose. Know that no matter who you are, someone is capable to water you and nourish you, listen and care about you, just as how you need to regulate watering of your own plants in order to flourish and grow.

"I actually talk to my plants because I read a scientific journal that showed the benefit of talking and music to plants. In this pandemic where most people are isolated, I find it calming knowing that there are other organisms that thrive in my environment (let's not forget plants are living organisms as well)," a few inspiring thoughts Lay shared which helped her in coping.

Now as we encounter more Lays in our lives, may we remind them that the negative emotions they're feeling is like a bud, sprouting and temporary, but soon can potentially blossom into an amazingly viable succulent when poured with all the care it deserves. Just like plants, if you take good care of your own emotions, you'll also see yourself grow and bloom. For no tablets, capsules, or overdoses can heal the mind more than a plant thriving on sight, reminding that someone's there ready to care and be cared, to live so as to give life.

*Lay – not her real name.

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DIABETES:

An Impending Pandemic

Type 2 diabetes, the most common type of diabetes, is a metabolic disease in which there is failure of target tissue response to normal insulin, called insulin resistance, leading to hyperglycaemia.

It's a complex disease which involves genetic factors, environmental factors, and inflammatory state. The major risk factors for diabetes include genetic predisposition, obesity, sedentary lifestyle, uncontrolled blood pressure, and hypercholesterolaemia.

The pandemic circumstances we are living in increase most of these risk factors, accelerating the onset of the disease.

Most families dread getting their regular check-ups done outside due to fear of infection.

The procedure of testing being as simple as pricking your finger with a lancet, place a drop of blood on a test strip which when into the meter, displays your blood sugar level, families should consider purchasing a home glucose testing kit or HbA1c testing kit. Regular blood pressure and cholesterol check-ups should also be considered by the population with many risk factors.



While most people might be finding enough time to cook proper balanced meals and consume, there is also a category who are entirely dependent on cooks or maids and hence now opt for easy cooking or less expensive food or what we call as “convenience meals” which has a high probability of being unhealthy and less nutritious. This practise should be avoided. Especially for those in the risk group of diabetes, increased intake of whole grains, fibre food, fruits, vegetables, healthier fats and decreased intake of sugars, processed foods and meat is recommended. Apart from that, a good daily eating routine should be maintained in order to prevent hormonal fluctuation in response to glucose which can occur due to irregular eating times leading to insulin resistance, ultimately causing diabetes. Alcohol and smoking must be limited as well as alcohol consumption promotes weight gain, increase in blood pressure and cholesterol. Smokers are twice as likely to develop diabetes as opposed to non-smokers.



Many of our hormones are released according to a fixed circadian rhythm or the internal body clock. It's quite possible to deviate from daily routine especially for students and employees who work at home. A proper circadian rhythm and adequate sleep is equally important to prevent diabetes.

While the pandemic has got some swamped, those who stay at home run a risk of leading a sedentary lifestyle. It is understandable that folks are stuck to desks and laptops at home currently, and of course with the virus out there and gyms shut down, it's definitely demotivating to burn those calories.

Come to rescue the workout apps! There are many wonderful paid and unpaid apps: Nike, CureFit, FitOn, to list to a few. They all offer great plans, checkout what works for you. Staying active and regular exercise is a must to prevent diabetes, it helps control weight, reduce blood glucose levels and also help with cholesterol control.

Those under the obese category should compulsorily have a strict diet and exercise regime. Purchasing a weighing machine would serve as a good motivation to keep going as well as measure BMI from time to time.

It's that year where most of the world is going through a lot, be it due to infection or unemployment or finances or loss of dear ones or uncertainty of exams or lack of social life. Stress raises blood sugar levels, activates fat cells, impairs glucose tolerance, increases insulin resistance and impacts blood pressure. Apart from that, it can also cause secondary effects such as weight gain due to stress eating or binge eating. Practises such as meditation, muscle relaxation techniques would help with management of stress. There are great apps and instructional videos out there.

We have esteemed medical student organisations worldwide and enthusiastic volunteering groups which emerged during this pandemic, an initiative should be taken to conduct diabetes education programmes. The geriatric population and illiterate population would require guidance for using home test kits. We can volunteer and organise to educate people on using the kit, emphasising precautions such as application of antiseptic before pricking a finger with a lancet or at least wash and clean hands before the procedure, fasting for eight hours, and educate about normal blood sugar values. Apart from that, the population should also be educated on risk factors, common symptoms of diabetes, proper diet, and exercise. Some other initiatives that can be taken are conducting live meditation for participants on Zoom with an instructor, fitness groups on WhatsApp.

For those already tested with diabetes, purchasing ketone testing strips for diabetic ketoacidosis, good stock of medications, a well-balanced diet and exercise is suggested for management during this pandemic.

Diabetes is a global epidemic affecting an estimated 382 million people worldwide. The WHO projects that diabetes will be the 7th leading cause of death by 2030. An estimated 4 million people die annually from diabetes complications. Statistics show an unfolding diabetes pandemic and the current scenarios we are living in is contributing to the speeding up of the process. Realising the gravity of it, the suggested interventions must be considered.

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THE ROLE OF NUTRITION IN THE FIGHT AGAINST COVID-19



The global health emergency of COVID-19 has resulted in significant impacts on people worldwide, affecting global health, quality of life, and leading to a significant dip in economic growth. The causative agent of COVID-19, a new strain of coronavirus, now known as the severe acute respiratory syndrome coronavirus (SARS-CoV-2), emerged in Wuhan, China in December 2019.¹ The disease spread rapidly across the globe within a short period and was declared as a global pandemic by the World Health Organization (WHO) on 23rd March 2020.² As of 25th October 2020, data from the WHO has revealed that more than 42.5M cases and almost 1.1M deaths have been identified in over 210 countries and territories around the world.³ In comparison with previous coronavirus outbreaks, in particular, SARS and MERS, lower case fatality rate and higher transmission rate have been reported for COVID-19.⁴⁻⁷ Clinical features of severe COVID-19 infections resemble that of SARS and MERS, which include fever, fatigue, dry cough, diarrhoea, myalgia and dyspnoea.⁸ Complications reported include acute respiratory distress syndrome (ARDS), RNAemia, acute cardiac injury and secondary infection.⁶

In response to the global health challenge, healthcare workers, researchers and governmental bodies across the globe have been pushed to their limits to battle the disease. To date, specific vaccines and antiviral therapies against COVID-19 have yet to be developed. However, it should be noted that remarkable progress has been shown in ongoing clinical trials and pharmaceutical studies in developing therapeutic agents since the submission of the first SARS-CoV-2 genomic sequence in January 2020.⁹ In the meantime, it is important to identify necessary public health activities to reduce the mortality and morbidity of COVID-19. Evidence has demonstrated that regular hand-washing, social distancing and maintaining good respiratory hygiene could

reduce the risk of COVID-19 infection.¹⁰ Bearing in mind that nutrition constitutes a significant part of our daily lives, it is tempting to speculate the potential role of nutrition in preventing or even play a part in treating COVID-19 itself. In this review, we discuss the current evidence regarding the role of nutrition in this global pandemic from four main aspects: 1. The association between poor nutritional status (eg: obesity, malnutrition) and the risk of COVID-19 infection; 2. The relationship amongst COVID-19, non-communicable diseases and nutrition; 3. The effects of specific nutrients on the host immune system and its association with COVID-19; 4. Dietary patterns that should be considered amid the COVID-19 pandemic.

Nutritional status is well known to be closely linked to the host immune system. Studies have demonstrated that undernutrition is associated with immunodeficiency while obesity is linked to increased systemic inflammation. This can be explained by the effects of poor nutritional status on organ size, hormone and cytokine levels, immune metabolism and function.¹¹

There is growing evidence suggesting that obesity is linked to increased systemic inflammation as well as an impaired immune system through a variety of immune mediators.¹² As a repercussion, obesity can lead to an increased susceptibility to several infectious diseases, which possibly include COVID-19.¹³ This association between obesity and infectious disease was first reported during the H1N1 pandemic in 2009 when studies were done in several countries (US, Mexico, Canada, Spain, Greece, France, Australia, and New Zealand) reported high prevalence of obesity in severe cases.¹⁴ Following this finding, obesity was later identified as a risk factor for all strains of influenza.¹⁵ Since then, more studies were conducted to investigate the relationship between obesity and infections. To date, there is great evidence to support that




obese individuals are predisposed to infections of the feet, gastrointestinal tract, urinary tract, surgical and catheter sites, skin, gingival and periodontal tissues, as well as respiratory infections.^{16, 17} A study by J B Kornum et al., which included 22,578 males and 25,973 females from the Danish Diet, Cancer and Health Study, demonstrated a significant link between obese men and risk of hospitalisation with pneumonia.¹⁸ Meanwhile, another large population study of 26,429 men and 78,062 women showed a direct correlation between weight gain and the risk of contracting community-acquired pneumonia. Interestingly, the risks among individuals who have gained 40lb or more during adulthood were nearly two-fold higher than those who maintained their weight.¹⁹ As COVID-19 is considered a type of community-acquired pneumonia, reducing the prevalence of obesity could potentially promote resistance to this global pandemic. It should be borne in mind that the optimal management and prevention of obesity largely focus on nutrition, such as: improving eating habits, quality of the diet and reducing calorie consumption.²⁰ Thus, this further highlights the importance of nutrition in the management of COVID-19.

On the other hand, malnutrition is linked with immunosuppression and impaired development of the immune system, which can result in increased susceptibility to infections and poorer disease outcome.^{11, 21} Evidence of this statement can be traced back to 1810, at the time when J. F. Menkel created the term “nutritional thymectomy” as he noticed that the human thymus was particularly sensitive to malnutrition. Recent studies also revealed that mice that are fed on a protein-deficient diet had decreased spleen size and lymphocyte numbers as compared to control mice that were chow-fed. ^{22, 23} As lymphatic organs are highly involved in lymphocyte development, it is salient that malnutrition can indirectly affect numbers of immune cells and the ability of the host immune system to mount an effective immune response against infections.²⁴ Besides, there is growing evidence to support that adipocytokines, such as leptin, have a key role in coordinating the changes in nutritional status and immunity. Since leptins are secreted by adipocytes and its circulating levels are largely affected by the adipose tissue volume, levels are increased in obesity while decreased in states of malnutrition or fasting.²⁵ Leptin affects T cell metabolism and functions by upregulating T cell Glut1 expression and glucose metabolism to support full activation of the T-lymphocytes. In the case of low levels of leptins in malnutrition, T cells cannot become fully activated and hence, cell-mediated immunity is impaired. More recent research suggests that leptin may mediate immunity via central signalling. ^{21, 26} All things considered, malnutrition can result in immunodeficiency and impaired immune function which explains the increased susceptibility of malnourished individuals to respiratory infections, such as streptococcus pneumonia, influenza and tuberculosis and possibly, COVID-19. In the present case of COVID-19, it is noted that low levels of albumin - an indicator of malnutrition in clinically stable patients - are associated with worse disease outcome.

Other factors include age, history of smoking, maximum body temperature at admission, respiratory failure and C-reactive protein.²⁷ A study was done on 1,115 COVID-19 patients also revealed that or pre albumin, the precursor of albumin can predict the progression of the disease. Those with lower levels of pre-albumin upon admission are predisposed to developing respiratory failure and requiring mechanical ventilation.²⁸ It should be noted that although albumin and prealbumin levels do not directly correlate to changes in nutritional status, they are considered in various nutritional assessment and screening tools (eg: Prognostic Inflammatory and Nutritional Index, Mini and Full Nutritional Assessment etc.).²⁹ These findings further suggest that malnutrition can increase the risk of contracting COVID-19 and adequate nutrition intake can potentially promote resistance against the virus. Thus, the importance of a balanced diet should be widely promoted to the public while identification of risk and presence of malnutrition should be an early step in the general assessment of COVID-19 patients as recommended by the European Society for Clinical Nutrition and Metabolism (ESPEN).³⁰

Apart from poor nutritional status, studies also reported that people who are suffering from non-communicable diseases (NCDs) are more vulnerable to developing COVID-19. On 23rd March 2020, the WHO acknowledged NCDs being a risk factor for contracting the disease and an indicator of poor prognosis. These NCDs include diabetes mellitus (DM), chronic respiratory disease and cardiovascular disease (CVD).³¹ According to the largest epidemiology study reported by Chinese Center for Disease Control and Prevention (China CDC) which enrolled 72,314 patients, mortality rates in those with non-communicable diseases were significantly elevated - 10.5% in CVD, 7.3% in DM, and 6.3% in chronic respiratory disease.³² The association between NCDs and infection severity has also been demonstrated in other respiratory illnesses, such as influenza and MERS.³³ 14 This phenomenon could be explained by several mechanisms. Firstly, NCDs result in a chronic, unresolved state of systemic inflammation via various molecular and cellular actions. Eventually, this results in impaired tissue homeostasis and endothelial dysfunction. 34, 35 The negative effect of chronic inflammation on blood vessel wall could potentially explain the increased risk of thrombotic complications and elevated mortality rate in COVID-19 patients with other co-morbidities. 36, 37 Also, NCDs may affect normal immune function, which can lead to the suboptimal immune response against infections. For instance, in uncontrolled diabetes mellitus, innate immune responses, such as neutrophil migration, phagocytosis and microbial killing are inhibited due to the activation of acute-phase proteins.³⁸ As part of the Global Action Plan for the Prevention and Control of NCDs 2013-2020, the WHO listed four behavioural risk factors that should be addressed: tobacco use, physical inactivity, harmful use of alcohol and lastly, an unhealthy diet.³⁹ Considering the association between NCDs and COVID-19, improvements in eating habits could potentially reduce the risk of contracting the disease in the general populations, and better disease prognosis in COVID-19 patients.



While the WHO encourages healthy eating during the COVID-19 pandemic, there is currently no single food or dietary supplement that has been proven capable of preventing or treating the infection. However, previous studies have demonstrated that specific nutrients or nutrient combinations may affect the immune system through the activation of cells, modification in the production of signalling molecules and gene expression.⁴⁰ For instance, inadequate consumption of micronutrients such as vitamins A, C, E, B6 and B12, Zn and Se can result in increased oxidative stress and impaired immunity, thus, correlating to worse clinical outcomes in viral infections.⁴¹ Earlier studies to other viral infections, including SARS, which is another strain of the Coronaviridae family, also suggest that deficiencies in specific nutrients can result in poor disease prognosis and increased virulence.⁴² To further illustrate this, the current knowledge regarding the relationship between specific nutrients and COVID-19 is summarised below:

1. Vitamin A

Vitamin A is named the “anti-infective” vitamin based on the association between its deficiency and a broad range of infections, including gastrointestinal, respiratory and genitourinary tract infections.⁴³ Both innate and adaptive immune responses against infection are dependent on an adequate supply of vitamin A. Vitamin A deficiency can lead to a weakening of the epithelial lining of mucous membranes ^{44, 45}, impaired phagocytic cell functions⁴⁶, reduced numbers of immune cells and impaired development of lymphoid organs.⁴⁷ Studies have shown that individuals with low vitamin A levels are more vulnerable to measles infection, diarrhoea and repeated respiratory infections, and worse clinical progression of measles is seen in vitamin A-deficient children.^{48, 49} Furthermore, improvement of vitamin A status is linked to reduced mortality and morbidity in infectious diseases, particularly measles, measles associated pneumonia, diarrheal disease and HIV infection.^{50, 51} It should be noted that decreased plasma retinol levels seen in infectious diseases, particularly of the respiratory tract can lead to increased susceptibility to infection and hence, resulting in a vicious cycle.⁴⁹ Additionally, isotretinoin, a derivative of vitamin A down-regulates angiotensin-converting enzyme 2 (ACE2), a cellular protein required for the entry of SARS-CoV-2 in the body.⁵² Thus, vitamin A supplementation could potentially aid in the management of COVID-19.

2. Vitamin B

The B-complex vitamins, which include B1, B2, B3, B5, B6, B7, B9 and B12 are a group of water-soluble vitamins that work together to maintain normal immune functions. The combination of vitamin B2 (riboflavin) and UV light is efficacious against a broad range of pathogens (15 different viruses), including MERS-CoV.^{53, 54, 55} Animal and human studies showed that vitamin B3 (niacin or nicotinamide) is effective in reducing lung injury through inhibition of neutrophil infiltration.^{56, 57} Besides, vitamin B3 treatment exhibits antibacterial effects against *Staphylococcus aureus*

and has shown to be an effective therapeutic and prophylactic agent.⁵⁸ Considering that COVID-19 can be complicated by secondary bacterial infections, vitamin B3 has a potential role in reducing the disease severity. In addition, Vitamin B6 deficiency can weaken the immune system by affecting normal lymphocyte function and proliferation, reducing antibody production and the size of lymphoid organs.⁵⁹ Thus, to strengthen the immune system to fight against SARS-CoV-2, prescription of vitamin B supplements can be considered.

3. Vitamin C

Vitamin C is a water-soluble vitamin characterised by its antioxidative properties. Experimental studies have demonstrated that vitamin C could potentially protect host cells from reactive oxygen species (ROS) caused by infections, increase T-lymphocytes proliferation and immune cell function, and decrease virus replication.^{60, 61} Animal studies reported that vitamin C alters the susceptibility to bacterial and viral infections.⁶² For instance, vitamin C increases the resistance of broiler chicks against an avian coronavirus.⁶³ In addition, three human controlled trials reported a lower incidence of pneumonia in vitamin C-supplemented individuals⁶⁴ while two studies have reported on the therapeutic effect of vitamin C supplementation for pneumonia patients.⁶⁵ Since the pathogenesis of COVID-19 is characterised by increased oxidative stress, vitamin C supplementation may have a potential role in the management of the disease. In particular, vitamin C can maintain the functions of lung macrophages and the integrity of lung tissues under oxidative stress, and inhibiting the production of cytokines storm due to COVID-19. ^{66, 67} However, clinical evidence regarding the therapeutic effect of vitamin C against COVID-19 is currently weak.⁶⁸ Considering the affordability, low toxicity and commercial availability of vitamin C infusion, further studies investigating its potential use for the treatment of COVID-19 infection should be warranted.

4. Vitamin D

The role of vitamin D in reducing the risk of microbial infection and mortality involves many mechanisms which can be broadly classified into three main categories: physical barrier, innate immunity and adaptive immunity.⁶⁹ To further illustrate this, vitamin D enhances junction integrity⁷⁰, induces antimicrobial peptides⁷¹, reduces cytokine storm^{72, 73} and suppresses inflammatory responses mediated by Th1 cells.⁷⁴ Interestingly, it has been found that SARS-CoV-2 injures the lung epithelial cells via similar mechanisms - the virus increases the production of Th1-type cytokines in response to the viral infection, resulting in a cytokine storm.^{75, 76} Besides, vitamin D deficiency may potentially explain the emergence of COVID-19 in the winter season, as well as the geographic variations in the reported case fatality rate (CFR). This may imply that vitamin D supplementation could decrease the mortality of COVID-19.⁷⁷ A recent narrative review reported that higher levels of 25(OH)D, the activated form of vitamin D, is associated with reduced morbidity and mortality of acute respiratory tract infections, including COVID-19.⁷⁸ Additionally, clinicians have

recommended maintaining adequate levels of vitamin D to reduce the risk of COVID-19 in both children and adults.^{79, 80, 81} Interestingly, vitamin D supplementation enhances binding of the SARS-CoV-2 cell entry receptor ACE2 (angiotensin-converting enzyme 2) to AGTR1 (angiotensin II receptor type 1), decreasing the number of virus particles that could attach to ACE2 and enter the cell. ⁸² However, it should be noted that the results from a recent analysis of the UK Biobank showed no association between vitamin D levels and risk of COVID-19 infections. Thus, additional research should be initiated to investigate the potential therapeutic and preventative use of vitamin D levels in COVID-19.

5. Vitamin E

Vitamin E consists of lipid-soluble antioxidants with immunoenhancing and anti-inflammatory effects. This is verified by several animal and human studies which have demonstrated the link between vitamin E deficiency and impaired immune functions.⁸³ For example, a decrease in vitamin E and D levels in cattle are associated to bovine coronavirus infection, which implies that proper vitamin supplementation may promote resilience against COVID-19.⁸⁴ In a study which enrolled 2,216 smokers, the incidence of pneumonia in elderly men was decreased by 69% after receiving 50mg/d of vitamin E supplementation for 5-8 years.⁸⁵ In addition, it has been proposed that vitamin E may improve cardiac injuries of critically ill COVID-19-infected patients. Moreover, additional vitamin E supplementation in ARDS patients showed significant changes in Acute Physiology and Chronic Health Evaluation II (APACHE II) score, which is correlated with reduced disease severity.⁸⁶ Bearing in mind that ARDS is a lethal complication of COVID-19, vitamin E supplements can potentially reduce the severity and case fatality rate of COVID-19.

6. Zinc

Zinc deficiency is a global health problem and it is correlated to defective cell-mediated immunity and increased risk of infectious diseases.⁸⁷ For instance, a two-fold increase in mortality rate due to pneumonia is demonstrated in individuals with zinc deficiency compared to those without.⁸⁸ An analysis of a prospective observational study also reported that patients receiving zinc supplementation had a smaller risk of ventilator-associated pneumonia.⁸⁹ Zinc is considered as a potential treatment for COVID-19 because of its antiviral and immunomodulatory effects.⁸⁹ Adequate Zn level is shown to reduce lung inflammation, improve mucociliary clearance, prevent ventilator-induced lung injury and promote antibacterial and antiviral immunity.⁸⁸ In vitro experimental studies demonstrated Zn²⁺'s antiviral properties against SARS-CoV through inhibition of SARS-CoV RNA polymerase. Indirect evidence also indicated that Zn²⁺ may decrease the activity of angiotensin-converting enzyme 2 (ACE2), known to be the receptor for SARS-CoV-2.⁹⁰ However, limited clinical and experimental studies are currently available to support the therapeutic role of zinc against COVID-19.

7. Iron

Iron deficiency is known to be associated with a wide range of infections^{91, 92} due to its effect on both innate and cell-mediated immunity.⁹³ Chronic deficiency of iron results in reduced antibody production, as shown in experimental studies with mice exposed to influenza virus.⁹⁴ A case-control study has shown that iron supplementation reduces the recurrences of infections, particularly of the gastrointestinal tract, urinary tract and respiratory tract.⁹⁵ However, recent research has shown that iron overload may potentially be a modulator in the pathogenesis of COVID-19.⁹⁶ Thus, careful consideration should be taken before prescribing iron supplements for COVID-19 patients.

8. Selenium

Studies have demonstrated that selenium deficiency results in oxidative stress and inflammation which can lead to mutations in the viral genome. Epidemiology studies suggest that selenium deficiency is associated with viral infections, including SARS.⁹⁷ In addition, selenium supplements have been shown to reduce viral mutation rates and improve immunocompetence in Selenium-deficient, virus-infected hosts.⁹⁸ In regards to COVID-19, a significant association was established between cure rates and background selenium status in cities in China.⁹⁹ Considering that one of the significant causes of mortality in COVID-19 patients is the formation of micro-clots in blood vessels¹⁰⁰, selenium's ability in reducing thrombosis formation may improve the prognosis of COVID-19 particularly at risk of coagulopathy.¹⁰¹

9. Copper

Copper is an essential trace element for humans. It plays an important role in maintaining the functionality of the innate and adaptive immune system.¹⁰² Copper is also capable of inactivating a range of viruses, including bronchitis virus, HIV and poliovirus¹⁰³ through the production of reactive oxygen species.¹⁰⁴ Moreover, Cu oxide nanoparticles and Cu²⁺ play a role in inhibiting viral entry and replication. Given the link between copper deficiency and weakened immune response, clinicians hypothesise that copper supplementation can help to combat the global pandemic.¹⁰²

10. Unsaturated fatty acids

Unsaturated fatty acids, particularly arachidonic acid (AA), eicosapentaenoic acid (EPA) and docosahexaenoic (DHA) which are found in food such as meat, seafood and egg^{105,106}, were reported to have a potential role in promoting resilience and recovery from SARS-CoV-2, SARS and MERS infection.¹⁰⁷ A recent Cochrane review which included 10 randomised controlled trials reported that EPA and DHA supplementation may be effective in improving blood oxygenation, reducing ventilation requirement and length of ICU stay in ARDS patients.¹⁰⁸ This can be explained by the ability of these unsaturated fatty acids in reducing inflammation and excessive blood coagulation, promoting immune cell functions, inactivating



enveloped viruses.¹⁰⁹ However, several studies have reported contraindicative results, suggesting that high doses of EPA and DHA can increase host susceptibility to certain infections, including influenza and Zika virus.^{110, 111}

11. Glutathione

Glutathione is known to protect host cells from oxidative stress and viral infections.¹¹² An analysis suggested that reduced levels of glutathione could be one of the major causes of the excessive inflammatory response associated with severe COVID-19 symptoms, indicating that glutathione supplementation could reduce the disease severity.¹¹³ This hypothesis was confirmed by a report published recently which described the effectiveness of glutathione in managing respiratory symptoms associated with COVID-19 patients.¹¹⁴ Non-randomised clinical trials are currently underway to investigate the potential use of N-acetylcysteine, the precursor of glutathione as a therapeutic agent of COVID-19.¹¹⁵

As aforementioned, macronutrients and micronutrients are important in maintaining the function of the host immunity. Inadequate intake of nutrition confers to a higher risk of infection while the consumption of adequate nutrients with anti-inflammatory effects can protect the host from chronic inflammation and infections. This leads to the question of whether any existing dietary patterns can have a potential benefit in protecting individuals from contracting COVID-19. To date, the Mediterranean Diet (MeDiet) is one of the most studied eating patterns that is known for providing health benefits. It was first inspired by the traditional diet in the Mediterranean region. It mainly consists of fresh fruits and vegetables, protein-rich legumes, olive oil, whole grains and nuts with low-to-moderate amounts of seafood, dairy products (yoghurt, cheese), wine and white meat, and a minimal amount of processed meats, red meats and foods high in sugars.¹¹⁶ (Table 1) The health benefits of the Mediterranean diet was first noticed in the late 1950s in the Seven Countries Study, which was a research project to study the role of diet as a risk factor for cardiovascular disease. The study was done across 7 nations (Italy, Japan, Holland, Finland, Greece, Yugoslavia and the United States) and enrolled more than 11,000 individuals. The results showed that individuals living in the Mediterranean region of the world had lower rates of coronary heart disease among the 7 nations.¹¹⁷ This led to further studies on the impact of the traditional diet in the Mediterranean region on the human body. Recently, the PREDRIMED (PREvencion con Dieta MEDiterranean) study, which was designed to investigate the long term effects of MeDiet, reported high-level evidence to support the role of traditional MeDiet in providing primary prevention for cardiovascular diseases (eg: myocardial infarction, stroke, peripheral vascular disease, atrial fibrillation) ¹¹⁸⁻¹²¹ and non-communicable diseases (eg: type 2 diabetes mellitus¹²²). This is attributable to the anti-inflammatory properties of the food consumed in MeDiet. These foods not only contain abundant vitamins (B, C, D and E) and minerals that are essential for regular immune function, they also contain bio-

active phenolic compounds, polar lipid and peptides that have anti-inflammatory, anti-oxidant and antithrombotic effects. These compounds are capable of preventing inflammation and associated thrombotic complications.¹²³ In brief, the adoption of a healthy dietary pattern, such as the MeDiet could prevent non-communicable diseases (NCDs) and potentially prevent and decrease the severity of infectious diseases, including COVID-19 due to its benefits on the immune system.¹²⁴

Table 1: Types of food consumed in the Mediterranean Diet¹¹⁶

1. Staple foods are a large variety of minimally processed whole grains and legumes
2. Large amounts of various fresh vegetables consumed daily
3. Typical daily desserts are fresh fruits; sweets based on nuts, olive oil, and honey are consumed only during celebratory occasions
4. The main sources of fat are cold-pressed extra-virgin olive oil, nuts and seeds
5. Moderate consumption of fish
6. Low consumption of dairy products (mainly local cheese and yoghurt); butter, cream and milk never used, except for milk in coffee or for infants
7. Very low consumption of red and processed meat
8. Low to moderate consumption of wine (only with meals)

In summary, it is important to consider the impact of nutrition on the susceptibility and management of COVID-19. It is highlighted that poor nutritional status, such as obesity and malnutrition can result in a higher risk of contracting the infection and worse disease outcome. Bearing in mind that NCDs are proven to be a risk factor of COVID-19, prevention and optimal management of these co-morbidities via lifestyle interventions, namely healthy eating should be promoted to the public. Micronutrients, such as vitamins, minerals and bioactive lipids may potentially promote resistance against SARS-CoV-2. However, more clinical and experimental trials are warranted to investigate their potential use as well as the therapeutic dosage. Lastly, adoption of a healthy eating pattern in the long term, such as the Mediterranean diet can contribute to a broad range of health benefits and should be widely promoted.

Certainly, COVID-19 pandemic is a challenging health care problem. However, healthcare systems should see this as an opportunity to discover and to promote the importance of nutrition in combating infections to prepare for future challenges.



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With some 7.8 billion people around the world in some sort of lockdown, this may turn out to be the largest psychological experiment ever.

The media is loaded with negative news about how lockdown is creating trauma. The discussion generally focuses on increasing unemployment rates, isolation, and social distancing. Although these effects are undoubtedly real for many people, this pessimistic rhetoric might be generating more anxiety than it claims to be observing.

For a balanced discussion, we need to question : Can lockdown have a beneficial influence on our mental well being? Can we all end up being a better version of ourselves once the lockdown ends? Could it be that lockdown is providing us with the time and space to reflect on ourselves in a way that can promote our emotional wellbeing?

Many are bored and fed up with their daily routines. Staying indoors all the time is quite irritating. It is typical to feel this way. After all, being human, we need to socialise. But what we don't seem to have registered is the fact that this lockdown can turn out to be a blessing in multiple ways.

Our happiness depends on how we choose to view the world! If we give it some more thought, there are innumerable benefits that this lockdown has to offer.

To begin with, the lockdown enables us to spend more time with our family. With kids attending online classes and people working from home, this scenario has brought families closer. This is the most significant benefit of staying at home.

Now, this is my personal favourite: Sound sleep! Earlier, sleep would be the last priority on our list. Waking early and rushing to the workplaces had become a routine. As people are confined to their homes, they can now get adequate sleep.

Lockdown also suggests no visits to restaurants, which is a blessing in disguise. This shifts our focus to the next benefit regarding healthy eating habits. Home-cooked meals always remain a healthier option than eating out. Ample time in lockdown directly correlates to a better quality of food.

Lockdown: The Untold Side

Generous time also means developing more interests and hobbies such as baking, dancing, gardening, and reading novels.

According to a recent study, students who previously felt disconnected from school and peers due to bullying or tremendous schoolwork saw improvements in their psychological health during the lockdown, lending support to this theory.

With gyms shut down at multiple places, home workouts are a great substitute for gym sessions. Be it a half an hour yoga session, brisk walking, or squats, there are several different types of home workouts that one can easily perform.

Not only this, but the lockdown has also taught us the importance of hygiene, an undemanding lifestyle, and a simple way of living. We now tend to focus more upon practices like washing hands, using sanitisers, and regular bathing. Many have utilised this time to reconnect with their faith and nature.

It has helped them consciously develop their purpose in life. Ample time provides the opportunity to step back and evaluate our interests, beliefs, and values.

Moreover, we no longer see ourselves as quite so immortal as before. We have realised the immense power a virus withholds, enough to destroy humanity.

Many people have suffered a huge loss in this pandemic. This article is not meant to devalue experiences such as losing a loved one or being jobless. However, we must present a balanced view regarding mental health during the lockdown.

Many of us might emerge from lockdown mentally healthier than before. Once we return to our previous schedules with less flexibility and fewer hours for reflection accompanied by daily conflicts at work, we may think of COVID-19 as being a positive pandemic.

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COVID-19

Is It a Test for Humanity?



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The word 'COVID-19' has been buzzing in our head non-stop. None can be found without noting it. COVID-19 pandemic has affected every aspect of our life. Life has been stunted at a point. Now, this word has become a horrifying perception. **We are being so afraid that we are forgetting the difference between disease and patient.** A patient infected with coronavirus is facing rejection, ill-treatment, and even having their families being boycotted from society. It's not a case of one certain place. It's happening around the world. **Now humanity is in a state of questions.** Can we ensure our safety by doing this? Can we say, we won't be affected tomorrow? The answer is 'NO.' This pandemic has shown us that we all are together. We can't live by denying others. We should encourage the patient, spread awareness, and come forward to fight this pandemic from our own place.

"A 62-years old former doctor, Dr. Chuck Wright, has spread his helping hand in this pandemic crisis. Despite having high risk, he is working to serve patients in San Mateo."

There have been too many inspiring stories floating around us. We can become an example too. These incidents enlighten our hearts and encourage us to fight against the pandemic. We all want to live. No one wants to die. Even

a mentally unstable person wants to survive properly. But what we do is **'surviving'** which is existing despite hardship. People who are **thriving** got success in the end. They can live a prosperous life. Now, why am I saying this? My answer will be a question too. Are covering your mouth while coughing and cleaning yourself after coming home newly invented during this pandemic? No, they are not. We have been knowing these manners for centuries. But now we are accomplishing it. Until something big happened, we don't intend to work. It shouldn't be going on. We should love ourselves more. We should have a dream for a better life. So, we should always maintain hygiene. Besides the preventive measures of COVID-19, we can't forget other manners and hygiene. In this way, we can prevent other diseases too. Some hygiene like isolating patients or many more may seem unsocial for certain people. At that moment, we ask ourselves, 'Is doing these harmful for us?' If the answer is no, then we should embrace these warmly. **The work, the trait which uplifts our being and becoming, should be accepted.** It's high time we changed our outlook. These little changes can make a huge difference. A society that gives a negative impression upon the manner breakers can bring a healthy society. Together we can protect ourselves. Together we can pass the test off humanity.

THE LOCKDOWN PARADOX

EXACERBATION OF SEXUAL VIOLENCE WITH DOMESTIC VIOLENCE AND INTIMATE PARTNER VIOLENCE



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Introduction

The pandemic of COVID-19 has taken the world by storm since its emergence in December of 2019. As of April 15, 2020, more than 2,000,000 people have contracted the disease. Due to the highly contagious nature of the disease, authorities have suggested a socially restrictive approach to eliminate the disease, namely a lockdown and social distancing, which many governments around the world have implemented.

Despite the intention for protection, the lockdown may have unintentionally exposed a vulnerable population to more violence in the form of domestic and/or intimate partner violence (IPV), which includes sexual violence.

What is Domestic Violence (DV) and Intimate Partner Violence (IPV)

According to the National Health Service of UK, "Domestic Violence, also called domestic abuse, includes physical, emotional and sexual abuse in couple relationships or between family members."



According to the CDC of America, Intimate Partner Violence is physical or sexual violence, stalking and/or psychological harm by a current or former partner or spouse.

Both of these are related and inter-connected in that IPV can be a form of DV. And apart from DV and IPV, sexual violence can be from non-partners or outside the family or domestic circle also.

DV and IPV in critical and emergency situations

There have been many reported cases of DV or IPV sexual violence exacerbation in other critical, emergency or disaster situations around the globe previous to this pandemic of COVID-19.

According to a study done by Vu et. al 2014, one in five refugees or displaced women in complex humanitarian settings experience sexual violence. And according to CDC of America, about 1 in 4 women experiences violence from an intimate partner during their lifetime which includes sexual violence.

Hence, there have been increasing concerns amid

the COVID-19 outbreak that numbers of DV and IPV with sexual violence, may increase due to the many psychological and social factors of the lockdown.

DV and IPV with Sexual Violence in COVID-19

When the COVID-19 outbreak was announced, affected countries immediately started implementing a lockdown policy to reduce the spread of the disease. This created a complex environment for a plethora of factors to enable more DV and/or IPV with increasing concerns over sexual violence.

Being locked in and isolated can be a very stressful situation, and in those households of prevalent violence, this can exacerbate the situation. The Center for Global Development has identified at least nine ways in which the consequences of the lockdown can lead to violence including quarantine related stress amongst others.

According to a recent report in The Guardian, there has been a huge surge in DV in the UK after the lockdown. According to the report, Refuge, UK's largest domestic abuse charity, reported a 700% increase in calls to its helpline in a single day.

According to Sixth Tone, an opinion blog originating in China, when the Hubei Province was put on lockdown, in Jianli county which is administered by Jianzhou, DV has tripled in February with 162 cases reported. This is three times the 47 cases reported from the same period of last year.

How can we stop DV and IPV during COVID-19

It is safe to say that the lockdown brought by COVID-19 has affected our lives in one way or the other and it is no exception to any other humanitarian crisis or disaster in terms of DV or IPV. In fact, it has exacerbated DV and IPV with sexual violence around the globe in unprecedented levels.

It is in times like these that policies have to be made to stop or mitigate such activities by the governments. Local authorities and NGOs should work to get in touch with the affected and provide support for them. Provide helplines and ways for victims to get in touch with help services. Health care facilities should be ready to help with the utmost care for victims of DV or IPV even during the COVID-19 outbreak.

On the other hand, it is also imperative that help services reach out to the perpetrators and provide awareness and needed support to change their behaviours. We should be physically distant during this pandemic, but it is no reason or excuse to stop our support to our family members and community. To win a war, we need to fight every battle albeit our losses. This is a community effort and everyone in the community counts.



GERIATRIC CARE DURING THE PANDEMIC

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With the pandemic striking out of the blue, it not only took the world by shock, but it also caused panic, anxiety, and widespread hysteria. The entire world suffered due to the sudden lockdown, lack of information, and rampant deaths due to the virus that just created a lot of confusion. Though the pandemic had a toll on the mental health of the entire world, it did severely hit the elderly due to the imminent threat of death hanging over their heads. The majority of the people who succumbed to the virus are elderly, i.e., aged above 60 years. This not only creates paranoia amongst the elderly but also affects their mental wellbeing.

The elderly are at higher risk due to the decreased immunity and also the comorbidities that they develop over time. This may predispose them to the fatal effects of the virus, like the development of Acute Respiratory Distress Syndrome, Chronic Obstructive Pulmonary Distress syndrome, and Multi-Organ Dysfunction Syndrome, which might lead to mortality. Due to the decreased immunity, the elderly also have a longer recovery time. They are also at higher risk of contracting the virus due to the increased number of hospital visits that they may require due to various other health conditions developed over time. Further various mental disorders, sensory, and psychological deficiencies may serve as an issue as the elder person may not be able to understand and implement various preventative measures against the virus.

The elderly are already quite a susceptible population when it comes to mental health disorders. The reason behind this is many. They may face social neglect from their families or may be sent to the residential care homes. As a result of this, their mental health deteriorates. They may also be harbouring tension or stress due to the pandemic taking the world by surprise. It is nothing but obvious that they would stress about the wellbeing of their loved ones. All this stress and tension coupled with neglect, fear, anxiety, and depression, cause a severe blow to the mental health of the elderly. Also, they are not well versed with the online mediums of communication as a result of which many of them would not have been able to keep in constant touch with their loved ones, which acts as another triggering factor. The elderly have also been proven to have increased suicidal tendencies.

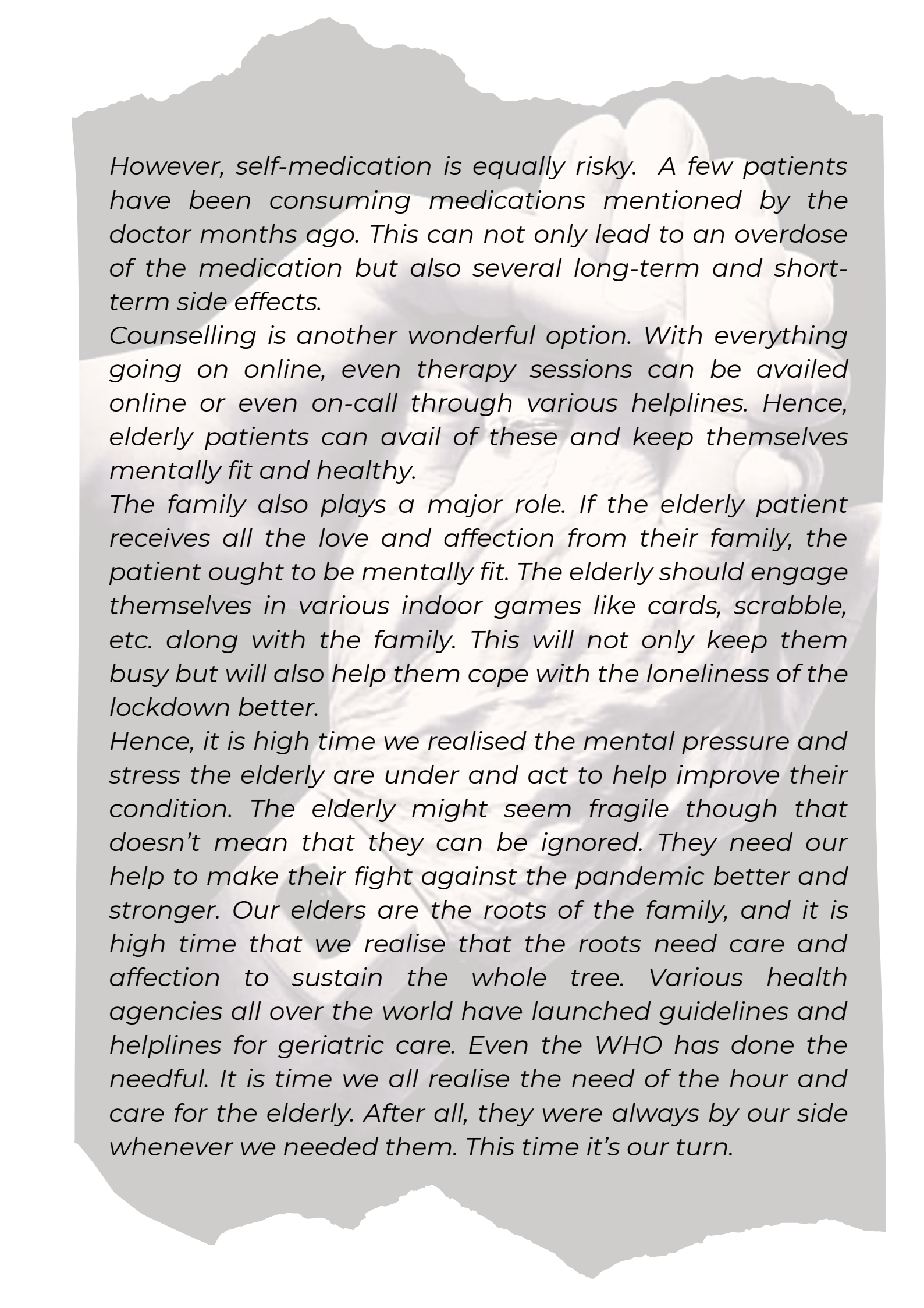
In this situation, not only do the elderly demand and require our help but special attention too. This time is even more taxing for them as they are also fighting ageism along with COVID-19. But we can certainly make the fight easier and smoother for them. The first and foremost step to be taken is to prevent coming in contact with the virus. It is obvious that this may lead to worsening of mental health, but if supplemented with proper care and attention, the elderly will make it through. Regular hospital visits and check-ups predispose the patient to the virus by bringing the patient in almost direct contact with the virus. Try and prevent that with the help of telehealth. Telehealth services have radically improved all over the world along with countries releasing guidelines for better administration of the same.

Also, the platforms are vigilant enough for only register licenced doctors. Hence, these platforms are quite reliable and a great alternative to regular clinician visits during the pandemic. The second would be to stay in constant touch with them, talk to them on a regular basis, and discuss all problems and issues with them. It is important to keep them busy so that they cannot think about the void that the pandemic has created in their lives.

Thirdly, try to prevent contact with all sources of misinformation. Misinformation not only destroys mental peace and also creates useless fear. It affects mental health in a very drastic manner. Hence, it is best to avoid listening to headlines that are unreliable. We can also practice limited screen time to prevent listening to news that may be false and avoiding negativity. Also, try to listen to reliable news channels only.

Be cautious in case of any psychological issues of elderly patients. This causes increased suicidal tendencies. Also, the person in charge needs to be prepared for all sorts of adverse situations.

Try to avoid elective surgeries and also try to take all medications on time, especially in the case of diabetes. Poor sugar control has been a major reason for mortality amongst diabetic patients. The elderly often skip their medication and take it lightly. However, it should not be taken lightly, the reason being that people with proper sugar control have come out victorious after their battle with the deadly virus.



However, self-medication is equally risky. A few patients have been consuming medications mentioned by the doctor months ago. This can not only lead to an overdose of the medication but also several long-term and short-term side effects.

Counselling is another wonderful option. With everything going on online, even therapy sessions can be availed online or even on-call through various helplines. Hence, elderly patients can avail of these and keep themselves mentally fit and healthy.

The family also plays a major role. If the elderly patient receives all the love and affection from their family, the patient ought to be mentally fit. The elderly should engage themselves in various indoor games like cards, scrabble, etc. along with the family. This will not only keep them busy but will also help them cope with the loneliness of the lockdown better.

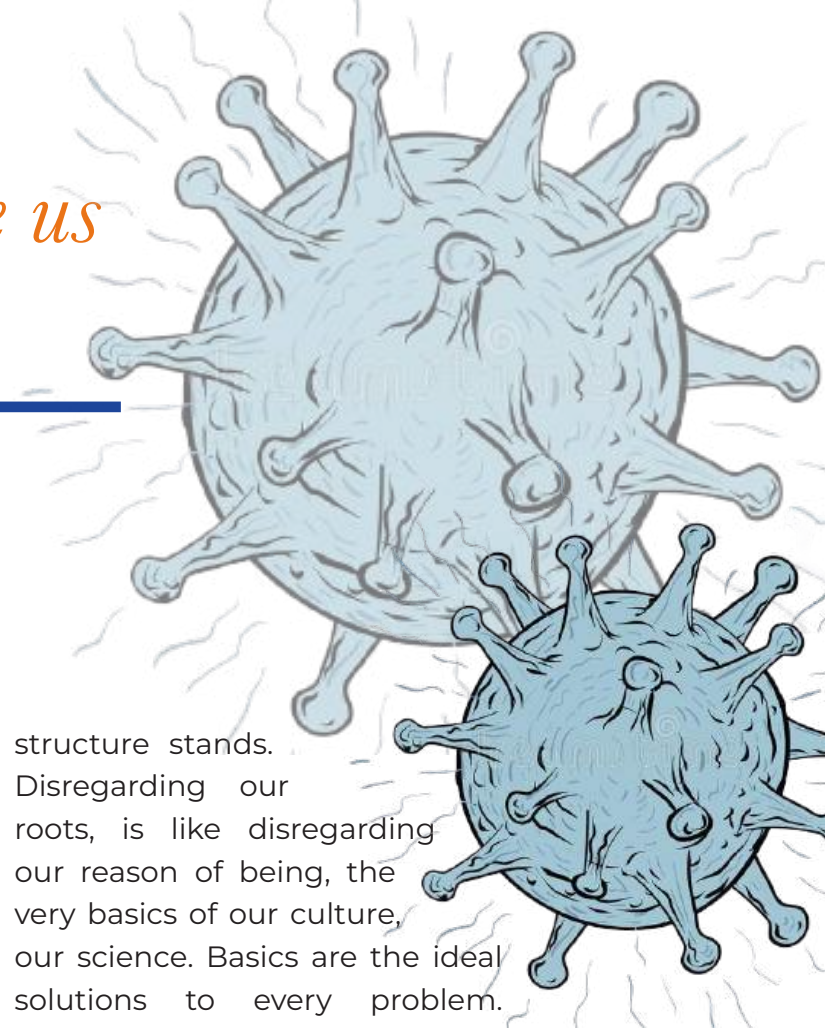
Hence, it is high time we realised the mental pressure and stress the elderly are under and act to help improve their condition. The elderly might seem fragile though that doesn't mean that they can be ignored. They need our help to make their fight against the pandemic better and stronger. Our elders are the roots of the family, and it is high time that we realise that the roots need care and affection to sustain the whole tree. Various health agencies all over the world have launched guidelines and helplines for geriatric care. Even the WHO has done the needful. It is time we all realise the need of the hour and care for the elderly. After all, they were always by our side whenever we needed them. This time it's our turn.

The Roots that made us Unassailable

A fine morning, I see the news flash the breakout of a new virus. I brush it away thinking it to be no different than the previous breakouts of swine flu and avian flu. I wonder why people are so worried, the science has advanced enough to search a cure within a month if not a few days. However, the virus spread impacting millions of lives, thousands of households, and hundreds of economies, with nothing coming in its way. No medicine, vaccine, nor genetic engineering could hinder the pace of its spread. All the knowledge that we had gained seemed to fade into nothingness. With people dying at an alarming rate and no solutions, the governments decided to press the pause button on the spread by announcing the lockdown. All this gave the doctors and other professionals some time to think.

When we are stuck, our brain tends to look at all the further improvements that can be done, experiments that can advance our knowledge even further to find solutions. The only thing we forget is to revise our very basics and look for solutions at the grass root levels. This time when all the advancements failed and man looked at history for solutions, the very roots of medicine, we found that it is those basics that can help us fight this pandemic with valour. This not only shocked the people but also made them understand that no matter where a man goes, it is his roots that hold him to the ground and make him who he actually is.

Our roots are the building blocks of medical science, the foundation upon which the whole



structure stands. Disregarding our roots, is like disregarding our reason of being, the very basics of our culture, our science. Basics are the ideal solutions to every problem. They may seem tedious to apply or out of sense sometimes, but they actually are the ultimate solution to every problem.

In the coronavirus pandemic when man turned to his roots to find the solution, he found a way to decelerate the spread of the virus. With the use of immunity boosting foods, simple vitamins and warm water, the fight against COVID-19 gained pace. Some people however still continued to believe in the fact that the history is the past and has no impact. However, till date, we do not have any vaccine for the coronavirus. But, usage of indigenous herbs, warm water and immunity boosting foods has been hastening the rate of recovery.

Being on the road to advancement is great, but forgetting the roots has just brought immense loss to the entire mankind. Disregarding indigenous medications that our forefathers used as medicines was the biggest mistake that we made. Waiting for a solution while millions lost their lives was a huge mistake. If we had trusted our ancient knowledge on

time and not foolishly thought ourselves to be advanced enough to continue searching for a cure, we may have ended up saving hundreds of lives. Foolishness isn't trying, foolishness was not accepting the fact that we still have work to do.

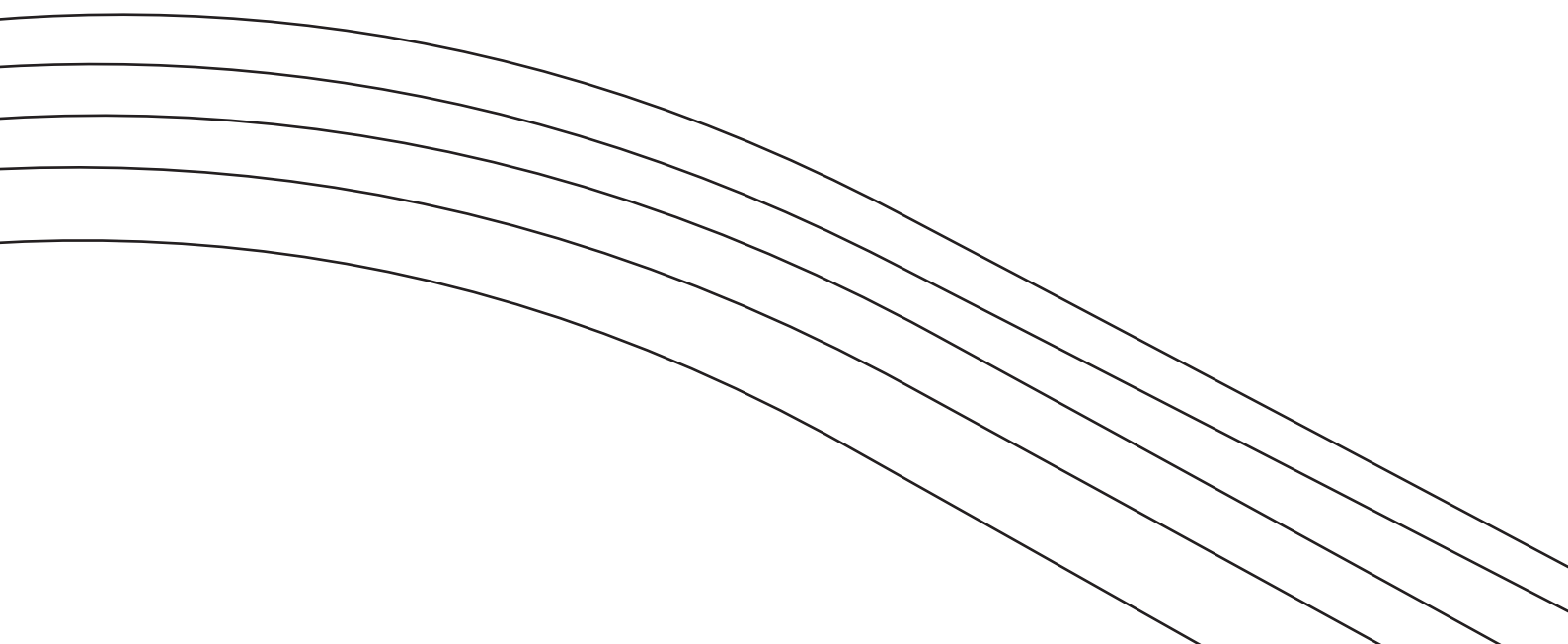
I firmly believe that the coronavirus pandemic was nature's way of reminding us about our dependence on mother earth and how arrogance brought mankind down to its knees. Concentrating on our fundamentals must be a regular habit instead of assuming them to be useless. Not only did the pandemic remind us of our fundamentals, but also gave mother nature time to rejuvenate herself, bringing to notice the damage that mankind had done.

It isn't that science is completely incapable of searching for solutions and has failed, it is just that approach to problem solving needs to be changed. We must start from the very fundamentals and move ahead. However, now that vaccines have come into play, the conditions might just get better. It is high time that we learn from our mistakes and try to not repeat them in the coming future. We may be tempted to learn the complex, difficult and fancy techniques of problem solving, but let us learn to lay emphasis on fundamentals before anything else. They are what will define us in the long run.

After all, it is rightly said, "To be strong, we must first learn to be a beginner"

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THE LITMUS OF SOCIETY



When a storm hits a forest, there will be casualties. Small birds are carried away by the wind, fragile trees get pulled up by their roots, unsuspecting animals are unable to find shelter—the side effects of a calamity. Some animals seek shelter underground or have the insight to hide straight inside the eye of the storm, protected from danger. In biology, we call this natural selection.

In real life, the matter is not as simple. Immense disparities in the distribution of wealth and socioeconomic status create a skewed playing field (to say the least). These discrepancies are all around us. How many times have we opened a textbook and read “Risk factors: low socioeconomic status, overcrowding, inadequate sanitation”? As healthcare professionals, it is our duty to read between these lines: those who earn less money, are more likely to get communicable diseases. Economic and social privilege make this unnatural selection.

No one would have anticipated COVID-19 would have such a devastating effect all across the globe. But did it affect everyone the same?

This is a difficult topic to reflect on. Those of us who do benefit from socioeconomic privilege often feel a type of survivor's guilt when we address this.

Our hearts were broken when we read the stories of migrant workers who walked hundreds of kilometres to reach their homes. We are devastated by the closure of family-owned businesses unable to compete with deep-pocket franchises. The whole world has faced devastating losses—loss of life, family, and livelihood. It is easy to turn away to avoid feeling guilty. However, we cannot allow ourselves to remain indifferent to the suffering of others. As healthcare workers, we have the potential to be agents of change; it is our duty.

So, what can we do? The first step is to change your guilt to gratitude. If you were born with socioeconomic privileges, be grateful and do your best to help those who are not as fortunate. The next step to change is genuine self-reflection. You must ask yourself difficult questions and discover any subconscious biases you have. Educate yourself by reading books on provider bias. Be aware that not all patients have equal incomes and learn which investigations are expensive. Become better clinicians.

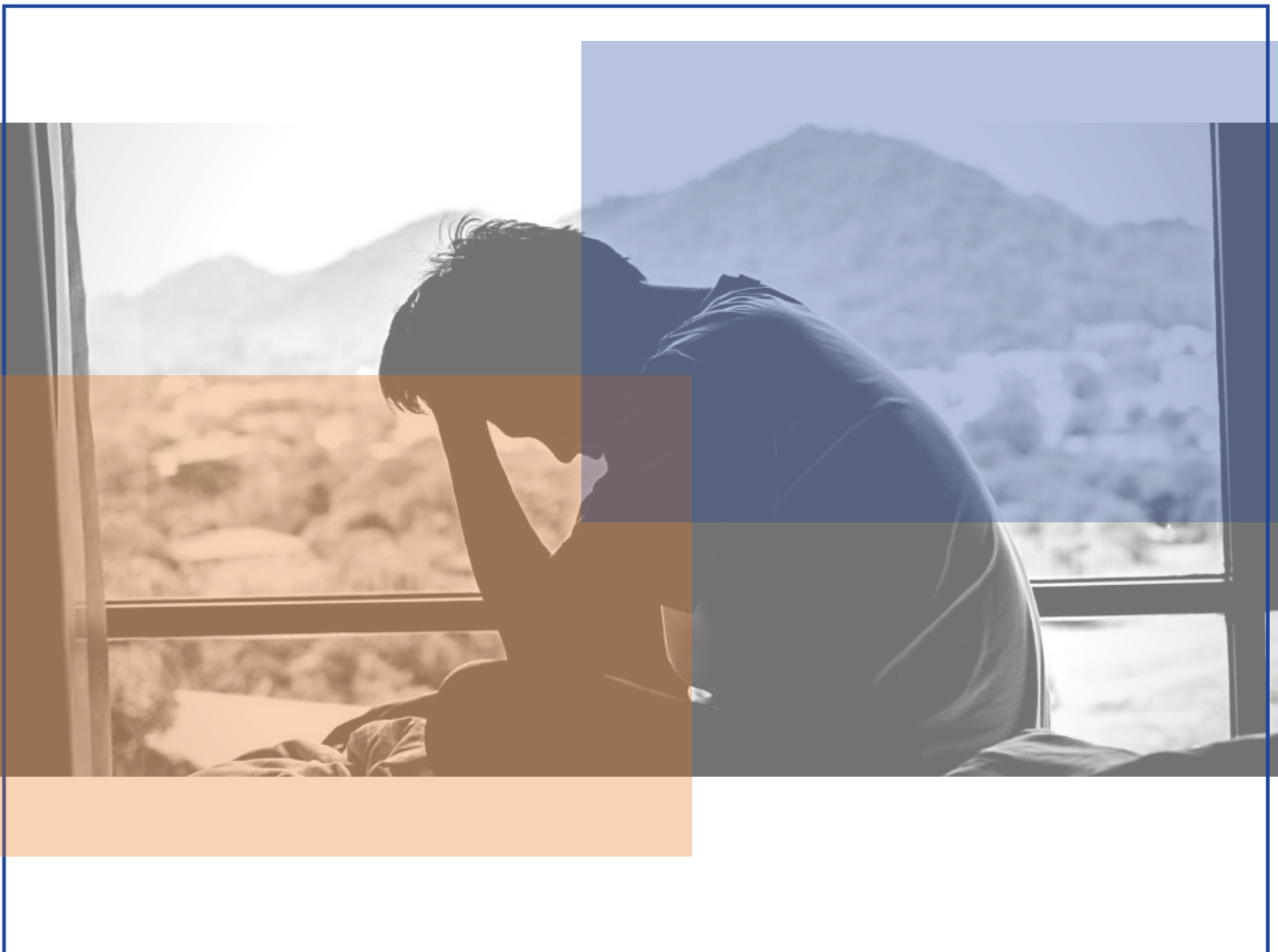
Develop your clinical skills to achieve an accurate clinical diagnosis and reduce reliance on extraneous tests. For example, if a patient comes to you with back pain, a thorough physical examination can eliminate the need for an MRI when the condition is benign. [1] This will help reduce some of their financial burdens. Whenever possible, educate your patients. Explain what disease they have properly. I once encountered a patient who erroneously believed his drinking caused his congenital heart disease! When medical students have difficulty learning about all these diseases, imagine how much more difficult it is for patients, especially those who have not received a formal education. These may be small steps, but they can make a huge difference in the lives of your patients. Begin to bridge the gap; change is contagious, you might end up making a bigger difference than you think.

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MENTAL IMPACT OF COVID-19 PANDEMIC

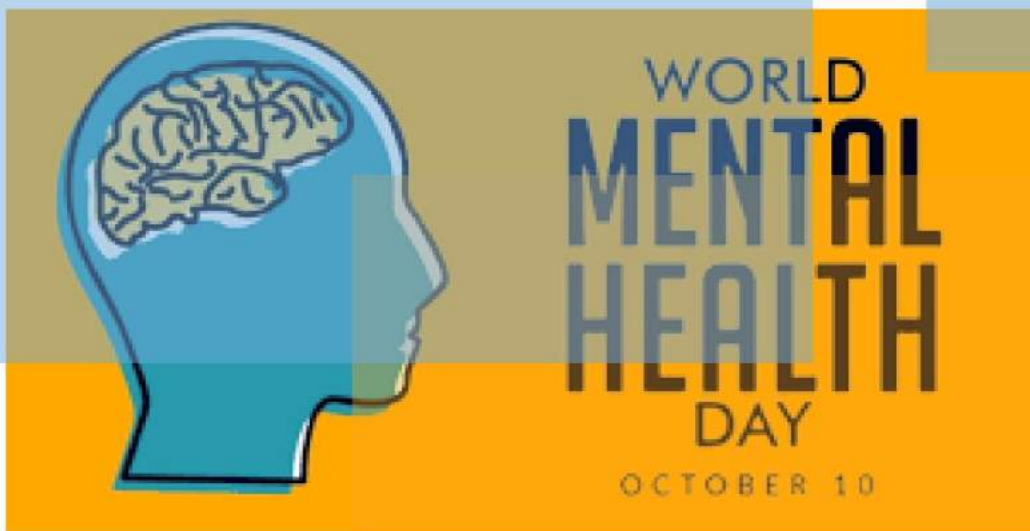


**LETS TALK
ABOUT MENTAL
HEALTH**

2020 has been a devastating and challenging year for most of the humans on earth. After its initial identification in December of 2019 in Wuhan City of China, SARS-CoV-2 has travelled far and wide with claiming lives and rendering people unwell. So far, till the date of writing of this article, COVID-19 has killed 1,208,386 people all over the world. The death rate is low among infected people, yet the virus has a very high range of transmission that has led to higher infection and death numbers. Due to the higher rate of transmission, the fear of the virus has been exaggerated. This has created a negative impression in the mind of infected people. The psychological state of mind plays an important role in the process of healing.

In the low and middle-income countries of South Asia, mental health is not perceived as an important factor for the quality of life and is neglected in many scenarios. However, the bigger picture is rather different and quite unsettling. The COVID-19 pandemic has brought medical facilities of nations to its knees. Meanwhile, mental health services have come to a screeching stop.

There has been massive testing in the cities and villages, lockdown, and isolation with social distancing to control the transmission. However, these borders and restrictions created along with the nail-biting fear of the life-threatening disease have had a massive toll on the mental wellbeing of people. The economy has taken a significant hit with the rise of unemployment; people are unsettled with increasing crime rates; students are pressed to change their format of learning with the shift to online teaching while millions of students are still missing their classes due to lack of management and resources. This is creating anxiety in students who are having a difficult time managing their studies and coping up with the changing pattern of teaching which is sure to be reflected in the future. OVID-19 on its own is known to have neurological complications such as delirium, agitation, and stroke.



People with pre-existing mental health issues like anxiety and depression are more prone to severe outcomes when they are infected. A mentally sound individual, when infected, is more prone to anxiety due to fear of the disease. There have definitely been silent cases where a person is infected and cured but go unnoticed where the individual has no fear and mental issues. However, once diagnosed, a healthy infected person tends to develop anxiety. Lots of the symptoms of COVID-19 match with seasonal flu as well. This has also created mental tension in the people. Human interaction is the part of us being a social being. The everlasting restriction in human interaction has been critical for uncounted relationships across the globe. The ambition and goals of individuals have been crushed. Travelling is controlled and ease of movement has diminished.



People are required to cover their faces with masks all the time. The factor of happiness has gone down by creating a gloomy state of mind. Every human being is waiting for a shimmer of hope to shine upon them in form of a vaccine or specific medication. However, that road seems far away right now, and the resurgence of cases is being seen in certain areas of the world. There have been several cases of reimplementing of lockdown in cities and countries. These kinds of activities are certainly necessary to contain the virus but create an impression of doom in the people's mind which they can't get through. The number of suicide cases has also gone up after the onset of the pandemic. The socio-economic factor entangled within the mental wellbeing has created this dreary situation.

We are trying to control the virus and decrease deaths. However, the bigger problem of mental instability in people is looming in the background. This can have serious and long-term implications which need to be addressed fast and effectively. It is high time that concerned health service bodies realise the necessity of mental wellbeing and take the mental health promotion activities side by side with control and treatment. People need to be counselled and reassured. The government of nations needs to lax on their citizen in this pressing time alleviating economical burdens. It is time for people to be more kind and helpful to each other. Virtual interaction and the use of technology can be rejuvenating to keep one busy. As an individual, we need to be optimistic and ever so careful and fight against this pandemic. The World Mental Health Day on the 10th of October was more relevant at the time of the pandemic. WHO held its program to increase funds for mental health promotion and create awareness among concerned authorities on this day. Such kinds of the campaign are impactful and necessary. We need to talk more about mental issues and regard it as a medical necessity to bring changes in the life of people.



WELLBEING IN PANDEMICS



Every catastrophe that strikes the planet in form of a pandemic makes humans ponder over the ancestrally proclaimed but currently exaggerated title of 'most intelligent animal'. And during such times, the most important aspect that also happens to be the least discussed is an individual's wellbeing.

Pandemic, which is defined as a disease prevalent over a large geographical area, wreaks havoc not only on a country's economy and society but also at an individualistic level. From living a normal life to suddenly landing on a hospital bed with varied levels of symptoms and a doubtful survival, it is no less a catastrophe to the infected person and his family. Even the patients who survive have to face the 'post-recovery social stigma'. The current pandemic similarly has made drastic changes in the lives of people. Life during a pandemic is certainly distorted in all aspects of wellbeing—be it physical, psychological, or spiritual. Uncertainty of normal life jolts the psychological and spiritual wellbeing of a person. Restricted outdoor activities and barred leisure excursions hamper the physical wellbeing. But the worst sufferers are the citizens of underdeveloped countries where due to economic instability, patients cannot have access to proper medical care which leads to higher mortality rates and comorbid conditions in subjects who survive the battle with death during treatment.

Higher authorities also need to propagate correct information regarding the pandemic so that people can be more prepared for the fight against the disease-causing agent, have better treatment strategies, and implement an early course of pandemic itself. With regards to the current scenario, at individual country level, governments need to monitor the proper treatment of patients, pass laws for healthcare personnel safety, and the society needs to be more affectionate and sympathetic towards fellow recovered patients to form a stable emotional bond and help the patient mentally and spiritually. At the world level, underdeveloped countries should be well-funded by their government so that no life is in despair from the lack of proper healthcare and medical supplies.

Pandemics test the human's capability to survive unfavourable conditions. So, if we are able to keep the composure and stay satisfactorily fit concerning all aspects of wellbeing, not only will we win the battle, but we will also prepare better for similar future events.



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e-Evolving

Flashback to late 2019; the world is moving in its own pace. Adults on their regular 9 to 5 duties, students in their regular classrooms, public buses overwhelming with passengers and market areas all crowded. Then the new year 2020 comes with some news of new pneumonia cases in Wuhan. On January 30, 2020, WHO declares the novel corona outbreak a Public Health Emergency of Global Concern. With the increasing number of the infected, the number of deaths rises, and so does the fear. Fast forward to March 11, the disease now named as COVID-19 is declared as a Global Pandemic by WHO. The most intelligent beings on Earth threatened by something totally new and highly contagious; ready to gobble up us all so brutally. Being the smartest we are, we managed to identify the virus, isolate it, tried to control the spread, treat it, and now we are on the way to develop a vaccine. Coming back to the present day, it's November and nearly a year of quarantine, isolation, and the word "COVID-19" everywhere. In the "new normal" we are living in, the 'new's are not just about masks and social distancing, it's also about the growing use of digital platforms for work, education, business, medicine, you list them all. We are learning to combat the virus and I guess we are e-Evolving. Telecommunications, Telemedicine, Tele-education and among all the 'tele's we have, I would love to highlight the Tele-education or e-Learning.

Humanity has survived several pandemics and the costs are too great. We can never be prepared enough for something we can't see coming. My country, Nepal, was not different. Struggling to prevent the worst with the limited resources we had, Nepal underwent lockdown on 23rd March, thereby shutting down all non-essential facilities and also schools, colleges and universities; with schools being shut down just a week ahead of the final exams. This was not only the situation of Nepal, but of the entire world. More than 1.2 billion learners in over 186 countries got affected by the pandemic. In an attempt to continue the halted work and education, digital platforms and e-learning took over in less than three months since the lockdown. Trying to keep up, my college also started the online classes for the lectures. Classes, conferences, webinars, etc. started running over ZOOM, Microsoft Teams, etc. It

was quite fun at the start. It is best this way for the theoretical classes, but the practical classes are still in limbo. You can't expect to dissect a cadaver over the internet or take the pulse of your practice partner.

E-learning has become a light in the dark; a way to continue the academic sessions and also prevent community transmission. It is not a brand-new system that popped just a few months back; it has been here for a couple of decades. The major advantage of e-learning is remote learning. Students can learn from their teachers at miles of distance. This makes the education system quite flexible. Students need not travel to the institutions which most of the times can be time and money consuming. From primary to tertiary, all levels have started the online classes in attempts to prevent further delays in the academic sessions, higher dropout rates, decreased academic performances and other problems of prolonged school closure. With the right resources and proper training, e-learning has an upper hand over the traditional face-to-face teaching-learning. Using various digital platforms and tools rather than just videotaping the physical lecture can make the classes more interactive, informative, and inclusive. Studies have shown that students tend to retain more information in online classes than physical classes. The rapid switch from physical to the digital platform has its pros and cons but at present, e-learning seems to be the best option.

We can do all the talks about the immediate need for tele-education, but many questions surface. "Do all the students have proper access to it?" "Is it effective?"



"What about practical classes?" "Aren't we missing out human interaction?" "What about the exams? Won't there be easy cheating?" and it continues. With centuries of traditional teaching-learning system, adopting something different is going to be dubious. Lack of preparation, training and internet facilities are major setbacks. Students can miss out the socialisation and peer-learning which is very effective in the physical environment. Only about 35% of the total population of Nepal has an internet connection. The students in rural areas are at a greater disadvantage because of lack of durable internet connections, low speed and bandwidth, irregular power-cuts, unavailability of proper devices etc. Targeting these students, radio and television broadcasts are being made but they provide a one-way communication and thus are not interactive. Even in urban areas, the problems of devices and expensive internet connection persists. Parents have additional worries about their children using too much internet, misusing it, health consequences and many more. Underprivileged students and those who can barely meet their needs might be deprived of the basic human right to education, further widening the socio-economic gap that already exists. The pickle is also for the teachers; connecting to all the students, keeping the interaction and motivation alive, using the right tools and resources for efficient understanding, all when sitting in front of a computer, can be quite stressful.

A debate on which one is better will have strong arguments on both the sides but



After all, isn't growing what we all want?

*To be dynamic, creative, striving to
improve and evolve.*

what I think is e-learning and physical learning complement each other. Incorporating e-learning with the traditional physical teaching-learning system to come up with a new "hybrid" can help make the best out of these two systems. In the medical field and other sectors, the importance of e-books, e-libraries, simulation apps, and such is tremendously growing. Use of suitable virtual learning environment software along with audio, videos, simulations can enhance the learning experience. With some time and amendments, e-learning can be very promising in terms of efficiency and reach. It's all about changing according to the time, developing better ideas and not getting left behind in the competitive world; both online and offline. After all, isn't growing what we all want? To be dynamic, creative, striving to improve and evolve.

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COVID-19 AND FEAR OF VACCINATION:

LESSONS WE ONCE LEARNED BUT
FORGOT FROM THE POLIO WAR

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AMSA-Singapore



Introduction

COVID-19 has emerged as a global health threat since the World Health Organization (WHO) officially declared global pandemic on March 11, 2020 (1). As of August 2020, there are about 22 million cases of COVID-19 and this infectious disease is related to about 790,000 deaths in the world (2). In addition to the substantial toll on global health, this pandemic impacted all aspects of life, such as social activities, education, and traveling worldwide. Due to the immeasurable social, emotional, and medical damage caused by COVID-19, there is an urgent need for COVID-19 vaccines. Indeed, there are several active clinical trials to test the safety and efficacy of COVID-19 vaccines; 21, 13, and 8 respectively in Phase 1, 2, and 3 and with 2 approved vaccines as of August 2020 (3). Although the COVID-19 vaccines have not been even officially introduced to the public yet, there is a growing number of concerns over the safety of vaccines and is an ongoing movement of anti-vaccination. The pandemic of infectious disease and the anti-vaccination movement recalled the polio war that our ancestors had to experience. We once learned an invaluable lesson from the hardships of our polio ancestors; the importance of vaccination to save lives. Unfortunately, we forgot this lesson over the past decades due to the fear of vaccine-related diseases. In this article, the history of polio war and the lessons that our ancestors taught our generation are going to be reviewed.

History of Polio

Poliomyelitis is a life-threatening infectious disease caused by the poliovirus. A patient with polio was first depicted in the Egyptian fresco suggesting polio existed in ancient Egypt. The first official clinical description of polio was provided in 1789 by a physician, Michael Underwood (4). Despite the early report of polio, polio first emerged as an epidemic infectious disease in around 1900 in the United States. The first large epidemic was observed in New York City of the United States in 1916 which contained 9,000 cases of infection which ultimately led to 2,343 deaths (5). It was postulated that this epidemic outbreak was ironically caused by improved sanitation which led to less exposure to the poliovirus and the lack of maternal antibodies to attenuate the viral spread in the community; the improved hygiene weakened the immunity in the US society which led to an uncontrolled outbreak of polio (5).

The poliovirus is spread through a so-called “fecal-oral transmission.” Intake of the poliovirus from polio carriers leads to the implantation of the virus in the GI tract. The poliovirus invades intestinal epithelial cells via CD115, a receptor which internalises polioviruses, and replicates inside the host cells by hijacking the cellular machinery. The polioviruses invade into the bloodstream and cause viremia. In addition, polio infects and replicates motor neurons leading to cell lysis and neurological paralysis. Upon the infection, the virus incubates for up to 20 days without evident symptoms. During this asymptomatic period, the infected patients shed the polioviruses through defecation up to 6 weeks which infect other hosts, mainly other family members.

Polio was one of the biggest health threats because many of the infected hosts shed the virus without any symptoms and only less than 10% of the patients displayed noticeable abnormality, including flu-like symptoms, GI irritation, and paralysis. There were two major complications of polio: paralysis of diaphragm which impaired breathing and paralysis of limbs which led to partial immobility. Particularly, polio negatively affected the general health of the survivors of paralytic polio even after their recovery because the affected motor neurons were more susceptible to neurological insults that the survivors later developed neuro-degenerative symptoms over their lifetime.

Initiative for Polio Vaccine

During the peak of the polio epidemic, there were about 20,000 cases of paralytic polio annually in the US alone. Considering the fact that only 1% of the polio patients displayed paralytic polio, the annual cases of infection could be up to 2,000,000. There were about 500,000 cases of paralytic polio and death worldwide, indicating that polio was not just an epidemic but also a pandemic issue of mankind. The constant fear of polio and the substantial toll on public health fueled demand for polio vaccines.

The poliovirus was first cultured in vitro in 1948. The isolated viral particles enabled to generate antibodies which could neutralise and confer passive immunity in 1950. This result was informative because this experiment revealed the serotype profile and their protective properties; immunoglobulin A (IgA) to prevent infection and IgM/IgG to prevent symptoms. In 1952, Jonas Salk developed an inactivated polio vaccine (IPV). This IPV was administered in over 1 million children in 1954. However, this vaccine was not licensed at this time, but the vaccination was officially introduced due to the urgency of the polio outbreak.

In 1955, a number of cases were reported that children became paralysed following vaccination for polio and the children received vaccines that were manufactured by Cutter Laboratories which was one of the three manufacturing companies. It was later determined that 120,000 doses of vaccine produced by Cutter contained live polioviruses due to manufacturing and calculation errors. Of the children vaccinated, 40,000 developed abortive polio, 51 were permanently paralysed, and 5 died. Moreover, polio caused by the vaccine also started a polio epidemic that further paralysed 113 and killed 5 more people. The vaccines from Cutter were recalled and IPV vaccines which did not contain the live poliovirus were supplied to control the epidemic in the US and worldwide. Despite the incident of contamination in the polio vaccine and an outbreak caused by the vaccine, IPV vaccines, along with oral poliovirus vaccines (OPV), successfully eradicated polio in most of the countries as of 2020.

Lessons Learned from the Polio War

The polio war is one of the most successful cases of biomedical research given the fact that this vaccine has saved millions of lives in the world. However, biomedical scientists and physicians rarely talk about this scientific breakthrough to the public due to the tragic outbreak of polio caused by the vaccine itself. Indeed, this outbreak raised distrust for vaccines and breached professionalism of the biomedical society. Furthermore, this incident fueled the movement of anti-vaccine, which was later significantly intensified by the falsified medical report of Andrew Wakefield in the Lancet Journal. In 1998, a gastroenterologist, Andrew Wakefield reported that there was a correlation between measles mump rubella (MMR) vaccine and autism, which was later revealed to be false. According to the report, 8 children developed GI symptoms and autism following vaccination for MMR. In the paper, Wakefield hypothesised that the MMR vaccine caused intestinal inflammation, which allowed the movement of non-absorbed peptides into the bloodstream and subsequently to the brain which ultimately led to autism. Following media reports of the Wakefield paper, the MMR immunisation rate began to fall below the levels of herd immunity which grants indirect immunity through high rates of vaccination in the community and thus disconnection of the infectious chain. This rapid drop in MMR vaccination led to an outbreak of MMR cases in the U.K. Although Wakefield's paper later was officially retracted and disputed by a number of research papers, the myth for possible autism by vaccination has survived and has been an issue of public health. In summary, our polio pioneers learned the importance of vaccination from their own hardships, death, and severe physical complications, such as paralysis and immobility.

These incidents have raised distrust over vaccination and biomedical technologies and have fueled an anti-vaccine movement. Even though we all live in the era of COVID-19 where our lives are under a constant threat, there is still an ongoing movement for anti-vaccination. This is time to recall the lesson we once learned. In order to conquer this infectious disease, we need COVID-19 vaccines. More importantly, we need to maintain at least 90% of the vaccination rate to eradicate this disease. For this goal of public interest, there should be active communication between medical societies and the public regarding the safety and efficacy of vaccination. As our ancestors are often called “the polio pioneers,” one day in the future our generation will be called “the COVID-19 pioneers” by our future descendants.

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BRINGING S



Gauri Mehta

Rajiv Gandhi University of Health Sciences
AMSA India

‘Progress is impossible

without change’

In so many years of education, no one could have ever imagined what school life would be like without the most important part, the school itself!

The COVID-19 pandemic brought the world to a standstill. As all sections of the society were gravely affected, so was the education of students, right from kindergarten to professional courses. Overnight, learning methodologies had to be revamped and technology wonderfully came to the rescue! In the wake of an online lifestyle, students and teachers both learned and adapted to make ends meet.

The pandemic has put at stake the entire structure and delivery of undergraduate and graduate medical education, the crux of which being in-person teaching. Today, interactive video-conferencing platforms have been adopted to replicate a classroom atmosphere. While theory can be taught over online platforms and pre-recorded videos, actual bedside clinical skills are severely compromised. Pro-active discussions with peers and faculty, learning spaces and the student’s clinical experiences often teach them beyond the assigned textbooks. Alongside medical knowledge, student-patient interaction teaches them basic life skills required to be a good physician. William Osler once said, “Medicine is learned by the bedside and not in the classroom.” However, the ongoing pandemic to a fair extent is impinging student learning and hence is a major concern in regard to the future of medical practice.



SCHOOL HOME

This outbreak has additionally widened the gap between those able to access online learning and those who are not. Students with limited technological resources particularly are at a disadvantage, causing hindrance in their education.

Bridging the gap and bringing a touch of reality to online learning, students should be engaged in various educational programmes to keep up with the curriculum. More real-time interaction between educators and students should be encouraged. Keeping in sight the long-term impact of the current pandemic, high-quality medical education should be maintained by optimising the use of emergent technologies. Seamless integration of virtual reality simulation-based healthcare training, case development, and virtual patient interaction are some ways through which remote online medical education can be improvised.

Thus, the need of the hour is not only to recognise the current shortcomings in online medical education, but to embrace emerging technological competencies to optimise student learning.



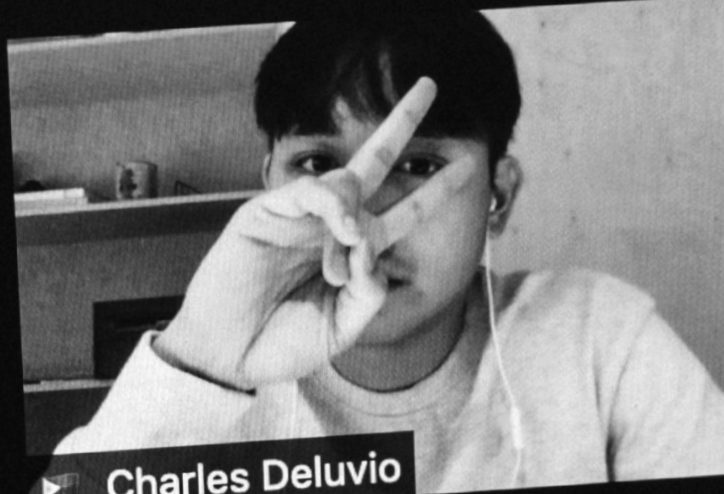
Chris Liverani



Pina Messina



Tim Bones



Charles Deluvio




Steph Liverani



Karol Majewski



A black and white photograph of a computer keyboard with a window in the background. The keyboard is in the foreground, and the window shows a blurred office scene. The text is overlaid on the image.

CHAPTER OR

**UNIVERSITY
EVENTS**



Cecille Ann Cayetano

San Beda University
AMSA Philippines



Ricka Pauline De Guzman

San Beda University
AMSA Philippines



Jhef Joseph Ebuenga

San Beda University
AMSA Philippines



Karsten Sean Solas

San Beda University
AMSA Philippines

**“Mental Health During
New Normal: Kumusta
Doktor Namin?” Web**

g the ang inar

Mental health plays a crucial role in building one's wellbeing. The right to mental health is a fundamental part of our human rights and understanding of a life in dignity. According to the WHO constitution, it states that health is a condition of complete physical, mental, and social wellbeing and not entirely the absence of disease. This is an important implication that mental health is more than just the absence of mental disorders or illnesses. Moreover, mental disorders contribute to a substantial burden of disease in the Philippines. And the clearest evidence relates to the risks of mental illnesses is associated with indicators of low levels of education. Sadly, there is still a wide gap in understanding the burden of having mental disorders as a public health emergency and raising concerns on the issues about mental healthcare. In line with this, public health seeks to improve our healthcare system by addressing our community about the current stigma and discrimination of mental disorders as main barriers to accessing quality care and treatment. On this basis, the promotion, protection, and restoration of mental health are considered as a vital concern of the Standing Committees of Public Health (SCOPH), Human Rights and Peace (SCORP), and Medical Education (SCOME) of AMSA Philippines.

In celebration of World Mental Health Day last 10 October 2020, Social Action Medical Students' Association (SAMA) - San Beda, a local member organisation of AMSA Philippines, held a webinar about the mental health and wellbeing of medical students in collaboration with SCOPH, SCORP, and SCOME. As most students have encountered during their family reunions, even before the new normal as Filipinos, relatives would often ask "Kumusta ang Doktor Namin?" or "How is our Doctor Doing?" – hence the title of our webinar. We also wanted to ask this question to see how they are doing amidst the new normal. To provide a quantifiable answer, we also conducted an ultra-brief screening scale for anxiety and depression using the Patient Health Questionnaire-4 (PHQ-4). We wanted this webinar to help guide them on how to deal with these mental health issues, how they can cope, and how it is okay to seek professional help.



The first topic for our webinar was about the common mental health issues that medical students are currently facing during the new normal. Our speaker for this topic was Dr. Ma. Joyce C. Joyas, a professor at San Beda University – College of Medicine from the Faculty of Psychiatry. According to research that she presented, the unpredictability and uncertainty of the COVID-19 pandemic could increase the risk of mental health problems among people. In another study that Dr. Joyas presented, it highlighted the impact of quarantine on the mental wellbeing and learning behaviours of medical students and found that about one-fourth of the students felt depressed during the quarantine period of two weeks. It puts into perspective, what more in our country with about 7 months into quarantine.

The next topic was about stigma in seeking help for mental illnesses which was delivered by Ms. Maria Gereque Wel Armedilla-Villaranda, MA, RGC, a guidance counsellor from the College of Medicine at San Beda University. One of the reasons why people do not seek medical help is due to the stigma associated with mental illnesses. Most of the mental health problems here in our country are made worse by this stigma and discrimination that individuals experience from society. These exist mainly because most people do not understand mental health and they usually have a negative attitude towards people with mental illness. During the discussion of this topic, the components, causes, importance, and prevention of stigma were addressed by the speaker. Several myths and realities about the stigma were also discussed. According to Ms. Villaranda, receiving help from others is

the most important thing anyone can do for themselves but unfortunately, the stigma keeps people from getting help. Mental illness should not be something to be ashamed about or thought of differently. Also, she added that we should stop secluding individuals who are suffering from mental illness and start reaching out instead. And by that, if mental illness is treated equally to other illnesses, more individuals will have the strength and courage to get help as they improve their lives.

The last topic for this webinar was about mental health hygiene with “The Millennial Psychologist” Ms. Riyan Portuguez, RPM, RPsy as our guest speaker. Ms. Portuguez discussed the implications of COVID-19 on medical students and during this pandemic, symptoms of different mental illnesses exacerbate due to the remote set-up, uncertainties which breed fear, and lack of support from others. The question “how

are you?” is very powerful as it increases social and emotional connection to others which is important nowadays. To improve our mental hygiene, we must focus on “here” and “now”. Other things that we can do to improve our mental hygiene are the following: Recognise the problem, examine and challenge through journaling, re-attribute the cause of the problem, have self-compassion, focus on the things that you can control, do self-care activities, talk about it and ask for professional help. She ended her discussion by saying that we need to find our choice to be a better person. We need to look for responses especially to our why questions as these will help us to keep on going despite the challenges. We should not think that we are trapped in a situation as we can do a lot of things.

The event will not be complete without games and icebreakers. We wanted everything to be balanced since our topics can be quite heavy to absorb. After every speaker, a game or ice breaker is conducted. The first game was “4 Pics, Guess the Words” which was facilitated by Ricka De Guzman and Lawrenzo Baltazar of SCORP. Here, participants have to guess the words using the four pictures flashed on the screen as clues. They have to put their answers in the chat box and the first one to get the correct answer is the winner. Next, we were given an outstanding performance by Janina Gatmaitan, a second-year medical student as she gave her own rendition of Lady Gaga’s song “Million Reasons”. Lastly, Jhef Joseph Ebuenga and Michelle Bascara of SCOME conducted the “Bingo: Quarantine Edition” game. Instead of numbers, things that participants have done or experienced from Day 1 of quarantine are placed in a roulette. Participants have to mark the statement in their bingo cards that applies to them. All participants enjoyed it since they all relate to it like being a “plantito” or “plantita” (adults who are into planting and gardening) and having “quarantlings” (online dating during quarantine). Winners of the games will receive SAMA - San Beda merchandise once face-to-face classes resume.

MESSAGES FROM THE STANDING COMMITTEES

“SCOPH aims to inform the public regarding facts about mental health in general and the mental health of medical students as well, especially in this difficult time. We want people to realise that mental health conditions are real and should be recognised as a priority not only by the government but also by medical institutions. We believe that mental health literacy and effective mental health support services lead to a better and healthier nation. As the local head officer of SAMA San Beda’s SCOPH, I want to take this opportunity to tell the readers that mental health is still a subject that is still avoided by many, either at workplaces or at home. We can change that. We can do so much to help eliminate the stigma regarding mental health and we can start by genuinely caring. To all medical students, no matter what you are going through right now, all the feelings that you have are valid. I want you to know that you are not alone. As Alice Morse Earl said, “Every day may not be good, but there is something good in every day.” Let us all unite and continue to hope for better days.”

Cecille Ann Cayetano

Local Officer on Public Health, SAMA-San Beda

“As the local officer of Human Rights and Peace, our advocacy is to raise awareness that access to mental health services is a right and that the Mental Health Act is there for a reason: to be free from stigmatisation and discrimination. In our country, it is considered a taboo to seek help. They mostly think that going to a psychiatric clinic or psychological centre means that you are going ‘insane’. Leaving other people scared to seek help, scared to be judged by other people. But in SCORP, we believe that we should break these barriers by educating ourselves and the people around us.”

**Ricka Pauline
De Guzman**

Local Officer on Human
Rights and Peace
SAMA-San Beda

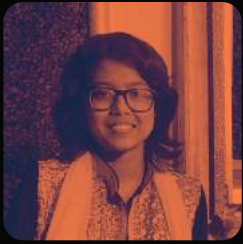
Jhef Joseph Ebuenga

Local Officer on Medical Education

SAMA-San Beda

“Mental health education should be a concern of every individual and society throughout the world. SCOME aims to be the frame in which advocates contribute to the development of mental health education. SCOME believes in each one of us as important stakeholders in creating, developing and promoting wellbeing. Through all our joint efforts we work to create sustainable changes for our community, for the generations to come, and for our future patients who are in fact the final beneficiaries of our education.”

Virtual Collaboration: AMSA Bangladesh & AMSA Indonesia (AMSA Maranatha Christian University)



Anika Nusrat Raisa
Ibrahim Medical College
AMSA Bangladesh



Md. Waliullah
Shaheed M. Monsur Ali
Medical College
AMSA Bangladesh

Over the last decade, our world has become within our hand. We have different categories cultures and people in this world. But to explore those difference among people, it becomes a subject of interest nowadays.

This year AMSA Bangladesh planned many amazing programmes, but unfortunately, they had to drop the plan due to the pandemic the world is facing currently. However, the pandemic could not stop the creative minds of the members of AMSA Bangladesh. Therefore, they came up with an amazing idea of arranging a virtual collaboration with AMSA Indonesia.

The concept of the virtual collaboration is quite new and unique. It has multiple interesting segments like ice-breaking sessions, cultural segments, academic group discussion, medical quiz and many more. The entire programme conducted over ZOOM.

This programme is offering students of both countries a chance of adoption of multi-faceted approaches to learning, academic scopes and diversities, language acquisition through practical immersion and a tremendous sense of accomplishment which will help them to develop an individual opinion and strive to attain fresh goals.

Programme Schedule:

Date: 21 August 2020

(Bangladesh Time: GMT +6)

Opening session
Introduction
Presentation: AMSA BD
Presentation: AMSA MCU
Ice breaking
Prayer time
Culture & Tourism Spot by AMSA MCU
Presentation on Culture & Tourism Spot by
AMSA BD
Small-Group Discussion
Closing

Topic:
#AMSA MCU 1st Presentation:
Skeleton of Medical Education in Indonesia -
Undergraduate
Skeleton of Medical Education in Indonesia -
Postgraduate
Post-Graduation Opportunities
COVID-19 in Indonesia
AMSA MCU / Indonesia Activities during
COVID-19

#AMSA MCU 2nd Presentation:
Culture of Indonesia
Culture of Bandung
Tourism Spot in Indonesia
Tourism in Bandung (Ringkas) ALIF

#AMSA Bangladesh 1st Presentation:
History of Bangladesh
Famous Places in 8 Divisions of Bangladesh &
Traditional Foods
Skeleton of Medical Education in Bangladesh
(Undergraduate and Postgraduate)
Job Opportunities for Doctors in Bangladesh
AMSA Bangladesh Activities
Corona Period Work
Achievements

#AMSA Bangladesh 2nd Presentation:
Culture of Bangladesh
Tourism Spot in Bangladesh

#Ice Breaking:
Surprise Show
Song from Bangladesh
Song from Indonesia
Discuss about the songs and others

#Small Group Discussion:
There were 10 groups. Each of it consists of six
(three Bangladeshi / three Indonesian) mem-
bers:
In this event, there was
Medical Quiz
Scramble Words
Move Telling
Free Discussion

This collaboration was an amazing experience for all the participants & organisers. It improved our communication with AMSA MCU (Indonesia) as well as our leadership quality. We hope to arrange this kind of programme further to boost our proficiency, awareness & relationship.



CU
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CULTURE CORNER

HASSAN

The Junctional Hub

Lovely place, a junction of all.

Hassan city is such a splendid and divine city. In and all itself the city has no tourism to offer, but it's got all the tourist places within its reach. Hassan is a junctional link to Mangalore, Chikmaguluru, Mysore, Mandya, Sakleshpura, Belur and Halebeed and many such amazing tourism places in and around Hassan. Thus, it bridges the places to a common terminal and countless adventurers pass through here.

The people of Hassan are noble-minded, benevolent, and heartwarming. They may be a little hot-headed sometimes but never let their guard down. They are compassionate towards outsiders and guide them with such grace! "Wow! Great people!" one must think. Hassan is relatively humid, dry, and dusty throughout the year, but on a rainy season, one shall witness the dance of Gods.

Hassan city gets its name from the Hindu goddess Hassanamba. The temple was built in the 12th century and tourists are only allowed to visit the temple once a year during the Hindu festival Deepavali. The temple will open for 11 days from 5 to 16 November. Lakhs of devotees including ministers, MLAs, movie personalities, and people from abroad visit the temple every year to offer sarees, gold, and silver ornaments to Goddess Hasanamba to receive her blessings.

The food is exquisite with a spray of spices everywhere. Hassan is famous for its bakeries; each and every road would have at least one down the corner. The cakes are just so soft and delicious, mouth-watering, sweet tended biscuits yes, please!

Don't fire up guys, calm down! Hassan is not shy on its spicy nosh-ups. The city boasts of many high-end restaurants



Hassan District Court

and bars with excellent ambience and quality. Those who'd like some street masala are always welcome at the Chat Street; probably everyone in Hassan knows the location of it. The entire street is flooded ranging from food stalls to other eateries.

All in all, I would like to say life in Hassan isn't luxurious and you definitely don't need deep pockets to thrive. Hassan enraptures its audience with its serenity and divinity. Make sure to visit this holy place on the way to any of the tourist locations on the way. Do give the city a chance and it'll grow on you for sure.



Written by : Anveshak

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AMSA India



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The Japanese

It is generally assumed that nothing thrilling ever happens in villages and small towns. At the most, people's lives revolve around a tree in the square, under which folks might stop to exchange some mild gossip.

With their malls and multi-story buildings, big cities are denied such quaint charms; rather bring out your old copy of Proust's 'In Search of Lost Time', set in the small town of Combray, France, to experience the pleasures of such sleepy settings. Otherwise, you may take a walk in the gardens of Delhi's Swarna Jayanti Park, which is perhaps just what one needs to rejuvenate the body and soul among all the pandemic era stress. The serene north-west Delhi Park is an enclave of a multitude of plant species. Surrounded by two towering malls on its western side and busy expressways on the opposite, it comes to be a saviour right in the middle of northern Delhites' busy city life.

Even as one enters these gardens, they are greeted by the exotic aroma of Indian cuisines, such as Kachaudis, Pani Ppuris, and refreshing tea originating from a variety of mobile stalls parked adjacent to its entrance. A few steps ahead into the parking area, you may catch the heart-warming sight of a group of friends about to part ways, greeting each other goodbye, until their next visit of course. Because of the immersive experience it offers, the Swarna Jayanti Park has rightly become one of the most important social hubs of north-west Delhi.

Starting the walk into the main area, a fork in the footpath reveals that these grounds offer refreshment to both body and mind, as one is compelled to make the choice between delving into the recreational garden or the sports grounds. For now, let us seek refuge in the arms of Mother Nature.



Park

The recreational garden often called the “Japanese Park” due to its design, is truly something to feast the eyes on! Embellished with its uniquely shaped pond inhabited by a raft of white ducks and a plethora of colourful flowers, this place often offers recluse to lovers of all ages and people wishing to spend quality time with their faithful companions, their pet dogs. Occasionally, there may be seen children frolicking around their elders amidst a traditional family picnic, a forgotten joy.

As one continues their walk alongside the pond and onto the footbridge, a partially broken boat shaped in the form a swan is visible directly under the bridge, reminiscent of a time when the pond used to be much more than a home to the ducks, but also home to the merriment of many families and friends. Old-timers like me often enjoy the nostalgia of childhood memories, when these very grounds were the height of amusement with their thrilling and adventurous joyrides. A short walk further lies the nest of the ducks, where the caretaker can be seen sitting beside his hut, preparing food for all those birds.

In my opinion, the best time of the day to visit this place is during the sunset, during which, if only one has the right perspective, the Sun can be seen setting directly

between the two malls giving the feel of a modern-day landscape, where mountains have been replaced by man-made towers. One can savour all this scenic beauty while comfortably resting on one of many stone benches, located hither and thither beneath trees with funnily shaped canopies all the while diving into the sweet music that the blend of bird chirps becomes and the charm of these yards, only to be enhanced by the rich colours in which the sunset immerses them.

Written by : Jay Verma

Maulana Azad Medical College, New Delhi
AMSA India





10 November 2020

As of this writing, Macau had 46 confirmed COVID-19 cases, all the patients had recovered and were discharged from the Conde S. Januário Hospital. The second last patient was confirmed on 8 April and the last patient was confirmed on the 26 June. The last patient was discharged from the hospital on the 17 July. So, Macau had no active cases for 117 days until now.

As far as medical school is concerned, we are conducting both face to face and online learning. Some of the professors, lecturers, and oversea students are not able to come to Macau due to the current quarantine requirements or visa restrictions. Despite all of this, the students who are in Macau now are able to conduct practical and clinical sessions face to face. We are required to wear mask and practise social distancing at all times while we are at the university. We acknowledge the fact that medical professionals around the globe are still fighting COVID-19 as best they can to save lives, and we would like to express our gratitude for their dedication



Greetings from Macau!

and sacrifice. We fervently wish that the pandemic can be under control soon and eventually die out. We hope medical students from around the world can get back on track with their studies and other extra curriculum activities as soon as possible.

Hugs from Macau!

Written by : Wong Yuk Wing

Faculty of Medicine, Macau University
of Science & Technology, AMSA Macau



MACAU





HOBBIES

BENEATH THE OCEAN BLUE



Breathe in, breathe out. This is a strange realm, where the laws of land do not apply. Strange, but peaceful. Silent, yet violent, in the blink of an eye. Ever since the tender age of 13, I have enjoyed the sport that brought me to the ocean – scuba diving.

The word 'sport' seems inadequate to describe the real size of this experience. One learns soon enough, that the most important aspect, is equipment. Oxygen tanks, buoyancy control devices, regulators, exposure suits (wet or dry), masks, fins, pressure and depth gauges, dive computers/dive tables, are the most important pieces of equipment to traverse underwater. Rigorous training to use this equipment begins on land, ventures into the swimming pool and finally, enters open water.

The ocean is home to some of the most stupendous creatures. I can brag, without a trace of shame, that I have seen and swum with these creatures on their home turf.

The most peaceful of these experiences has been one where we have swum beside this misunderstood ocean dweller – the grey reef shark.

Some of the undersea denizens love the chase. In my experience, they are – manta rays, eagle rays, and moray eels. They are powerful, but playful. They favour the regions of strong ocean current, or swimming on the surface.

There are a third variety of sea creatures – those who live in the deep, come to the surface to breathe or feed, and above all, do not trifle themselves with others. The whale sharks and whale are under this category.

Swimming with them is a task that leaves you without air within 20 minutes. Despite their bulk, they are extremely agile and swift, and very vegetarian.

There's a lot to be said for the smaller sea creatures as well. A school of fusiliers in a feeding frenzy, a lone lionfish, waiting in the sand, ready to poison its prey, nudibranchs hanging off large fan shaped corals, clownfish swimming within anemones, lazy sea snakes curling around rocks, and finally, dolphins escorting us to our boat.

This world is one that is dear to the hearts of scuba and free divers all over the world. We work to keep it, protect it and study it, so that future generations will learn that they dwell along the ocean, a home for the most wondrous creatures on the planet.



Written by: Mithilashri Nagdev
MBBS, Rajiv Gandhi Institute of Medical Sciences.
AMSA-India

CAN WE SING OUR WAY OUT OF THE DISEASE?



Written by: Sumedha Pandey
Rama medical College, Kanpur
AMSA-India

“Music has healing power. It has the ability to take people out of themselves for a few hours.” - Elton john

Music has been used as a healer innumerable times metaphorically for a very long time. Since the 1800s, music has formed a very crucial part of various treatments.

The rhythms can not only make you dance but can actually heal you mentally and eventually the effect can be seen on your physical status.

Daily Life Rescue Operation by Music

The 21st century is considered to be the most dreadful condition in terms of mental health. We are ignoring the personal space that we require for ourselves to recover from all that goes around in life. We are certainly running after becoming the best as professionals but losing ourselves personally.

Now, this is where music comes into play, while you were sulking deep in sorrows somewhere in the corner of your rooms, your playlist must have rescued you out of it. You must have experienced it yourself that there comes a time when you want to give it all up but then when you feel the lyrics of some song it feels like someone is talking to you pushing you up to rise and be a slayer. There have been so many musicians like Eminem, who actually gave up on life but their passion for music somehow gave them the reason to survive.

Lullaby and Infants

Have you ever wondered why you sing to your baby to sleep, and not dance? A funny question right! Yet an important one. It has been noticed that baby hearing low soothing musical sounds tend to calm their minds and give them a sense of comfort and protection.

In some neonatal intensive care units (NICU), they use “ocean discs” and “gato boxes” to create double heartbeat sounds and vibrations like inside the womb for preterm baby’s proper growth and better eating-sleeping patterns. So next time you are singing a baby to sleep, make sure your volume and tone are proper.

Inflammations Handled Musically

Researchers have found out that music tends to reduce stress cortisol and increase the immune system response by increasing the level of antibody IgA & NK cells. It's been seen that music decreases the anxiety attack, lowers BP & Cholesterol, hence lowers the risk of acute myocardial infarction.⁵

This treating of sound healing through music therapy is known as Music Therapy, various techniques used in it are:

- Guided meditation
- Neurologic music therapy
- Bonny method
- Nordoff Robbins method
- Tuning Fork method
- Brainwave entrainment

Music therapy helps in increasing pain tolerance and acts as a source of relaxation and hope in cancer patients.

Neurological Diseases and Music Therapy

Some patients start being over depressed only on seeing the drug prescriptions which worsen their neurological diseases. Music therapy has been found to create some stability in cognitive functions of the brain and hence improve their speech, sleep & other physical abilities.

It's also being proven that learning a new musical instrument every time will enhance your cognitive abilities. Music therapy helps in the treatment of the following disease:

- Post-traumatic stress disorder - by increasing the level of endorphins and decreasing anxiety attack
- Risk of Stroke
- Decreasing the Epileptic and migraine attack frequency
- Parkinsonism - reduces the rigidity and involuntary body movements
- Autism - by enhancing learning ability
- Cerebral palsy- vibroacoustic therapy uses sinusoidal low frequency sounds to tone the brain waves and improve brain function.

- Alzheimer's disease - music therapy increases the power of retention and recall in such patients.

Movies and Music Therapy

There have been various movies which were made on the fact how music helped the characters survive their tough times in life, to name a few:

- The Notebook - A very famous Bollywood movie that showed an old age protagonist suffering from dementia starts to regain her memories when her husband sings to her their love story.
- It's Kind of Funny Story - It's a story about a shy psychiatric patient who learns to express and enjoy musical instruments with encouragement from his group members.
- The Music Never Stopped - It's about the how music bond's father and ill son suffering from brain tumour where music aids in bypassing the blockages in brain [6]
- Dear Comrade - It's a South Indian movie where the lover boy joins a team working on healing through nature's music which helped his partner to overcome psychological trauma.

We have heard about how Mozart music has been a healer of so many broken hearts and how Tansen's music could bring rain to barren land through his "Megh Raga". Music has proven that it's not just an art but a medicine with no side effects, soothing infants to old age.

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wright 8notes.com 2005

People tend to ask me, “Bro, how do you watch so many films?”

I would slyly reply, “I watch films that deserve it”.

As a film freak, I must say that I am over the moon seeing the latest trends and direction in which the film industry is progressing, especially here in India. New, innovative, true ideas are being put forth, talent is being recognised, and nepotism is under scrutiny. People have started noticing and recognising worthy content and talented performances instead of running behind stars and their productions like a flock of sheep. Though I am not a huge fan of reading novels, I do watch their film adaptations. My favourite till now has been The Lord of the Rings trilogy. I do agree there's no comparison between those two and many might start judging me already. I do agree with the phrase ‘Never judge a book by its film’. With this pandemic, the OTT platforms are on the rise and mainstream media has shifted from films and cinema halls to streaming services. This has added a much-needed boost for those talented people to showcase their crafts. I hope that flashy, commercial, script less and cringe films will be out of the industry, paving way for better and true stories to be told.

As Robert Frost once wrote,
“The woods are lovely, dark and deep,
But I have promises to keep,
And miles to go before I sleep,
And miles to go before I sleep.”

I am a medical student and a gamer. Sounds absurd, right?

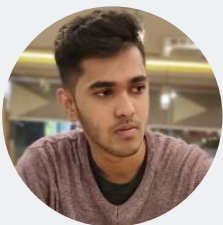
But when you have the passion and perseverance then anything is possible in life. Well, this pandemic has been a boon to me to hone my skills. With the next-generation console coming out soon, the gaming world is in no tracks of stopping. With the upcoming developments and new consoles such as the PS5, it has revolutionised and pushed the grounds for artificial intelligence and virtual reality. With the advancement in many regards such as astounding graphics and design, intricate plots, gameplay and improved compatibility, the gaming industry has just blown away everyone and silenced its critics.



Now upon talking about my hobbies, I love sports, never get tired of enjoying them honestly. I play football most at times and I am pretty well versed in cricket, kabaddi, volleyball, basketball, Kho Kho, and many other games. I believe being able to play is a virtue not to be wasted in nonsense indulgence.



Sports is beneficial to all of us and we must learn to embrace it. It does not matter how bad you play or how little time you get, sports should be an integral part of one's life. I humbly request the readers to imbibe at least some sports in their esse.



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DAILY DOSES OF MOZART!



Written by: Anushree Rai
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Music is a fundamental attribute of the human species. Virtually all cultures, from the most primitive to the most advanced, make music. It's been true throughout history, and it's true throughout an individual's lifespan. In tune or not, we humans sing and hum; in time or not, we clap and sway; in step or not, we dance and bounce.

In every era of human history and every society around the globe, music has allowed people to express their feelings and communicate with others. More than simply expressing emotions, music can alter them; as British dramatist William Congreve put it in 1697, "Music has charms to soothe a savage breast." Music and healing once went hand in hand. The Chinese character for medicine includes the character for music. In ancient Greece, music was used to ease stress, promote sleep, and soothe pain. Native Americans and Africans used singing and chanting as part of their healing rituals. In Western medicine, the connection was gradually broken when the art of medicine gave way to the science of medicine. It's slowly being restored as music therapists demonstrate the value of music for treating people with everything from Alzheimer's disease to chronic pain and substance abuse problems.

Like any sound, music arrives at the ear in the form of sound waves. The external ear collects sound waves, and the ear canal funnels them to the eardrum. As the waves strike the eardrum, they cause it to vibrate. The vibrations are relayed along the chain of tiny bones in the middle ear until they reach the third bone, the stapes, which connects to the cochlea.



***THE MOST HIGHLY
PUBLICISED MENTAL
INFLUENCE OF MUSIC IS
THE "MOZART EFFECT."***

“

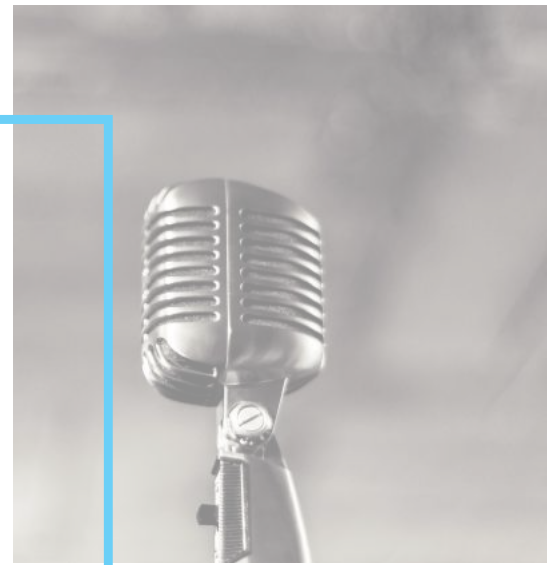
Music—or at least some forms of music—acts as an "exercise" that warms up selected brain cells, allowing them to process information more efficiently.

How might music enhance cognitive performance? It's not clear, but the researchers speculated that listening to music helps organise the firing of nerve cells in the right half of the cerebral cortex, the part of the brain responsible for higher functions. According to this construct, music—or at least some forms of music—acts as an "exercise" that warms up selected brain cells, allowing them to process information more efficiently. It's an interesting theory, but before you rush out to stock up on recordings of Mozart's music, you should know that even in the original research, the "Mozart effect" was modest (8 to 9 IQ points) and temporary (15 minutes).

It's a sour note, but it's hardly a requiem for the theory that music may boost cognitive function. In fact, the divergent results should serve as a prelude to additional research. And even if listening to music turns out to have a little long-term effect on cognition, a 2010 review reported that learning to play an instrument may enhance the brain's ability to master tasks involving language skills, memory, and attention. And in reviewing 16 studies of Mozart's music and human cognitive function, a Harvard psychologist concluded that the effect was even smaller, amounting to no more than 2.1 IQ points.



Researchers at the music and neuroimaging laboratory at Harvard-affiliated Beth Israel Deaconess Medical Center have shown that singing lyrics can be especially helpful to people who are recovering from a stroke or brain injury that has damaged the left-brain region.



You may have seen the award-winning documentary film *Alive Inside*, which was released in 2014. It follows Dan Cohen, a social worker who is bringing music to people with dementia in nursing homes. Cohen asked a documentary filmmaker to follow him around for three days to witness the astounding effect that music was having on the behaviour, mood, and quality of life of patients who appeared to no longer have much of a connection to themselves and the world. The filmmaker was so moved and impressed that he followed Cohen for months and created this film. Cohen's method is fairly simple. He asks a resident's family to list the songs or instrumental pieces the person once enjoyed. He then creates an individualised playlist on an MP3 player for the resident. The music, which ranges from jazz to rock to classical, elicits surprising reactions.

The music seems to open doors to the residents' memory vaults. There is a growing body of evidence to explain why people in the film come back to life and begin to feel like their former selves when they listen to their playlists. Listening to and performing music reactivates areas of the brain associated with memory, reasoning, speech, emotion, and reward. Two recent studies—one in the United States and the other in Japan—found that music doesn't just help us retrieve stored memories, it also helps us lay down new ones. In both studies, healthy elderly people scored better on tests of memory and reasoning after they had completed several weekly classes in which they did a moderate physical exercise to musical accompaniment. Researchers at the music and neuroimaging laboratory at Harvard-affiliated Beth Israel Deaconess Medical Center have shown that singing lyrics can be especially helpful to people who are recovering from a stroke or brain injury that has damaged the left-brain region.



However, not all trials have been successful. Several found that music had little effect on physiological measures like heart rate or blood pressure, or on recovery from cardiac procedures. Contradictory results shouldn't really be a surprise. If there is a link between musicians and medics, perhaps musicians should be able to heal themselves. One of the biggest hurdles to studying the effects of music on the heart is music itself. It isn't a single, repeatable "therapy" like a statin or stress-reducing breathing exercises. Soothing music, like Debussy's "Clair de Lune" or George Winston's "Moon," have different effects on the heart and body than something more rousing, like "Seventy-Six Trombones" from *The Music Man*, Puccini's "Nessun Dorma," or almost anything from the Red Hot Chili Peppers. Music is also highly personal—what you find soothing might sound to someone else like fingernails on a blackboard. One thrust of current research in music therapy is to see if specific sounds or tempos affect the heart regardless of the listener's musical preferences. Finding a relaxing melody that slows the heart rate, reduces blood pressure, and improves blood flow for opera buffs and rock-and-roll fans alike would make it easier to offer music therapy. If there is a link between musicians and medics, perhaps musicians should be able to heal themselves. Many could use the help.

Lastly, biological explanations and clinical observations may not do full justice to the effect music has on man and his world. Fortunately, poets and philosophers can fill in the gaps. Doctors tell us that social isolation is a cardiac risk factor, and Robert Browning wrote that "He who hears music feels his solitude peopled all at once." Psychologists tell us that expressing emotions is healthful, and Tolstoy explained that "Music is the shorthand of emotion." Clinicians teach that human warmth can blunt many woes, and Shakespeare proclaimed, "If music be the food of love, play on." And in the days when Apollo reigned, Plato explained that "Music is a moral law. It gives soul to the universe, wings to the imagination, and charm and gaiety to life and everything else."

After two months of lockdown, all I gained was my protruding belly, which looked quite ugly and disfiguring. I spent all my days doing nothing which became my new normal. My life was fully welcomed by the arms of sedentary living; all that was left was to develop a bed ulcer. I had to do something, something to protect my butts, pull up my socks and get heading towards doing something from nothing.

Never had I felt so distressed that I so wanted my college days to run back. I had my boards coming, so I never needed to attend the online classes either. I didn't have the privilege to know what zoom or google meet is when the world was running in it.



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HOBBIES

DURING

THE

LOCK-

DOWN

This havoc had done me good. I so felt that my brain had atrophied and rotten. Lockdown kept on extending, the risk for my butts kept on increasing proportionally. I searched on the net for activities that I could do. Interestingly, non amazed me.

I came across research, an old name but a new idea, something of a new taste.

For a week, I devoted myself, trying to learn what it is. Trust me, I was totally in an enigma; I jumped into the ocean without knowing its depth. New words like paraphrasing, citation, Vancouver style and all, went above my head. Previous mode of living was better, i.e. doing nothing. But thanks to my girlfriend, my guitar; she helped me through this burden. She kept all things in balance, a perfect harmony.

Eventually, after a week of working, I wrote my first article titled 'Stress to the frontline workers during pandemic'.

It was raw and amateur writing, but I felt satisfied. Followed by a couple of more articles, I expanded my team by adding two of my colleagues. I explained everything that I knew. Indeed knowledge is wisdom, the more you share the better you know. We together wrote a couple of articles.

All that was left was an output, some journals to publish our writings. But, we came across an online abstract writing competition. We took part in it; made posters of our article, which was a new experience. It was fully a new experience for us. Our cars didn't take a brake there, it was in full acceleration. We took part in an inter-medical quiz competition and amazingly stood 2nd. We attended many workshops as if it was our mundane. We searched for many online activities that we could do.

For me, I discovered myself in many ways. The line 'I don't know' is the main barrier to 'I do know'. Using poster colour never intrigued me until I started using it. In fact, I took part in two online art competitions, not for winning, but to take part in it. It was obvious with my painting I would never win the competition, but it was fun.

Things went pretty well; I exposed myself to different platforms. With my girlfriend guitar, I joined a music competition, and surprisingly stood second there too. Then my craze grew even more. I did many online live performances and shows. There was not a single day I spent without playing my guitar. I even wrote my original song and performed. The perspective of this lockdown changed; it came to be a boon to me.

I tried everything I could; singing, cycling, even tried cooking. But every time, the burnt charcoal smell and the rusty taste discouraged me from cooking. I exercised daily, yoga plus some workout combo.

And the greatest hobby I created was venturing nature. I got myself isolated in the warm lap of nature. I explored new places, where the population density was merely less than five. Climbed to the summit of hills; saw the majestic panoramic view of the horizon, where the sunsets gave a dark orange hue in contrast, which felt like heaven. I have seen the delta where rivers meet, been to waterfalls of remote places, seen the morning sun rise from the most serene places; indeed, nature is perfect, a paradise.

It's all about perspective; a glass half-filled with water is also half a glass filled with air. If we take this period as an opportunity, trust me, there are endless things you can explore.



CREA

TIVE

CORNER

The Mighty sea

*I am the mighty sea the flows
None can stop my waves nor blows,
Wreaking havoc the pirate gloats,
The devil's knell echoes and echoes
I am the mighty sea that flows*

Photograph by : Anveshak

Hassan Institute of Medical Sciences, Hassan
AMSA India





Well being during a Pandemic

This photo marks the importance of staying strong even in this hard pandemic showing the essentiality of safeguarding oneself with the needed basic measures as to wear masks, face shields and social distancing. It is an indication of giving confidence to the public that we still accomplish our tasks and stay active in our goals to be where we are supposed to be at the same time following all the mandatory health terms..

Photograph by : Jibin Chacko

Astra – Gullas College Of Medicine,
University Of The Visayas, AMSA Philippines



DRUGGED DIABETES



Written by : Manvi Lamba

Maulana Azad Medical College, New Delhi
AMSA India

Hello, I am Zanye, 30 years old obstetrician-gynaecologist. Being a one who specialises in pregnancy, childbirth and bringing new lives to the planet, I am considered equivalent to God. But, amidst this pandemic, I lost my job like the rest and was made to sit at home for 12 months. And, did I mention I've had a high sugar blood level since I was 14? Barring, the influence of stress hormones or just excessive stimulation of lateral hypothalamus, I began bingeing. After all, sitting ideal is not a thing for those who share the same expertise as I do. I was mesmerised by the sight of delicacies I longed to try. The repercussions of my cravings were obviously not welcoming. I held my high carbohydrate diet and sedentary lifestyle responsible for the increment in my insulin shots from 1 to 3 daily. But I wasn't able to resist the temptation too. The savoury spice of pizza, sugar-coated laddoos and the tangy samosas, all made me coerce to put the first bite in my mouth. And the instant my taste buds touch those perfectly blended spices, they ignite and make me lose all my consciousness. But after gaining control over me, I used to find myself alone with guilt running in my mosquito friendly blood.

I was somehow getting used to the vomiting, stomach ache, fatigue, dizziness and fruity breathe which usually accompanied my consciousness after a bingeing episode, until I received a new job offer from a really prestigious hospital! It was a lifetime opportunity I can't let

go off! So I applied for it and pardon, I gobbled a few chocolates only to enjoy the triumph.

On the day of the interview, I was welcomed idiosyncratically by the interrogators. Everybody was staring at me as if I am completely inappropriate to be an OB/GYN. I was feeling shamed, embarrassed, and at times stigmatised. I wanted to know my malfeasance, that is making me feel really terrible about myself. "Am I so fat?" "Do I look obese?" such thoughts kept haunting me like a lemur. Instead of asking me my credentials, background or idiomatic data, they kept asking questions about substance abuse and medical ethics related to it. I was aghast by those queries. All my attempts to put my words rationally were being overshadowed by their suspicious cross questioning. But suddenly I noticed one of them glancing at my arm frequently.

I was compelled to administer insulin on my arm because of excruciating bruises on my abdomen and thighs. That's the price I had to pay for not keeping my tongue buds under control. I fathomed immediately. "I don't do drugs. I have diabetes." worked like icing on the cake!

The future I ought to be

I remember the first thing that people would always ask you when they found out you were a medical student was: "What specialisation are you going to take?" Then proceed to suggest the kind of doctors they think would have a more lucrative career.

Often times you would tell them that you are interested in community medicine, like Dr. Juan Flavier. He was deemed as the "country doctor" and dedicated his medical career immersed in the community. In our country, this career path is not seen as prestigious or competitive. So being a community doctor, especially in far-flung areas, is not chosen by many.

I would like to paint you a picture of what your future might be ten years from now. The world I am living in has recovered from the crises we have suffered--the COVID-19 pandemic, the fight against injustices, and economic collapse. Our country has started to reap what we had sowed for years because of advocates for the 17 sustainable development goals. The most important for me as a doctor, is being an advocate for good health and well-being.

We finally have healthcare for all where the poor and the marginalised have access to basic healthcare services. Do you remember when you joined a medical mission in Bilibid for prison inmates? They only relied on these services to have access to the healthcare that they needed. It was one of the turning points for you to realise the health inequities in the Philippines. You took the patient history of one of the inmates, and physical examination revealed that his blood

pressure was through the roof. However, he did not take medications because he did not believe it would do anything for him. And it was so frustrating that you only had one day because you thought you could have done more with health education.

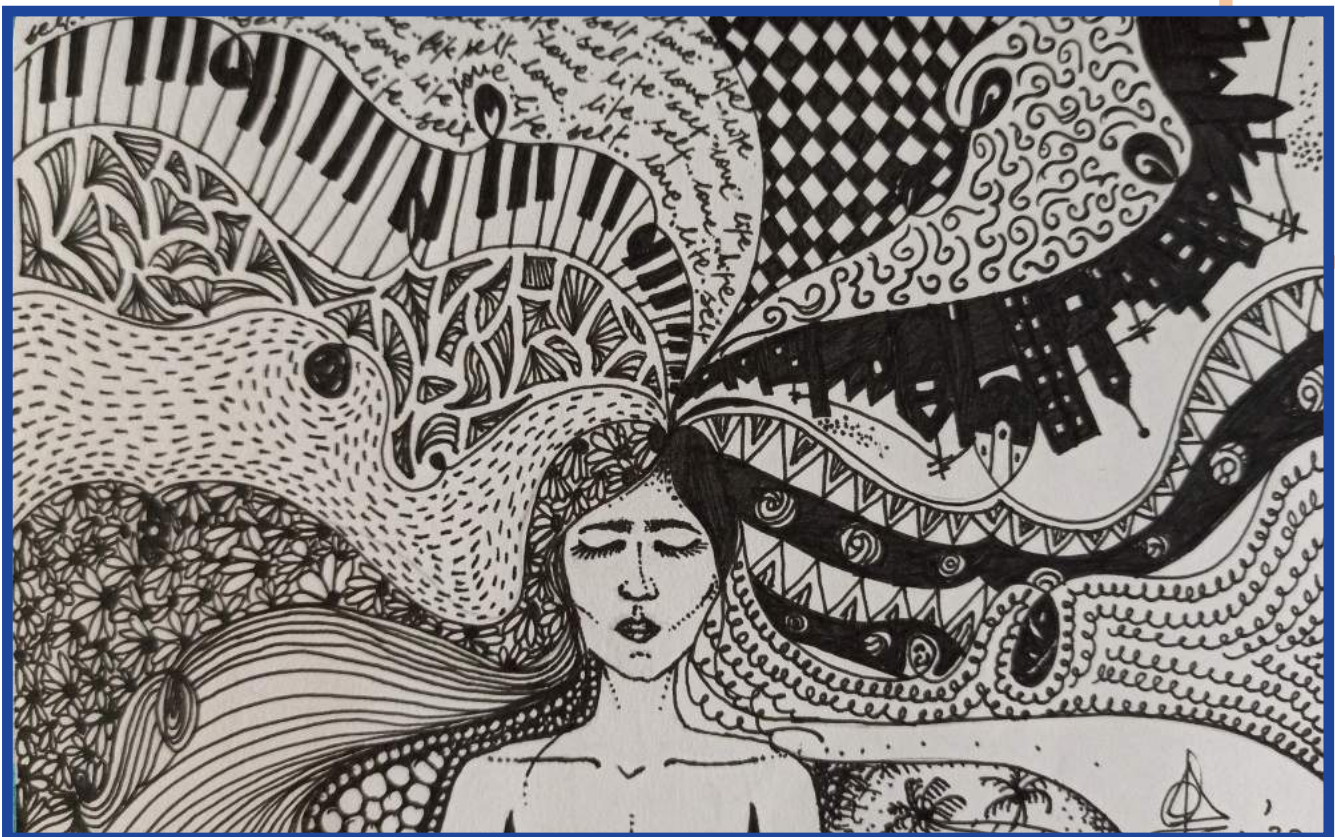
After so many years of fighting the stigma against HIV/AIDS, people in communities that had reservations have finally listened to us on the importance of sex education. It is proven to be imperative in preventing HIV/AIDS, and it started in your community-based research in medical school: on the assessment of the knowledge, attitudes, and behaviours of the community on the prevention of HIV/AIDS. I believed that your research would make an impact someday, and it did.

The key to achieving the sustainable goal of good health and well-being is by reaching out to communities. They needed someone who can be their voice and understand the social and cultural aspects when dealing with their health. When I worked with them and identified the social determinants of health in the communities, that is when I saw the vast impact. Health truly became a right for all.

This is the future that you could live in, depending on your choices. The ideal world that I live in is attainable however, you need to see the bitter realities so your eyes will be open. I understand that at present everything is in chaos right now, but I would like to give you a piece of advice: keep fighting the good fight. As a future doctor, you will also be a community leader that serves the public and

is not governed by selfish ambitions. As you go along--your priorities might change, there would be barriers in doing your job, and your passion may dwindle, but never forget why you did this in the first place: to serve a better purpose, and to change the healthcare system that has long been neglected and broken.

Written by : Michelle Nhat Ly T. Reyes
FEU-NRMF
AMSA Philippines



Exhale...

Amidst all the catastrophes, my mind took a step back, separated itself from all matter, and saw aloof- the little things I missed in my daily life- before it all turned upside down. I epiphanised, that at the end of it all, it was those little things that mattered; and in midst of this chaos, I found my peace.

Art by : Anchita Sethia
Geetanjali University, Udaipur
AMSA India



ZEAL to HEAL

*Stepping into a new world, with zeal,
With thirst for knowledge, on a quest to heal,
But knowledge wouldn't suffice on its own,
To heal is to delve deep into the mind and soul,
To uncover those thoughts, those feelings unknown,
Look beyond that icteric sclera,
Those eyes have emotions plethora,
Each scar has its own story,
Of pain, trauma or glory,
You can stitch and close the wound,
But the hurt, the sorrow continues to swoon,
Listen beyond the beats, what the heart has to say,
A kind word from you can make that sick child's day,
A diagnosis, a cure, advise and medicines is what they want,
But they also seek comfort and warmth,
To be able to pacify the turmoil in the mind,
That's what makes you one of a kind,
So, ensure that they don a big smile when they go back,
Learn to bridge that gap,
Take that extra step, ask how they feel,
Don't just learn to cure, learn to heal*



Written by : Prisha Mehta
JSS Medical College
AMSA India



A peaceful mind and a well-maintained body are the key to manage our wellbeing during this difficult time.

Art by : Kasilda Pasha Devana
Faculty of Medicine, Hang Tuah University
AMSA Indonesia



The Whites' Bistro!

(No, not that one!)

That spark. That “Eureka” bathroom moment. That changed the world attitude. That’s where it all began! That’s where Lyra realised the potential of a largely unused resource - Grannies and Gramps, aka, The Whites.

And since it’s a story and everybody gets to hold onto their dreams as well as watch them come true, the idea bloomed it a full-fledged Bistro very soon! Apart from this little intervention by a Millennial, everything else was run by Greys and Whites, and lord were they Happy!

You would think walking into “The Whites’ Bistro” would be all TARDIS-styled time travel into lemonade, perfume, chamomile teas, bronze statues, dial-phones, lack of Wi-Fi (or in fact, mobile network), sun beaming through 4-foot windows, all painted white, a long counter on one side and 6 plastic seats on the other.

Let me tell you something readers, interior designing was led by them too, and so you’re definitely gonna get exactly what you thought!

That morning. That blessed morning. That’s the day the adventure began! The first customer was here, and lord were they Happy! A lanky figure, ruffled hair, bag on one shoulder, the curse of being a human on another, round glasses, straight mouth, dangling arms and sticks-for-legs came walking in, “hardly keeping his bag of bones together,” as Gran Lucy puts it.

“Well hello dear! You look like someone who could use a breakfast, maybe at least 4 at once too! Hee hee hee.” Classic Granny Joke. Of course, you saw it coming. The Bones (as the entire staff remembers him now) was quite amused and sat down, knowing well it was just breakfast, but the pit in his stomach asserted something more awaited.

“So what would it be, dear? And if you’re undecided, I suggest at least 6-8 pancakes and a bottle of maple syrup!”

“Ms Lucy, Ma’am, I think I’d like 1 bowl of fried rice and a cup of lemon soda.”

“That won’t do you or your barely visible skin any good, but if you like!” Gran Lucy walked away more disappointed than an Indian father whose son didn’t become an engineer. The Bones looked around, clicking photos, taking in the weirdly soothing air and laughing at Gran Neena throwing her slipper at the neighbouring restaurant-owner who called her ‘Granny’. (Honestly, he shouldn’t have. He’s 55. But, that’s men!)

Time moved at a different pace there. It didn’t seem much. Was it slow? Or just full?

wAnyways! The Bones was still glimpsing around when from the corner of his eye saw he a little green figure waddling forth with Gran Lucy on its side. She had a small bowl in one hand, and the creature’s palm in another. Now he could see clearly what it was. He pinched himself. He rubbed his eyes. He made binoculars out of his hands. But his vision hadn’t betrayed him that first time!

He wasn't seeing things, because they were there.

Gran Lucy thrust down the bowl and said, "Oh dear Boy, your order had me in tussle! This new generation and their needs! What is wrong with you boy? How is this going to help put skin on those bag of bones?! If it's money issues, I have my grandkids' stash to spare, it'll buy you a few dinners at least! Anyhoo, suit yourself. Here's your order- Fried Ice and a Lemon Yoda. And let me tell you, getting Neena's grandkid to dress like that- all green and a yellow hat- not easy! You better empty your lanky pockets, boy."

Fried Ice and a Lemon Yoda. Fried Ice and a Lemon Yoda? Fried Ice and a Lemon Yoda! How did they even get fried Ice?! What is fried ice?! Come on Bones, how did the fried Ice taste?!

He just smiles, just as he did that day. Move over yourself narrator, what next on that day?! Well, he ate/drank/gulped/sipped the fried Ice (According to whatever delicacy it was), played with the lemon Yoda, clicked a few more photos, tipped graciously, hugged Gran Lucy, grinned wide, laptop bag was back on his shoulder, but the other one felt a little less heavy than when he had first walked in, promised a "The Bones Returns," and waddled off.

*Pinggg: "Would you like to rate this place?"

"Uh, yeah, definitely! 5 stars!"

*Keypad ticks: "Awesome experience! Perfect ambience! You must try this out!"

The first customer walked away happily. Oh! Almost forgot! He called his Granny and

Gramps, and it's a date with them at his new favourite Bistro!

"Aww! So cute! Tell us more, narrator! I can't wait! What's next?!"

Yeah, okay, I hear you - the imaginary readers' voices in my head! There's so much more to tell you. But all in good time! And you must have realised, time here moves different, it's historic, right? So, we should meet sooner than expected!

Till later!

Written by : Aastha Johri
AMSA India



Pandemic Piñata

Routines and surprises-
That's how we cope,
Tragedy, and then a blessing-
That's what we hope.

Where do the excuses fit-in?
Amidst the lazy synapses,
indeed.

Battling for dreams,
While detouring the dead-
end,
And muting the screams,
Dreading contempt.

How does this work?
With a break in disguise.

With fading bonds of love,
And cravings for solidarity,
Lost are the songs on turtle-dove.
Living with disparity-
Who teaches them?
Time does.

Seeking changes demands,
But endows peace,
For the motivated ones,
Know the worth.

How do we do it?
By breaking the pandemic
piñata.

Written by : Harshitha R
Government Mohan Kumaramangalam Medical
College, Salem, AMSA India



The Promised Dawn

*It may be pitch dark outside,
yet, a light faintly flickers inside.
Life is a rejuvenating learning experience,
Illuminated radiantly by elders' insights.*

*And although it has been a long day,
We must keep striving and keep indolence at bay.
For generations later would look upon,
we must work to give them the promised dawn.*

*Let the embers set alight this day,
guide you along your destined way.
Today will go down in history as a day remembered,
In this strife, join me, my dear brethren and fellow members.*

*Eventually no matter what the final outcome,
let our lives serve as a source for inspiration wholesome.
For generations later would look upon,
And we must work to give them the promised dawn.*

*Though sleep may readily beckon me so,
I must still complete my task though.
And we shall soon meet again,
under moonbeams amidst showers of rain.*

*In luscious green fields with abundant grain,
where boons abound and man knows no bane,
where birds chirp and the lion brushes his mane.
Through our efforts, peace shall reign.*

*For generations later would look upon,
And we must work to give them the promised dawn.
We must work to give them the promised dawn.*

Written by : Vishnu Unnithan
Seth GS Medical College, Mumbai
AMSA India





We're in this TOGETHER!

COVID-19 has been sending many countries into lockdown, causing citizens to self-quarantine, which in the long run may cause stress. Everyone reacts differently to isolation. While some handle it fairly well, others might sink into depression. We have to remind them that they are never alone.

Art by : Precia Widyatomo

Faculty of Medicine & Health Sciences Atma Jaya
Catholic University, AMSA Indonesia



Not Just Another Doctor

The breathing dropped; the heartbeat stopped... and there he stood by, besides his dying father... unaware and shy, baffled by the panic he felt that flooded the room, the little boy, nonchalant, a man to be soon.

*"hey buddy," I called to cheer him up
"so what do you want to be when you grow up?"
"a doctor like them, but better"
his lips smiled, as he said, but he dropped a tear carrying all the sorrow his eyes read.*

*a doctor he said, just like me, just like you
but what he asked next is what moved few.*

*"what kind of a doctor should I be?"
"Should I be a surgeon, who's always behind that mask? or should I treat fractures, that seems too much a task. Maybe I could be a dermatologist, and beautify; I think I'd go into pediatrics, I can't see babies cry."*

*and then I heard a voice, pleased and polite
"i'd like to answer that, my boy, if I might?"*

*the kind you should be is the kind you haven't seen. what line you choose, hardly matters.
what kind really does, I'll tell thee.
be, if you must, the kind who's courageous he who won't be afraid when the decision's to operate.
he knows he'd never play god, but neither is cared to scar his track record.*

*be, if you must, the kind who's confident
trust your wit, times will be tough, and never regret, coz' experience will never be enough.
Be, if you must, the kind who's honest the compromised health of a patient, it's not a guilt you'd want to live with.
Be, if you must, a patient listener, he, who'd always have more to know than ever to teach.
Be, if u must, the kind who's polite he, who'd not choose what's easier, but what right.
Be, if you must, the kind who's passionate, he who gives it all, and leaves nothing to fate.
Be, if you must, the kind who's compassionate. the kind who serves society and not caters to clients.*

A lot with white coats graduate each year and acquire fame, but be if you must, the kind that can justify the 'Doctor' before their name.

Written by : Avi Singh
Government Medical College, Amritsar
AMSA India



THE DEVIL & HER

*Bewitched lay I, by the virtues of her
Soul, body appeased by thrilling veneer
Dreams of avarice, sways away, her sneer
Cuts through the heart in cruel reverse*

*What is it, O' priest that clenches my gut
Is it the isolation or creeping dangers of cult
Trapped in the four walls of ludicrous enmity
Or so I feel, time prides in cruel brevity
Scantily clad, I trod the empty streets,
In hope to see the silhouettes pretty
Whisked by masked men, I slide and scurry
Back to my doom, through tread bounty
I wish these stairs never stopped to rise
And reach never the hell I breed, I apprise
Inside a place I called my sweet home
Now turned into a lifeless, hellish dome*

*I no longer hear the clomps and clicks
Of children playing with silly ass pricks
Masked men deemed me filthy, untouchable
As I lie motionless, dying in a lonely stable
Every surface, cloth or place I trail,
Cries calls of danger and decay*

*Where are your virtues o' virtuous man Or is it just a smokescreen
of pious parley I gasp for breath, breathless and taut
Yet, not even a single soul, in the bright day morn
Oh, how I wished I refrained from meeting The love of my life in
loneliness slithering*

*Had I known, A tiny devil clothed in capsid leather
Lurking around corners and in air to devour
Instilled in me by the meeting with my lover
Would cause me demolish and hell forever
The love of my life, she cruelly tethers
My heart onto a place of endless encounters With the soul of my
lovely, sweet dead mother*

*I will sing of her till grave in sweet reprise
Lying insignificant and still, wrought with cries.*

Written by : Achsah Raj C
Christian Medical College, Ludhiana
AMSA India



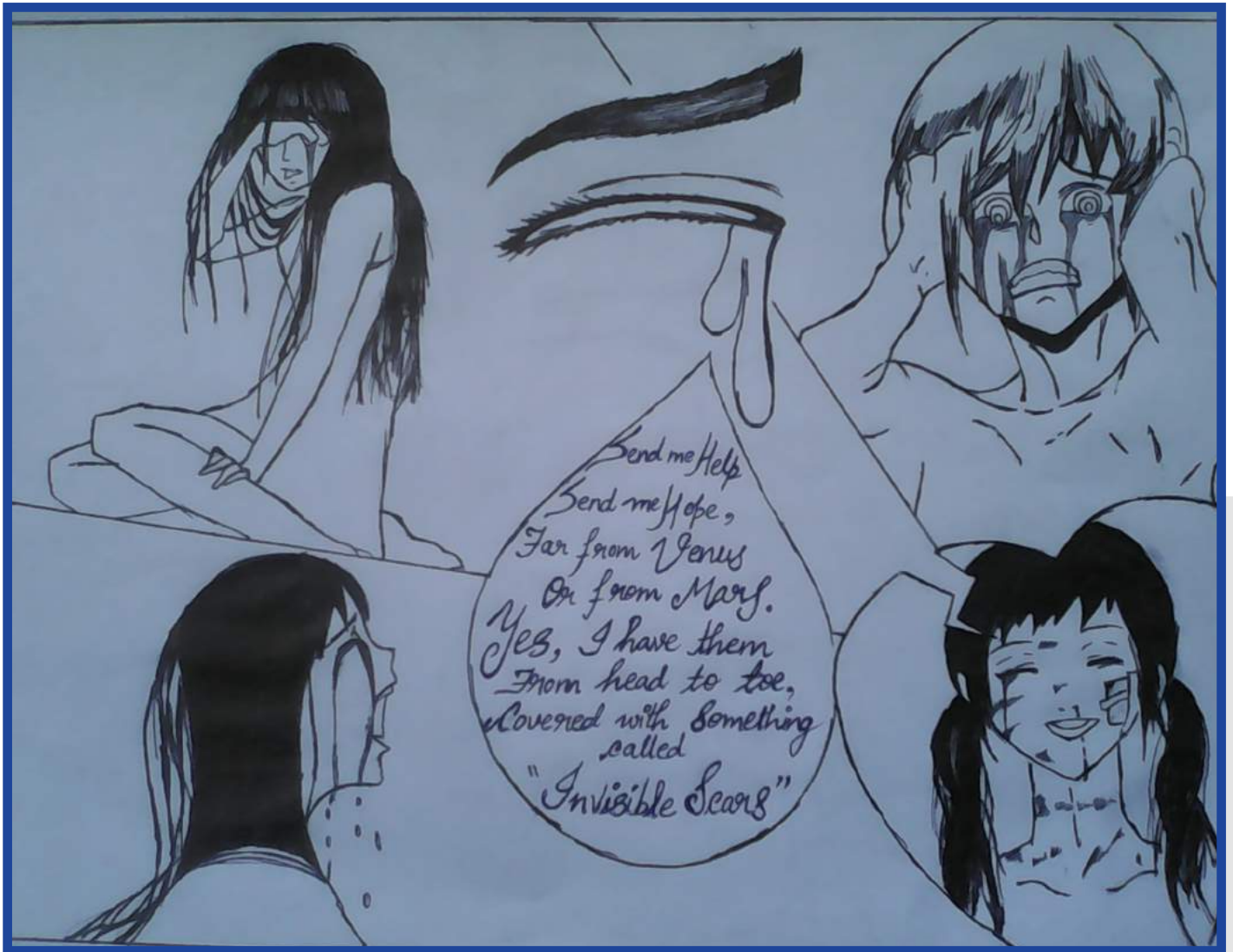


DISTORTED

As many people spend their days during this pandemic at home within the comfort of their families, a significant fraction of people are trapped behind the doors with an abuser. With everyday life slowly turning more and more digital, victims are unable to escape from their misery. The Shadow Pandemic is growing amidst the COVID-19 crisis and we need a global collective effort to stop it. Educate yourselves about domestic violence and helpline services and make sure to check on those around you, the increasing reports of abuse aren't just mere numbers... They can be people whom you know.

Art by : Erin Liz Jon
Government Medical College, Kozhikode
AMSA India





"Life is a fight". Therefore, everyone is fighting. The saddest part is that we tend to judge people with what is visible to us in plain sight rather than understanding them and reaching out a helping hand. So, let's try to read between the lines and realise that "Everything okay, is not always okay".

Art by : Swagata Saha

Banas Medical College & Research Institute,
Palanpur, AMSA India



LESSONS OF QUARANTINE

*The quarantine that breaks us apart,
The pandemic that cast the planet off the chart,
The lockdown that drove humanity to restart,
The virus that bleeds through each country's heart.*

*The pandemic led to a great number of deaths,
Because of it, thousands drew their last breath,
It relentlessly preyed on humanity's psychological state,
Barring folks in their own homes and devoting them of bread.*

*But with each adversity comes a lesson to be learnt,
A guideline for the long run in mind shall be burnt,
In light of this catastrophe, it can not be unloved,
That the warnings we've been given mustn't be adjourned.*

*The first being that this world should be respected,
The hoax of immortality that we've constituted,
If were to continue, from this Earth we'll be demounted,
So let's treat this land with respect while not being slanted.*

*A moral from this that we will all gain,
Is that no life on this Earth is vain,
The bond of humanity one shall not scoff,
Every organism is sacred and shall be care of.*

*Another truth that has returned to light,
Is that we're not alone during this fight,
Our friends and possessions will aid us in their own way,
But once the reaper comes nobody is able to sway.*

*So, the final issue that I wish to say,
Is that love each moment of every day,
Adore your cherished ones in each approach,
For our time here is temporary and we shalt not stray.*

Written by : Sameer Moore

Krishna Institute of Medical Sciences
AMSA India





*The siren wails on the road,
The breaking news bulletins on TV,
The cases count on the screen,
The fear of even stepping out of your
house...*

*Numbers or Alphabet or Lights,
Nothing could scare this brave little
girl before,
But how could I even anticipate, a
nanoparticle to have caused such
havoc.*

*Where doctors are getting sicker,
While the Virus is getting stronger,
When immunity is getting weaker,
and the chances of survival are get-
ting slimmer.*

*The time is nigh,
For us to step on the stage so high,
Prepare to mount, for the coming
times aren't in the count.*

*The thought of life after the lock-
down,
Sends chills down my spine,
Scared as I am to go back to my rou-
tine,
I'm petrified more as I think of walk-
ing past corridors Of the COVID ward.*

*I cannot imagine being able to treat
patients,
As I did earlier...all cheerful and unbi-
ased, When now all I can think about
is, does he have COVID?
Has he gotten himself tested be-
fore??...*

What if he is a carrier?

*My services as a doctor,
Have become inefficient,
As it is...
My life in itself,
Has become uncertain, as would be...*

THE COVID D R E A D

*With all this,
No life to go back to,
No job satisfaction to rely on,
Every day is becoming, more and more tire-
some...*

*Tired as I am,
I began to wonder,
When me, someone they call "GOD"
Is so scared to go back,
Into the halls of my abode,
How can I expect them?
To walk in here without, the fear of becom-
ing sick, at a place where they are supposed
to be safe.*

*Tens of departments,
From General Medicine to Neurosurgery,
Nothing could save those,
Thousands of people who have died,
And those numbers still lingering,
In our minds,
It never will be easy to trust,
Those who are supposed,
To bestow us with a second Life.*

*I'm not saying,
We do have reasons to be scared,
But we need to stop this calamity,
From turning to worse,
It's never late for a change.*

*Amidst all this chaos, I see people,
Who roam the streets?
Free of thoughts, Free of fear of conse-
quences.
Those who are worried,
Don't cease to do so, while those who are
carefree, Never stop a beat to worry....*

Written by : Moneesha Jothibabu
ESIC Medical College & PGIMSR
AMSA India



*The real man has seen challenges,
That are to be looked upon,
In all forms of life existing,
As to health especially in its uniqueness.*

*All the more harder is to look for the change,
In the people who already understood the cause,
And still makes no move to turn over,
With no new positive plans for a better future.*

*Nevertheless, this fight cannot be left out,
As it's the journey of a lifetime,
To keep educating the society,
On the dos and don'ts in what we see.*

*The real challenge is to reform,
To bring the real beauty in itself,
By taking the initiative to work on,
And bringing ourselves as an example.*

*The steps would be in collective terms,
As to mental health, global handwashing & food safety,
The society is to be safeguarded on these,
For better outcomes that we shall see.*

*The pandemic is a stage to enact much,
On features as to handwashing techniques,
Handling the need of being clean & hygienic
For a safer health result that we shall see.*

*Taken into account is also the mental health,
That is highly important in life terms for all,
For an overall development of the human mind,
To see him soar higher with positive vibes.*

*In the least wouldn't be the food factor,
As to finding ways to procure & assuring,
That as a commodity wouldn't be wasted,
And used wisely with proper distribution.*

*In all these, we expect the best to come,
Even when it's the hardest to achieve,
But still in patience on this path,
To drive with faith & confidence that we can accomplish.*

Written by : Jibin Chacko

Astra – Gullas College Of Medicine,
University Of The Visayas, AMSA Philippines





“Prevention is better than a cure” - Desiderius Erasmus

During the pandemic Covid-19, everyone has a feeling of fear about their own safety. This pandemic requires each individual to wear masks, face shields and any other medical equipment to prevent getting the virus. For example, in public restaurants, the health protocol is required to be obeyed not only by the visitors but also the waiters as well.

Art by : Prahastya Putra
Universitas Kristen Indonesia
AMSA Indonesia



I'LL SOAR

A Fight Against Self-Doubt

YOUR SELF DOUBT OR MENTAL HEALTH DOESN'T DEFINE WHO YOU ARE
OR WHAT YOU CAN ACHIEVE. YOU ARE MUCH MORE THAN THAT.

*With every fall, I know I'll soar.
With every breath I take, I remind myself
I'll soar.
The fall, the heartbreak, the pain, the loss;
Only exist
To remind me,
Of the great power within.
So, come what may,
The fall, the heartbreak, the pain, the loss;
I'll show who I am.
I won't give up,
I won't break.
And even if I do,
I'll pull out all my broken shattered pieces together,
Glue them with Gold
And just like the kintsugi*
I'll shine
I'll soar.*

***Kintsugi = Japanese art of repairing broken pottery with powdered go.**

Written by : Ria Raju
Christian Medical College, Ludhiana
AMSA India





This photography is between the first lockdown days, this photography shows how miserable life is of a farmer. He had all the stuff to sell but no costumes...

Photograph by : Sameer Moore
Krishna Institute of Medical Sciences
AMSA India





Life before pandemic.

Most of us have already forgotten how life was before the Covid-19 pandemic. We spent most of this year being isolated in our own homes. This is a reminder from the past, of what could be, if you do your part in this pandemic, by staying at home and listening to the healthcare workers' advices.

Photograph by : Liovicinie Andarini
Faculty of Medicine, Universitas Indonesia
AMSA Indonesia





Life too hard until the end.

Many people said we live in an independent land, but the reality said no.

Photograph by : Azam Fatoni

Faculty of Medicine, University of Muhammadiyah
Malang, AMSA Indonesia





How Mom's Work

She leaves her home to lift a load, to bear the sorrow, to take all the responsibilities and the risks, and to always imagine living a better life.

Photograph by : Azam Fatoni

Faculty of Medicine, University of Muhammadiyah
Malang, AMSA Indonesia





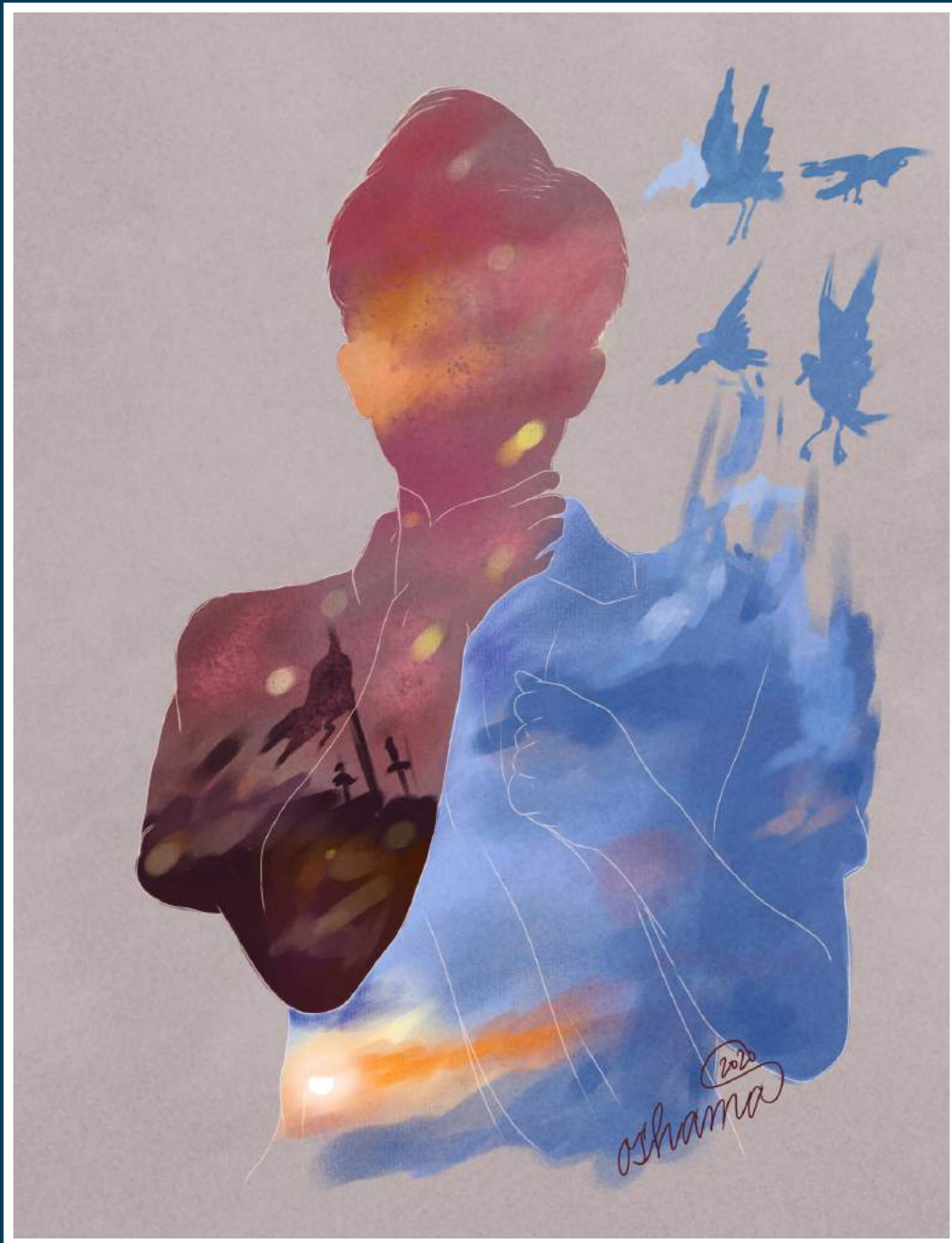
Keep Walking

Seeking a truth of life through a no-end pathway.
Waiting and begging an insane clarity.

Photograph by : Azam Fatoni

Faculty of Medicine, University of Muhammadiyah
Malang, AMSA Indonesia



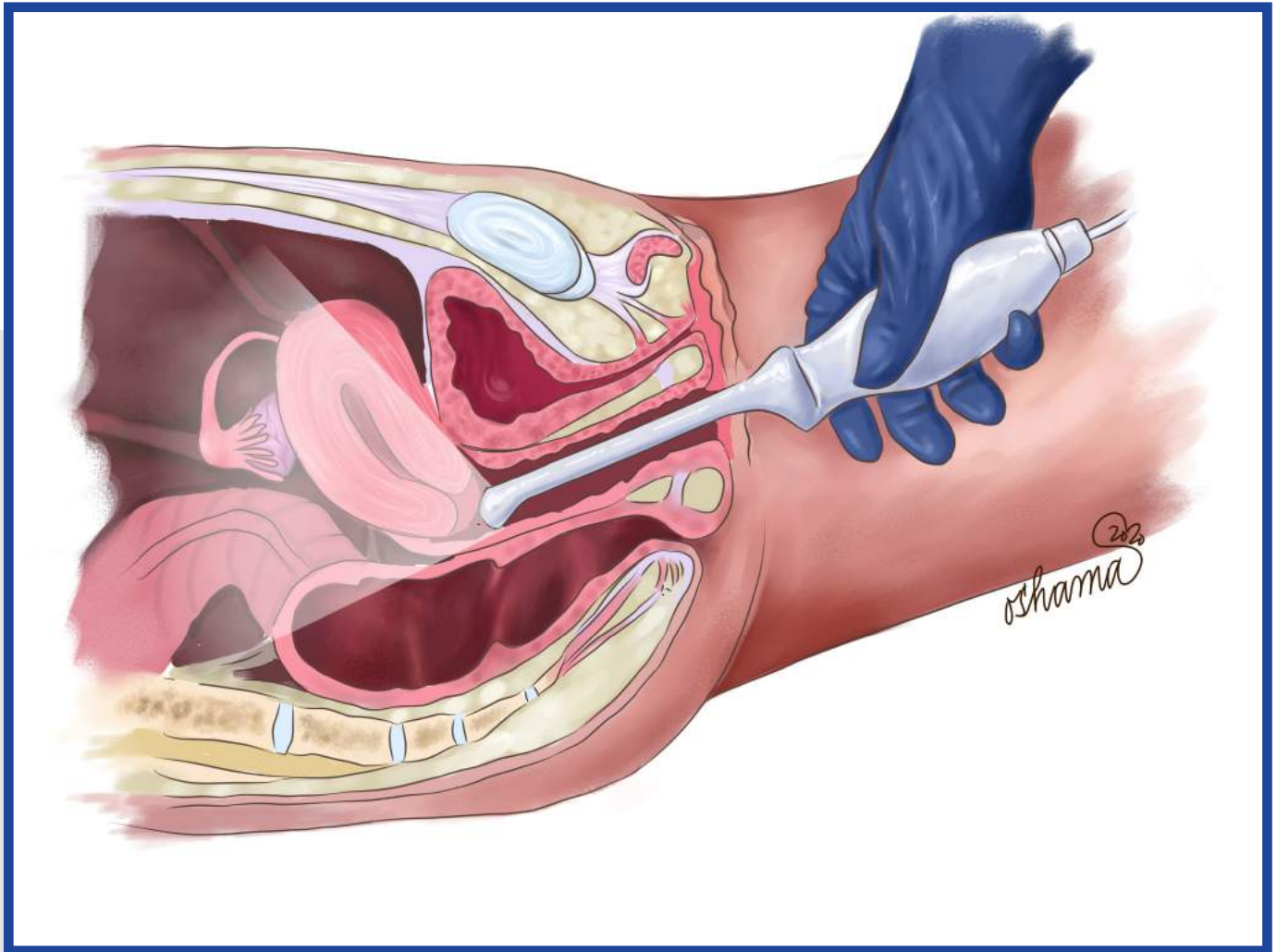


The war going on your mind when society told you to follow your own heart and keep your own value. In fact, they judge you by the standard of morality, ethics, and beauty that was measured by their own subjective perspective. Unconsciously, you start losing your own self.

Art by : Oshama R. Hatta

Faculty of Medicine & Health Sciences,
University of Jambi, AMSA Indonesia





An illustration showing the procedure of transvaginal USC (Ultrasonography).

Art by : Oshama R. Hatta
Faculty of Medicine & Health Sciences,
University of Jambi, AMSA Indonesia





LETTERS FROM
FAR FAR AWAY



For:

Adilla Dyah Putri Amutya

Indonesia

Atma Jaya Indonesian Catholic University

adilladyahputri@gmail.com

Adilla!!

How are you? I know online classes can be so tiring, but make sure to take a break once in a while!

Hoping to see you soon :)

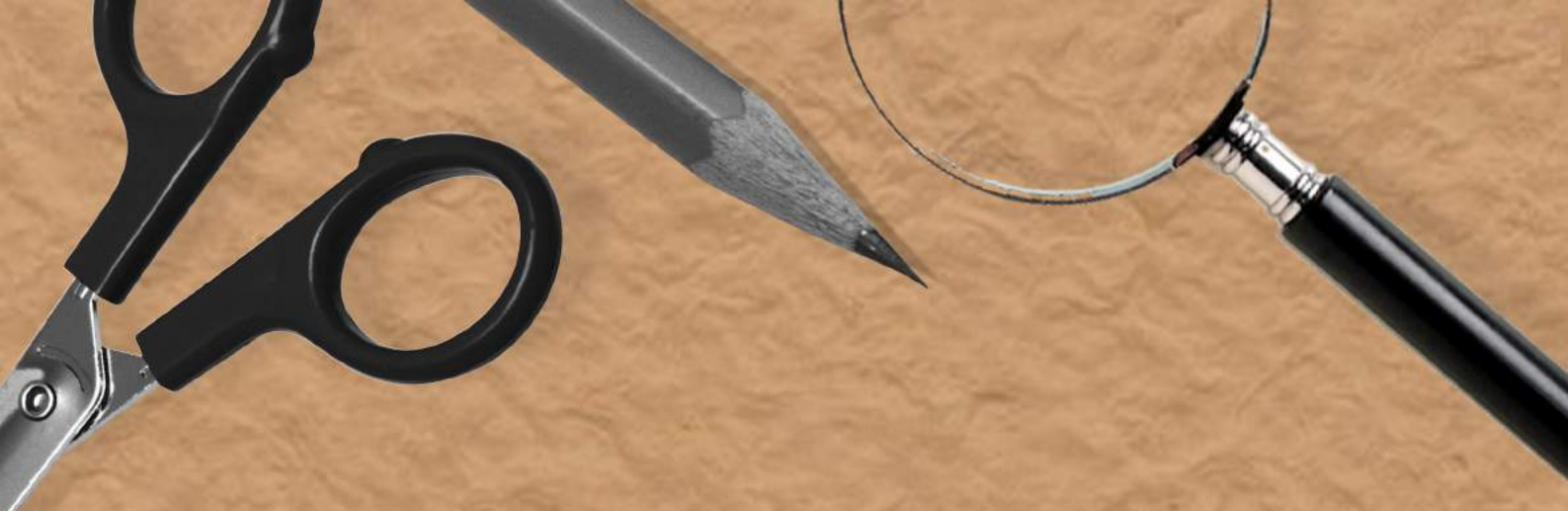
From:

Amelyn Alexie Gan

Philippines

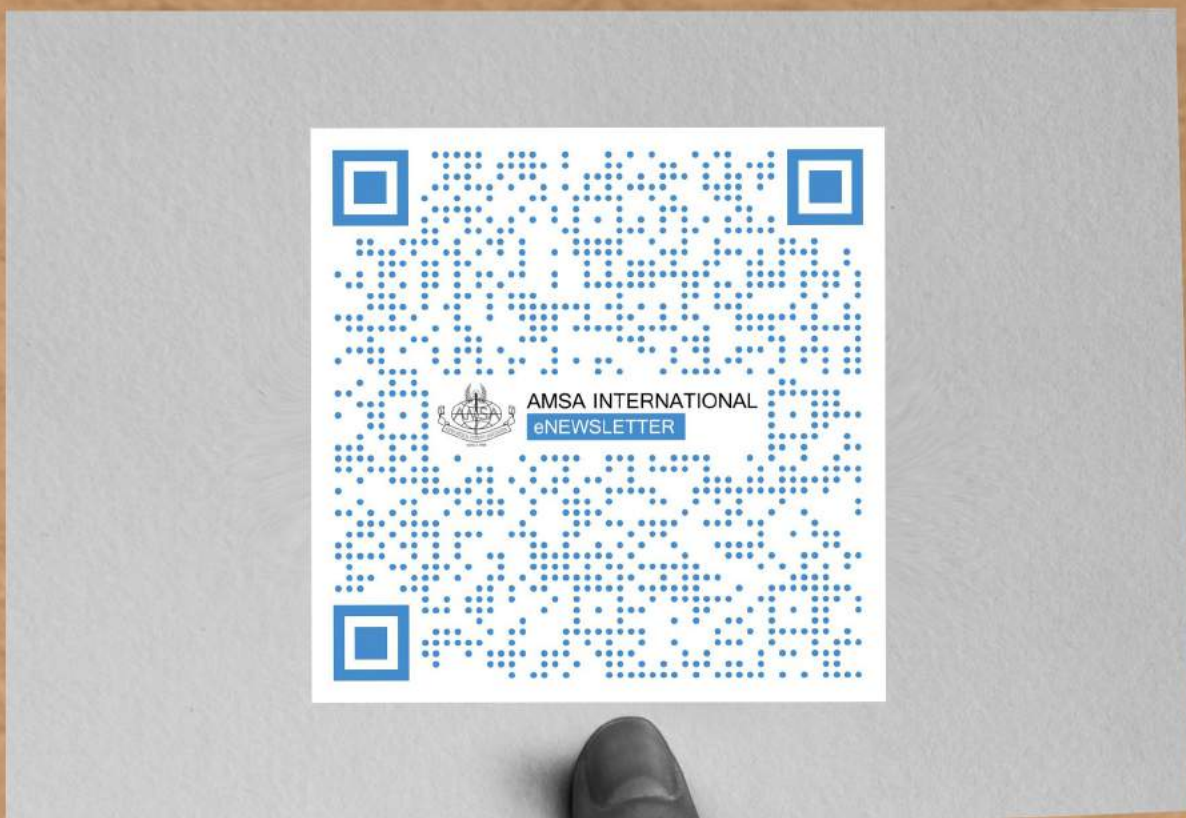
Ateneo School of Medicine and Public Health

amelyngan@gmail.com



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THE AMSA VISION

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ASIAN MEDICAL STUDENTS' ASSOCIATION
SINCE 1985

Available for phone, PC,
and iPad!

A close-up photograph of a doctor's hands wearing blue nitrile gloves, holding a black smartphone. The doctor is wearing a white lab coat, and a stethoscope is visible on the left side of the frame. The background is a soft, out-of-focus light blue. The text is overlaid on the image in white, bold, sans-serif font.

CLINICAL
CHALLENGE:

Wellbeing during the
PANDEMIC

Do you know what it takes to keep your
mind, body, and environment healthy
during the pandemic?



Take this challenge and **scan the QR
Code** to answer the questions!

The three fastest and most correct answers will
be the winners and will receive rewards.

Are you able to reach the top?

CLUES

1. A study of the structure and parts of an organism
2. A disorder that involves repetitive movements our sounds that can't be easily controlled
3. Treatment
4. BMI above 30
5. Kidney
6. Doctors' most prized device
7. Extremely essential nowadays
8. Source of information

INSTRUCTIONS

1. Answer all the clues and find out the hidden word in the blue box!
2. Scan this QR Code to get an Instastory template!
3. Write down the hidden word in the Instastory template, tag our official Instagram @amsa_intl and add it to your Instastory!
4. The first three winners will receive rewards.





FEEDBACK

Your opinion is important to us!
Scan the QR code below to share
your feedback about this issue.





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