CLINICAL UPDATES IN COVID-19

Postmortem Findings In COVID-19 Patients And Mental Health Issues In The Era Of COVID-19

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Postmortem Findings In COVID-19 Patients & Mental Health Issues In The Era Of COVID-19

Clinical Updates in COVID-19

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POSTMORTEM FINDINGS IN COVID-19 PATIENTS & MENTAL HEALTH ISSUES IN THE ERA OF COVID-19

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Postmortem Findings In COVID-19 Patients And Mental Health Issues In The Era Of COVID-19.

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Disclaimer

- This transcript was prepared based on the Clinical Updates in COVID-19 live webinar session on 28/05/2020. The panellists for this webinar are Dr.Ahmad Hafizam bin Hasmi, Esther Teo Siam Cheng, Dr. Ahmad Rostam bin Md Zin and Dr. Ravivarma Rao Panirselvam.

- The webinar is available in YouTube channel via https://www.youtube.com/clinicalupdatesincovid19

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- This is intended to share within healthcare professionals, not for public.

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Speakers' Brief Bio

“High Risk Autopsy” by Dr Ahmad Hafizam, National Institute Forensic Medicine, HKL

Thank you to Dr. Christopher. I would like to thank the Institute for Clinical Research for inviting me and the National Institute of Forensic Medicine to participate in this webinar today.

Outline

Today, I'm going to share with everybody the high risk autopsy on COVID-19 that we performed in Hospital Kuala Lumpur. The outline of the presentation for today are

1) definition of high risk autopsy

2) requirement for high risk autopsy to be done

3) post-mortem findings in COVID-19

4) Conclusion

Definition of high risk autopsy

So, what is the definition of high risk autopsy?

The definition for high risk autopsy is the post-mortem examination of a decedent who had or is likely to have had, a serious infectious disease that can be transmitted to those present at the autopsy, thereby causing them serious illness and/or premature death. These include hazard group 3 pathogens such as COVID-19.

● Requirement for High Risk Autopsy

So, what is the requirement for a high risk autopsy?

In general, the requirement of high risk autopsy evolved:

1) risk assessment

2) understanding the pathology

3) Universal standard precaution and

4) standard operating procedure for specific hazard group 3.

In Hospital Kuala Lumpur, the requirement to perform high risk autopsy, we have to resolve around:

1) legal authorization of the particular autopsy

2) planning and protocol for that particular autopsy

3)We need to have a fully trained team to conduct the autopsy

4) a proper equipment to conduct the particular autopsy

5) a proper facility to conduct the particular high risk autopsy in terms of biosafety level 3

6) In Hospital Kuala Lumpur, we have an added tool, CT scan facility to guide us to perform autopsy is post-mortem.

1) Legal authorization of the particular autopsy

In Malaysia, the death investigation around/or for post-mortem examination can be done either under the Criminal Procedure Code (Act 593) or under Prevention and Control of infectious Disease Act 1988 (Act 342) for legal criminal purposes. The post-mortem examination being ordered by the Authority i.e. the investigating police officer under criminal procedure code, whereas if the particular issue resolved around public health issue, the post-mortem examination being ordered by health authority under the Prevention and Control of infectious Disease Act 1988.

Section 16 Act 342

Under sections 16 Act 342, for post-mortem examination order, whenever an authorized officer suspects that a person has died of an infectious disease, he may order the corpse to be conveyed to such place as he may appoint for such examination as he may consider necessary.

● Objective of the COVID-19's Autopsy Under Section 16 Act 342

The objectives of COVID-19 autopsy under section 16 Act 342 are:

1) to address public health issues (prevention and control)

2) to better understand the pathology of COVID-19 and

3) to guide clinicians in terms of treatment.

With this particular legal authorization, there is no requirement of consent from the family member to conduct this particular post-mortem. This particular post-mortem fall under legal post-mortem

In HKL, there are 16 positive COVID-19 cases who died in the hospital. And from these particular 16 cases, we performed 4 cases under Prevention and Control of Infectious Disease Act.

● 2) Planning and protocol for that particular autopsy

Before we conduct the particular post-mortem examination, we do a proper planning and devise the protocol for the particular post-mortem examination to be done.

3) Fully trained team to conduct the autopsy

We set up a post-mortem team. This particular post-mortem comprised of four or five team members that include forensic pathologist, forensic registrar and also forensic technician. In this particular team, we assign a person to become a clean person, she or he is going to document the post-mortem examination and handle all the post-mortem specimens inside the post-mortem room.

Support Team

We also assigned a support team to assist in the post-mortem examination. The responsibility of the support team are:

1) To check all the personal protective equipment(PPE) that are going to be used by the post-mortem team,

2) They are the ones who will be handling all the specimens from the post-mortem room,

3)They are the ones who are going to supervise the donning and doffing aspect of the post-mortem team and

4) One of the members of the support team will become the backup member if any eventuality happens in the post-mortem room.

● 4) A proper equipment to conduct the particular autopsy

The post-mortem team will wear a full PPE level 3 together with PAPR.

PAPR stands for Power Air Purifying Respirator. So, in this picture (on the left), we can see the support team member calibrating the PAPR that is going to be used by the post-mortem team.

This particular picture (in the middle and right), showed a post-mortem team member with level 3 PPE together with PAPR.

● 5) Proper facility to conduct the particular high risk autopsy in terms of biosafety level

We have biosafety level 3 post-mortem rooms in Hospital Kuala Lumpur. The post-mortem room is equipped with negative pressure, HEPA filter, pass-through body freezer, high definition CCTV and a pass-through chamber for the specimen. There is a viewing window for observation of the post-mortem examination. The high definition CCTV inside the post-mortem room allows live recording of the post-mortem procedure.

A picture on slide showing a scientific officer handling the aspect of recording of the post-mortem examination.

Specimens Handling

High risk autopsy such as COVID-19 is considered as such, because it is a new emergent disease. There are a lot of specimens to be taken during post-mortem examination. This is to make sure that the particular post-mortem is done optimally to answer all the medical questions. So, the one who is going to handle the specimen, needs to be diligent because she or he is going to handle a lot of biological specimens.

● Craniotomy Box in Post-Mortem Room

Even though we performed the post-mortem inside a biosafety level 3 post-mortem room with negative pressure, there is still a risk to do an aerosolized procedure such as post-mortem craniotomy. In Hospital Kuala Lumpur, we devised a craniotomy box to protect the operator during the post-mortem craniotomy. The craniotomy box is made of a transparent plastic. This method protects the operator from exposed to the dust produced by post-mortem craniotomy procedure.

● Post Mortem Findings

What are the post-mortem findings for COVID-19?

In general, from the other literature, the post-mortem features of COVID-19 as widely reported:

1) diffuse alveolar damage,

2) severe endothelial injury,

3) presence of intracellular virus and

4) widespread thrombotic microangiopathy.

Dr. Eric Topol from the USA had already made a systematic literature review and shared on his Twitter regarding the findings of the post-mortem examination that have been recorded from different countries. Since this disease is a new disease, a proper systematic literature review needs to be done to compare the finding of the post-mortem from all the respective centres.

Experience in Hospital Kuala Lumpur

So what is our experience in Hospital Kuala Lumpur? We performed 4 post-mortem cases in which, 3 are males and one is a female. Their age ranged from 65 years old to 77 years old; the duration of admission between 7 and 17 days. All the cases had one or more co-morbid (DM, IHD, HPT, CKD, CAD, cancer). The COVID-19 classification (disease severity of all 4 cases) at admission ranged between stage 3 and stage 4*. From the post-mortem findings:

i) we can confirm that deceased person had the reported co-morbid disease(s)

ii) spectrum of pneumonia range from mild to severe pneumonia

*The COVID-19 disease classification is based on MOH Malaysia's COVID-19 guideline

Case 1

Case one is a gentleman who had multi-organ failure. He was severely jaundiced indicating that he had liver failure.

Pathological changes of the heart

Gross examination of the heart showed a “dusky” appearance of the epicardium. The cut section of the heart did not show any sign of acute or remote infraction. There were clots inside the chambers of the heart.

Histology of the heart showed infiltration of lymphocytes over the epicardium of the heart. However, there is no myocarditis seen.

Pathological changes of the lung

Examination of the respiratory system showed the presence of fluid inside the trachea and bronchi. The fluid was yellowish in colour and not sticky. The cut section of the lung infection showed dark colour and was consolidated. It had an unhealthy appearance compared to a normal lung. The cut section of lung also showed presence of mucus plugs inside the small airways.

Histology of the lung showed a hyaline membrane formation consistent with diffuse alveolar damage. High power histological examination showed the presence of cytopathology effect of viral pneumonia of the lung tissues. And, in some areas, there were superimposed bacterial infection where we could see a lot of neutrophil infiltration in the lung tissues.

From our post-mortem finding we did not detect any thrombus inside the vessels.

Case 2

Case number two referred to a lady having coronary artery disease.

Pathological changes of the heart

Post-mortem examination showed atherosclerotic changes of coronary arteries. The cross section of the coronary artery showed a total occlusion by the atherosclerotic changes. The cut section of the heart showed dilated chambers with patchy fibrosis.

Histology showed evidence of fibrosis of the myocardium.

Pathological changes of the lungs

Examination of the airway showed patent airway with minimal fluid inside the airways not like the previous case or case number 1. The examination of the lung showed pneumonic changes confined to the lower lobes of the lung whereas the upper lobes showed aerated lung.

Histological examination of the lungs showed infiltration of neutrophils into the interstitial and alveolar spaces, but for this particular case, no obvious cytopathic effect detected from the tissues.

The kidneys for this case showed that this lady was having chronic kidney disease as stated in her co-morbid history.

Rt-PCR COVID-19 Result

Both cases, sample of specimens were sent for Rt-PCT COVID-19 test. The result showed positive COVID-19 antigen in post-mortem nasopharyngeal swab, tracheal swab, oropharyngeal swab, bronchial swab, body surface swab, serum, faeces, heart tissue and lymph node for both cases. Additional samples were taken from the case number two that showed positive result were specimen around the mouth, specimen around the nose, ear canal, vaginal swab, lower limb, vitreous humour, pericardial fluid and adrenal tissue. In case number one, no COVID-19 antigen detected in for pericardial fluid, pleural fluid, lung tissue, kidney tissue and thyroid. COVID-19 antigen also not detected in urine and ascites fluid for case number two.

What is the next step?

Looking at current findings, there is a need to explore other pathology diagnostic modalities to detect the changes due to COVID-19 from the paraffin block tissues. We plan to send the tissue samples to a pathology centre that can do more pathological diagnostic work to study the pathological changes in COVID-19.

Conclusion

So in conclusion, we perform high risk autopsy:

1) To aid in the current understanding of pathology of COVID-19,

ii) to provide valuable information to determine whether the death was direct or indirect result of COVID-19,

iii) the need to develop capacity and capability of forensic services to deal with any future pandemics

Acknowledgement

I would like to thank Datuk Dr Heric Corray, Dr Mohamad Azaini bin Ibrahim, Datuk Dr Mohd Shah bin Mahmood, Dr Siew Sheue Feng, Dr Siti Wira binti Md Yaro, Dr Slamah binto Arshad, medical officers, forensic scientific officers, medical assistants and health attendants in NIFM who helped me to prepare this presentation. With that, thank you.

Click the link below to access to Dr Ahmad Hafizam Hasmi's slide presentation:

https://cutt.ly/eyD9lz1

“Befrienders Experience in Community during MCO and CMCO” by Esther Teo Siam Cheng, National Council of Befrienders Malaysia (NCOBM)

Good afternoon and thank you. So, I am going straight to Befrienders worldwide.

Befrienders Worldwide

What do the Befriender centres offer and how they operate are summarized in a statement called the eight-point charter. It was started in England 1953 by Reverend Chad Varah.

From the point number 5 of the eight-points charter, Befrienders centres are non-political and non-religious. The volunteers do not seek to impose their own convictions on anyone. Now, there are 500 centres in 45 countries, and the number keeps on increasing proportionally to the demand of our communities worldwide. As in mental health issues, we know that it affects much younger age nowadays.

Our volunteers offer the “3 A’s + 1C” = Anonymity, Availability, Acceptance and Confidentiality

- i.e. the anonymity and anonymity to both parties. Volunteers and callers do not need to give their names as per their identity card. They don't have to give their true names.

- In terms of availability, we mean service hours offered by each centre. For example, Befrienders Seremban offers their service from 7 pm to 10pm, daily throughout the year with no holidays. The same goes to Befrienders KL which offers 24 hours and no holiday too. Every centre will be the same but their service hours are different.

- For acceptance wise, we accept every caller for who they are, and we are non-judgmental. We separate the being and doing. Every caller to us is the same although we might not like or in favour of what they are doing.

- Confidentiality actually is our trademark. From the point 4 of our eight points charter, it is stated the fact that someone has been in contact with a centre whether by telephone, letter, visit or any other means is confidential.

Befrienders Malaysia

Befrienders Malaysia started in the year 1970, in KL. Now, we have 9 centers : KL, Penang, Ipoh, Malacca, Seremban, Johor Bahru, Kota Kinabalu, Muar and Kuching. Kuching started in 2018, and now is going to be two years old soon, and for Kuala Lumpur already 50 years old. So, there are some volunteers who are more than 50 years old, i.e. about 50 years in befriending service. And the name of one of them is our national advisor, Mr. Ganganara is with Befrienders KL. If without this MCO, we would have form one more Befrienders centre in Terengganu but because of this MCO we have to hold on. We are very grateful to have professionals like Dr. Rohayati Muda, Dr Lim Poh Guan and the popular Cikgu Mohamad Azmi who help to initiate this forthcoming project in Terengganu. We're looking forward to this.

Befrienders Centres Contacts and Services

Befrienders Centres Contacts in Malaysia

Updated 13th May 2020 WA = WhatsApp

Pusat Befrienders di Malaysia yang menyediakan khidmat sokongan emosi untuk tempoh #PerintahKawalanPergerakan
Befrienders centres in Malaysia which provide emotional support during #MovementControlOrder

Befrienders Centre	Telefon / Telephone	E-mel / E-mail	Other Services	Waktu dibuka / Service hours
Kuala Lumpur	03-76272929	sam@befrienders.org.my	BefKL Skype 1	24 jam/hours
Penang	04-2815161 04-2811108	pat@befpen.org	WA: 011-56997687	3pm – 12am (midnight)
Ipoh	-	sam.befriendersipoh@gmail.com	BeflPOH Skype 1	2pm - 11pm
Seremban	06-6321772 06-6321773	-	WA: 018-9691772	7pm - 10pm
Melaka	06-2842500	-	Zoom	6pm - 9pm 9.30pm – 12 am (midnight)
Muar	06-9520313	sam@befriendersmuar.org	-	8pm - 11pm
Johor Bahru	07-3312300	sam@befriendersjb.org	WA: 07-3312300	1pm - 12am (midnight)
Kota Kinabalu	-	befrienderskk@gmail.com	WA: 016-8036945 FB Messenger: "befrienderskk"	7pm - 10pm
Kuching	082-242800	sam@befrienderskch.org.my	-	6.30pm-9pm

THIS TABLE OF SERVICES offered is for the Movement Control Order(MCO) period. Before the MCO, our normal Befrienders services are through phones, emails, WhatsApp and face-to-face befriending. But, during MCO we have to do some adjustment. So, during MCO, some centres are totally unable to operate as they are situated in the Red Zone areas of the COVID-19. So, every centre tried their very best to adjust and adapt to new modes of befriending to be accessible and available to the callers. We have services like Skype and WhatsApp which are temporary services. Also, additional phone numbers for temporary use.

Communication and Multimedia Collaboration

We can have all these services, and we would like to thank our Malaysian Communications and Multimedia Commission (MCMC) and the eight telecommunication companies. The eight companies (Celcom, Digi, Maxis, TM, Time, Umobile, Webe and Yes) who have collectively and generously offered free calls from the public to all Befrienders centres in Malaysia. This offer gives a great relief to the callers. It is a great relief financially to the needed callers. One of the reasons is a caller might not only call one time. They call many times, and they even become a regular caller.

The Call Statistics

I take the statistics from one centre which I am stationed in, that is Befrienders Johor Bahru. So, this is the call statistics from Befrienders Johor Bahru in year 2019. We have 356 in the month of March; 371 in April and 430 in May 2019. This number is only through phones excluding the other modes of befriending. So, for the 9 centres, the average calls are 3204, 3339 and 3870 for March 2019, April 2019 and May 2019 respectively. During MCO, the figures are double or more than double (March 2020, n of calls=695; April 2020, n of calls=824 and May 2020, n of calls=660 with the average calls of 6255, 7416 and 5940 in March, April and May 2020 respectively). Because of the MCO period, we really need a lot of volunteers and our volunteers have to work harder.

Befriending Services During MCO & CMCO

What are the differences in befriending services during MCO and CMCO?

We still have to base our 3A and 1C but there is a great difference now.

In a way, the anonymity and confidentiality is still the same, no change.

I will speak on the changes in acceptance and availability.

Change in “Acceptance”

So, for acceptance not only callers, we, the befrienders have to accept the situations and have to adjust accordingly so that our centres can be accessible and available to the callers. That's why I just showed the table that contains the modes of befriending. It also changed to mostly online. Yes. There are many types of callers.

Change in “Availability”

Before I speak on availability, I'm very grateful to all our nine centres. They are working very hard to find new ways and new methods to ensure their service is available. There are a number of volunteers that cannot come over because their family members get worried. So, there are reduced numbers of volunteers and also we have to abide by the rules such as the SOP on physical distancing. So, we also reduced our number of volunteers.

What are the new issues shared by callers during the MCO & CMCO period?

Now, we come to the new issues/topics shared by callers.

1) Family conflicts.

During this time, we received callers facing family conflicts involving parents, in laws and siblings. Normally before MCO, they are able to go out, to have their own space but now they are all locked in the same house, under the same roof. And they haven't got through this. So, they have this conflict. Some of this conflict is rather serious.

2) Jobs.

They have no income. Someday said they lost their jobs. Some used to have a stable job to cover up but now, suddenly, there's no more income.

3) Well-being.

Their well-being is also being affected. They are so anxious. They called up, and they said their anxiety levels are increasing. Before that, they said they also suffered from anxiety, but now they are getting more serious.

4) Doctor appointment.

They were not able to go to the doctor's appointment because they were worried. But when the time came, they were able to go to the hospital. They found it rather time-consuming and inconvenient. When they reached the hospital, they met the doctor and the doctor seemed not to have much time to be with them. So, they quickly took the medicine and came back. So, they called up befrienders to talk about it. But anyhow, they felt happy to have done their part -make it for the appointment.

And they feel good after talking to befrienders. If there is anything that they feel is not so comfortable, they can just talk to befrienders.

During MCO there are many professional counselling online which are accessible for callers, and they also tried out, and they found that the feedback from them were very good and very informative. And they also called up befrienders. I just wondered why. I asked them. They said they are very happy but still call befrienders because to the professionals, they like to be quoted as "well-behaved" compared to befrienders. They find that they can talk more easily with befrienders.

5) Festive seasons.

There are some issues with these. One of the festive seasons issues started from like “Ching Ming” where most people could not go to the graveyard to offer prayers or go to the temples. Although they could still venture a bit, they were not really affected. And as for Hari Raya, they could not go back home and have to stay home alone. Some did manage it, but most of them could get over it. They could get over it because I told them that they were not alone, or they can call as there are many helplines beside befrienders, So, in Malaysia, they are rather lucky.

6) Coping in MCO

I find that another unique finding for the different states of mind from the callers before MCO and during MCO. Most callers were anxious, and they were more doubtful concerning their strength of sustainability. They found that they can now when like firstly starting MCO. At that moment, they still can get excited. But after the MCO kept on extending, they doubted their sustainability ability. They doubt their own coping mechanism/ability to cope with MCO restriction.

● Working together with health care professionals

For Befrienders, we are trained volunteers. Some doctors, psychiatrists and health care professionals also joined Befrienders. From our eight-point charter, the point number 7: centres may on certain aspects, request the advice of professional consultants. So, Befrienders are always working with professionals and doctors.

For the point number 8 in the eight-point charter: in appropriate circumstances, callers may be invited to consider seeking professional help, in addition to the support offered by a Befrienders centre.

In every centre, we have a reference book. In the reference book, we have health professionals contact. We can provide emotional support but sometimes, at some part, we really cannot help, we give them the option to seek professional help by giving them the professional help contact. For example, in Befrienders JB, we have Dr. Siva, Dr. Benjamin Chan and Dr. Abdul Kadir as our consultants. And Dr Abdul Kadir is also one of our national advisors. So from here, I really hope that the doctors and all health professionals can join Befrienders or work together with Befrienders for the well-being of our community. With this, I thank you.

Click the link below to access to Esther Teo Siam Cheng's slide presentation:

https://cutt.ly/nyD9z2M

“COVID-19 Pandemic, The Mental Health Demons: How to Overpower The Challenges Ahead” by Dr.Ahmad Rostam bin Md Zin, Consultation Liaison Psychiatry in Hospital Sultanah Bahiyah Alor Setar

Introduction

Thank you very much Datuk Dr Chris for giving me an opportunity to present this topic. This is a very interesting topic to discuss for today. When we talk about COVID-19, we relate it to an unusual “storm” - something that all of us have not experienced before. COVID-19 caused a lot of problems to all of us, regardless of how we see it. Therefore, from our point of view, this is interesting because every one of us would perceive this “storm” differently, and we are having problems making sense of what is actually happening, as no one have experienced this before.

Moving forward, when we are talking about COVID-19, MCO and CMCO, we are relating it to loss. Therefore, all the patients who came to us could have lost something during the period of MCO, whether it is about freedom or connection with other people, opportunities, job and health. Every single one of our patients is quite unique. We have to really listen to them.

● Dealing with Loss - The Psychological Processes

We have to listen properly to what the patients try to relay to us because as I have mentioned earlier, every patient is special in their own ways. When we are trying to make sense of these losses:

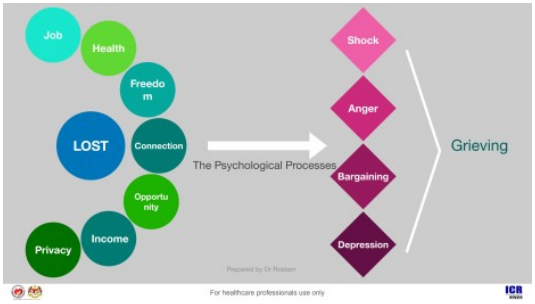
- there are patients who are COVID-19 positive;
- some are quarantined;
- there are people who need to be away from their family;
- some not allowed to visit their family members in the hospital.

It is important to take into account everyone's point of views. Going through cases that occur during MCO / CMCO, many patients who present to us came with symptoms of anxiety. We know that this is a period of uncertainty, as people do not know how to face this pandemic in the right way. This is the process of grieving or bereavement.

Five Stages of Grief - A Kübler-Ross Model

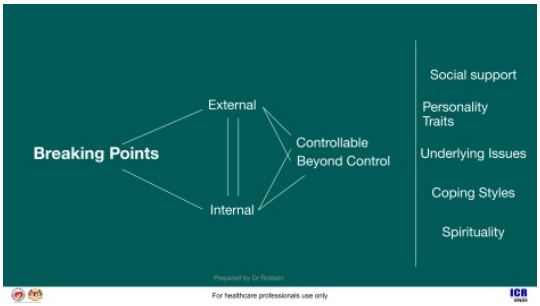
The five stages of grief could be described by the Kübler-Ross Model. They are shock, anger, bargaining, depression and acceptance. Acceptance is the stage where we try to bring our patients to. Helping them to accept that we are facing a very difficult period which is COVID-19. When we see our patients including our front liners, they are experiencing these 5 stages of grief.

Example of people in the bargaining stage: the most common example which we could see is in people who are trying to cross state borders during MCO. In my opinion, this could be categorized as one of the stages of grief. The public is trying to make sense of the movement control order and what has been imposed by the Government. As psychiatrists, we will try to make things look more normal in this period of abnormality for everyone, by listening attentively to what our patients or the clients try to explain to us, and understand the types of loss that they have to go through, which has been stated on the picture below.



Breaking Points in Loss and Grieving

When we talk about loss and grieving, there would also be breaking points for everyone who has undergone such emotional turmoil. Every one of us have different levels of breaking points, whether it is external breaking point or internal breaking point.



External breaking points

External breaking points could be linked to the social support face at home. Many of us live with family members, friends or people who are close with us. These are the social support that we have. However, we need to remember that during the MCO period, many people could not move out of their homes, they might be living with a broken social support at home, in their vicinity. There is some people who might not be happy staying at home, leading to a source of pressure/stress in them. Other external breaking points include loss of job, working opportunities, income, and social services during MCO.

Internal breaking points

On top of that we have our own internal psychological defence which encompasses the internal breaking points. Our coping styles could be completely different from each other. There are some people with abnormal/inappropriate coping styles (*e.g.* the use of substances, smoking, drugs, binge eating); some people also cope by throwing tantrums and anger. There have been reports of an increase in domestic violence due to the fact that some people cannot cope with the stress caused by the pandemic, and they lash out their anger on their loved ones. On top of that we have other internal coping mechanisms like our spiritual beliefs and personal traits help us to cope/hold on during this "storm" (COVID-19 pandemic).

● Symptoms of Breaking Points

When a person “breaks”, there are a few symptoms that they would present to us. Firstly, psychological symptoms, in which many of us could identify.

- Anxiety

Anxiety is the most common presentation to all of us, which also occurs amongst front liners. They come with worries that they have been infected with COVID-19, as well as worries of affecting the health of their family members, loved ones, and strangers. Literature has shown that anxiety is the most common manifestation occurring during COVID-19 pandemic.

- Aside from anxiety, we have anger problems,
- bargaining problems (in a good or a bad way),
- people undergoing depression.

We must remember that many people who stay at home might inflict pressure on themselves.

Post-partum Depression

The most important group that we should be aware of are post-partum mothers, in which they do not have the kind of support that they have before. Before COVID-19 pandemic, post-partum mothers would get a lot of help from outside as well as visitors.

During MCO / CMCO, they are usually left alone, with their spouses having to work most of the time, and they might not be able to obtain the support they need. This may worsen their depressive symptoms.

I don't see this as an indication in the increase of incidence of post-partum depression, however this might increase the risk of new mothers having post-partum depression.

How do we help these patients?

Identify the types of losses

As I have mentioned earlier, we need to identify the types of losses in these groups of patients.

Listen and empathize

Once we are able to listen to their loss, we are able to empathize and gauge their problems. Most of the time patients do not want our advice, they just want us to listen to them.

Low intensity, supportive psychotherapy education or talk therapy

We should also offer low intensity, supportive psychotherapy education. This does not require special training. Just the ability to listen and to understand what our patients tell us. By understanding them better, they would also open up to be better. Most of the patients that come to us do not need medications. Instead, they need psychological support from us, in layman's term "talk therapy".

Build resilience

When we have identified their losses, we can help to build up their resilience. This can help them to manage their anger and other negative emotions well, and to assist them to make better decisions.

Click the link below to access to Dr.Ahmad Rostam bin Md Zin's slide presentation:

https://cutt.ly/dyD9xG1

“CATCH-22: Psychological _____ on Healthcare Workers” by Dr. Ravivarma Rao Panirselvam, Hospital Miri.

The Situation

Thank you Datuk Dr Chris. Hello everybody. Thank you so much for giving me the opportunity to talk about what happens to healthcare workers. It is actually sort of like a “CATCH-22”, whereby others stay at home, but the healthcare workers have to be at work. This puts us at a higher risk, as we would meet people who might be harbouring the virus. I would like to talk about how healthcare workers are affected, and more importantly I would be explaining what we could do in terms of helping healthcare workers as a whole.

Most of these effects are often masked, we might not be able to see it. Healthcare workers are affected directly or indirectly. The common emotions that exist are distress, depression, anxiety and insomnia. Those affected range between 20% to 30% of the people.

Why Do Psychological Emotions Occur?

This is mainly due to **exhaustion**. It's not just usual work, but usual work plus **extra work**. The **availability** and unavailability **of PPE** is an exhausting factor, and the way we have to **change in our work** could also exhaust us especially due to the new services introduced such as online, telemedicine.

Aside from all of this, the media coverage of healthcare COVID-19 clusters; the fear of being infected and the fear of infecting others and the stigma that we suffer as we work in the healthcare sector. Some reports from Singapore showed stigmatization of healthcare workers (the public shunned them away due to the fear of COVID-19 infection).

This links to an element of moral injury. This came in the earlier stages of the pandemic. We are entrusted in doing something that is not consistent with our ethics. In some parts of the world where they are less prepared for the pandemic, the situation is much worse.

The level of support the healthcare worker gets from the very beginning of the pandemic and after the pandemic also place a huge role leading to psychological emotions.

● Factors Affecting These Responses Are Complex

There are many factors which affect these responses. Social demographic factors (***i.e.*** age, gender) have been examined by researchers. If one is much younger, he or she might not have lived through the SARS epidemic times, that would mean that one is less resilient in handling a pandemic. In Singapore, those who have actually gone through the SARS epidemic, they were found to be more resilient as compared to those who have not gone through the SARS epidemic. The location of the workplace also plays a huge role, such as healthcare workers in the front line or those working in other departments. A study conducted in China have found that the healthcare workers who are the support group (***i.e.*** not front liners) were found to be more stressed probably due to the fact that support did not reach them and the amount of workload could be burdening them as well. When staff were deployed to COVID-19 wards, the work in the non COVID-19 departments could increase, shortage of manpower would lead to more work amongst staff working in the non COVID-19 departments.

● Recognition (Reactive vs Proactive vs Spectrum of Challenges & Help)

Knowing all these are important because it would be able to help us to recognize and to deal with the challenges as well. Recognition could be difficult as sometimes we are not aware of our own challenges, or whether we are in distress or not.

When I was preparing these slides, I spoke to one of my colleagues who was working at one of the COVID-19 wards at a different hospital. She has mentioned that “managing COVID-19 is not difficult, however what is difficult is the management of the fear and the responses that come about it.” This is why we must support other healthcare workers and help them to go through their distress. Healthcare workers really need to look after ourselves and our colleagues as well.

Handling Mental Health Issues

In this context, I have organized a diagram which depicts on the things we can do for ourselves, for the people around us and most importantly, what organizations (*i.e.* hospitals, departments, GPs, local pharmacies) can do. If we look at the way we respond to psychological issues with regard to COVID-19, there are a lot of things that we could do which would work much better than to see a mental health professional immediately, in which I would explain in the following slides.

Self-Care

As healthcare workers, we need to realize that being **stressed is not a sign of weakness**. The whole idea is that we need to slowly accept that this is a difficult time, and we could simply recharge to make ourselves feel better by looking after ourselves, taking breaks. We could also stay connected with friends; to learn to communicate our distress or unhappiness, is an art that sometimes we as healthcare workers fail to do. Constructive criticism is something that we do need to be mindful of. Wherever you are in the healthcare spectrum, your work matters at this moment. We need to accept that we play important roles during this COVID-19 pandemic. We need to respect the differences that some people might go through due to COVID-19. It is okay to get help when needed.

Care for People in Your Social Circle

We would also need to keep an eye on our colleagues and the surrounding people. Asking “are you okay?” can be very valuable.

● Organizations

● Organizations play a role in facilitating all the events that happen, and it can be conducted in two ways, one is the structure of psychosocial support, and continuously getting ourselves equipped in facing the pandemic. We need to build a sense of safety for people who come to work.

● Basically we need to look at every aspect of how we work. We might need to revise policies and to make sure that they are clear and comprehensive. They should cover all the tiny details which are required.

● We need to communicate information as it happens because things are evolving. When implementations are made, we need to improvise as things go.

● Leaders who are managing should also go to the ground level from time-to-time.

● Policy implementation has to happen in a way that it does not cause a further division among healthcare workers.

● Resources, especially PPE; the lack of PPE could cause a lot of distress. We need to inform people when there is a shortage. Once people feel safe, they would consider giving support and help when necessary.

Mental Health & Psychosocial Support Network (MHPSS)

Most hospitals and health clinics would have a Mental Health & Psychosocial Support Network (MHPSS). We have a MHPSS team in Hospital Miri. It grew as we started working through the pandemic. We focused on needs; it could be technologically driven which is in line with the physical distancing; interventions have to be evidence based. As we do have our clinical work, preparing for such a framework requires extra work, hence we need to actually build a capacity. This is how organizations would help in cultivating self-care and care for people around our social circle by giving information, training and empowering people to look after themselves. Information campaigns are important and could be done through Telegram. This has to last beyond the COVID-19 pandemic.

MHPPS in Hospital MIri: Workbooks, Hotline, Lounge

We have produced COVID-19 workbooks (image above) to be distributed to patients, but it turns out that even healthcare workers assigned to COVID-19 wards ended up liking the workbooks as well. This is just not to fill in time, but the books have mental health tips and information we know regarding COVID-19 at that time. These books are disposable, and would be thrown away after patients have used them in the wards.

WE HAVE TWO HOTLINE numbers where people can message or call to obtain support. We have also prepared two lounges at Hospital Miri, the lounges are characterized according to its risks. Infection control protocols are implemented. Many people do not have the time to rest during the pandemic and the availability of these lounges have proven to be useful.

● Empowering HCWs in Supporting Each Other (Especially Managers)

Part of MHPSS work also to support managers. When they are supported, they would be able to help in their particular unit because junior colleagues might not be able to make decisions well. People should work in a team, but rotated from high intensity workload to low intensity workload and get adequate rest.

Crisis Conversation

This is a case that happened in our clinic. We had an exposure whereby the person who came in to our clinic was a Patient Under Investigation (PUI). The staff at the clinic were all anxious and there was a lot of anxiety.

What do we do about it? We had an honest conversation and it turned out that there was misinformation. The crisis communication cleared up the misinformation. There is a need to have a safe space to be honest, open and vent in order to reach a constructive consensus.

Not to Leave Anyone Behind

Nobody should be left behind. While we talk about doctors and nurses, we also need to think about our cleaning staff and our security staff. We give out the self-care kits to those who are picking up extra shifts at work. This is also something in which people appreciated.

External Support

It is always good to work together. In Sarawak, we have a Telegram channel that helps in disseminate mental health information and helps out in our mental health campaign. We co-produced interventions, such as **Online Suicide Prevention Training in COVID-19** with colleagues at UTAR. All staff could attend the training as it only lasts for 30 minutes. We have support services such as hotlines (*e.g.* Befrienders). Specialist mental health services are also provided to patients who really need them.

Health System

The whole health system needs to use its platform to help healthcare workers and to combat stigma. Communication needs to be clear. The health system needs to work for all and not just for a selected few, some people might be forgotten (*e.g.* people working out of states, single mothers). This is actually the diversity of healthcare workers that we have in Malaysia and everybody needs to be seen and heard. When they are seen and heard, they work better.

Click the link below to access to Dr. Ravivarma Rao Panirselvam's slide presentation:

https://cutt.ly/DyD9Wgk

Q&A Session

Dr Ravi, I think that a lot of things you have mentioned are very pertinent and relevant and I can say from my personal experience especially the role of the leaders of the team, this is extremely important. I personally think that the role of the leaders is the key. At the end of the day, the person in charge on the ground would take charge and look after the entire team. They should be close enough to the team members to assess and to know whatever levels of anxiety and worries need to be addressed. This pandemic is huge compared to whatever we had in the past, whether this is something that leaders have to be trained to do, we have no time to prepare as such.

1. What is your specific message/advice/tips to our leaders/HOD can do to help in mental health well-being among healthcare workers?

Dr Ravi:

The more important thing is that leaders themselves can get affected, and we are also expected to carry a lot of roles. So, I think, getting yourself supported is important. Working in a 'Buddy System' is quite useful (*i.e.* two people leading a team, if one needs a break, he or she can pass it on to the next person). Important to practise self-care.

Leaders could also talk to other leaders to get ideas on how to cope with this pandemic, including sharing their best practices.

Another thing that could be done and was practised by the Mental Health Psychosocial Support (MHPSS) team in Hospital Miri is that they met with the leaders and thought of a "HACK" session with them. Discussions are held to understand the difficulties faced by the leaders and to empower them with skills.

The best thing that any leader could do is to listen to everything that is happening on the ground; to see the challenges and to build rapport with the other staff members so that the staff members would not be afraid to approach the leader when they face any problems. Let's say you are leading the outpatient clinic, you need to actually step into the clinic once in a while. As a leader, even if a problem could not be solved, working together would be beneficial.

Datuk Dr Christopher Lee: Leaders should lead from the front. You cannot send people in the harm's way without having some of these experiences yourself. And, clearly, the respect for the leader is stronger when the juniors see you there (at the ground together with them). Obviously as the head of unit/head of section, you may not be doing the nitty-gritty work at the ground every single day, yourself, as you have different categories of staff doing different jobs. But the fact that you lead from the front, I think they appreciate the difficulties you, yourself have personally faced especially in the aspect of PPE. My humble advice that I dare give to the leaders at the ground, please lead from the front and our juniors depend on us to do that.

2. What is the plan forward in COVID-19 death? How do we choose which COVID-19 mortality case to do postmortem from now on?

Dr. Ahmad Hafizam:

Going forward, we think the best approach for the next autopsy for positive COVID-19 cases that died in the hospital, we would like to examine cases of young deceased person without co-morbid (*i.e.* not being admitted for too long in wards). The diffuse alveolar damage can be due to prolonged mechanical ventilation. If we would like to look into the particular pathology in patients due to COVID-19 in our country, the ideal subject should be a young patient with no co-morbid. Based on our experiences right now, our health system is very good at dealing with COVID-19 patients. We can see that the fatality rate is very low as compared to other countries including European countries. Their case reports also mentioned cases in which the patient passed away outside the hospital, in which for Malaysian setting, we do not have the particular numbers of this yet. The numbers we have right now, mostly are patients who died in the hospital. Moving forward, we think that in forensic services, what we would like to examine in order to help clinicians to understand the pathology of COVID-19 is deceased young patients with no co-morbid.

3. What is the indication to perform a post-mortem CT scans at HKL?

Dr. Ahmad Hafizam:

The indications to perform post-mortem CT scans in Hospital Kuala Lumpur is if the particular case is subjected for legalized post-mortem. For COVID-19 cases in Hospital Kuala Lumpur, we do perform post-mortem CT scans for cases whereby the patient dies in the hospital even though it is not subjected to legalized post-mortem examination, as a **learning curve.** Therefore, we can see the particular radiological image of confirmed COVID-19 cases. There are not many COVID-19 cases which are subjected for CT scans, even in a living patient. Currently, in Hospital Kuala Lumpur, we have 10 post-mortem CT scans images of confirmed COVID-19 cases.

4. Were there a lot of issues among students in regards mental health during MCO and CMCO?

Esther Teo:

From Befrienders' perspective, we have received calls from students. Generally speaking, the students are locked in and weren't able to meet their friends. They feel lost and they missed their friends. They have to stay at home, and they need to cope with both housework and homework. Some parents might not understand their children's situation. The child complained that even though she finished her homework, her parents still not happy. Hence, they found it difficult to stay at home during the MCO period. They want to go back to school.

Dr. Ahmad Rostam: In terms of technology, our younger generation *(i.e.* primary school students, adolescents, university students) are more adaptive to the technology as compared to us. I don't think they have any problems to with using technology to do their homework and coursework online. The pressure that they received is actually from external sources.

Firstly, it is the loss of (social or) peer support that they would usually have when they were able to go out of home. Secondly, it would be the expectation from their parents. This is because most parents have their own expectation on how their children need to behave. They have their expectations on how their children should do their homework, the need for their children to follow their own schedules instead of letting the children to plan on their own. So, this put a lot of pressure on their child. All these caused a lot of stress to the children.

Peer pressure from other parents in the communication group (*i.e. WhatsApp, Telegram)* might also affect other parents in the group chat, when it comes to managing their children's well-being. There are other issues that some children have for face. For example, the problem with internet data/connection, issue with time and issue with the parents who are working. All these causing a lot of problems to our children.

I can see how the teachers evolved when it comes to teaching children online. Initially the teachers put up the names of students who completed their homework on time. This actually not good for the children who have problem with internet connection. By today, the teachers are more empathetic towards the children and parents who do not have the luxury of internet data. It is the external factor that put pressure on the children and not so much about the homework itself.

5. How many callers called with the intention of suicide in mind during MCO and CMCO?

Dr. Ravi:

With regard to suicide, I think there have been no one cause that leads to suicide, but I am quite sure that the COVID-19 isolation can worsen the existing stress and complicate the situation. As of now, we do not really know of rates or cases presenting to suicide, this can be due to many reasons, such as when people are isolated and also the access to lethal methods. Nursing in COVID-19 wards could be very isolating, not just for patients but also for healthcare workers. This isolation itself could foster the suicidal thoughts amongst patients and healthcare workers and worsen the suicidal thinking. The pandemic can easily foster helplessness and disconnectedness amongst people. Handling it by improving connectivity is one way forward.

Esther Teo: I agree with Dr. Ravi, isolation during the pandemic causes suicidal thoughts and affects mental health amongst people. During MCO, I, personally received angry phone calls. They would call just to shout and scold, sometimes, they scolded quite badly, and then they would just hang up. There were also phone calls whereby the person would yell out "COVID-19! COVID-19!" before hanging up. Some phone calls were linked to suicidal issues. We would ask them if they are alone. We would try to let them talk more, and we will listen. In between, we would ask them again and again, if they still have suicidal intentions. Eventually, they would "postpone dying" at the end of the call. They will mention, they are not sure when the suicidal thought will come back. We will always ask them to call whenever the suicidal thought comes back.

6. From Befrienders' experiences, have there been any increase of domestic violence issues during MCO / CMCO?

Esther Teo:

The increase in the number of phone calls did include such issues. Usually each person would have their own fixed schedule (at home, at work etc). Now, everyone is locked indoors, there would be inevitable and unavoidable conflict with parents and in-laws. (*i.e.* negativity towards in-laws, negative feelings get stronger during MCO. She also felt like killing herself) I find that we should not take family conflicts lightly because it would lead to suicidal thoughts too.

7. How do we manage internal and external stigma among health care workers?

Dr. Ahmad Rostam:

The stigma is real. When we are dealing with psychological issues among our healthcare workers, in Hospital Sultanah Bahiyah, we received a lot of reports from healthcare workers, because they are being marginalized for working as healthcare professionals. This stigma could come from their own spouses, friends, neighbours or family members in which it could be very demotivating for most of them. Healthcare professionals are an altruistic group of people in which we would like to help people. However, in this situation, many people are being uneasy due to COVID-19 pandemic, and it is unfortunate that healthcare workers have become collateral damage in the process. This is because healthcare workers would be dealing directly with the COVID-19 positive patients. Healthcare professionals are safer than the public even though we are dealing with the COVID-19 patients because despite being frontliners, healthcare professionals have taken the necessary safety precautions in protecting ourselves while working closely with COVID-19 positive patients. Unfortunately, many people are unable to see this.

How should we manage this then? Firstly, as healthcare workers, we should always support each other. We must work together in this situation. It is rather difficult to make everyone to understand what healthcare workers are dealing with in this pandemic. ***#KitaJagaKita*** (*we take care of us*) hashtag should be implemented.

Secondly, very important part is the leadership. From our observation with 2000 clients in psychological first aid course that we conducted in Kedah, we can see a few things that they need from their leaders. They want their leaders to be able to smile

together, able to greet everyone, and to be able to connect with all levels of healthcare workers.

Aside from doing this together, we need to know that we are doing this for the nation, for our family and our population. All forms of negative feelings should be put aside. We can continue to educate the public to a certain extent.

Dr. Ravi: I think Dr. Rostam has spoken about stigma involving other people. What I would like to continue is to discuss healthcare workers' stigma towards other healthcare workers' stigma, which is a real thing. It gets steers up from time to time among colleagues from the same department or even in other departments or other hospitals. This can happen on a day-to-day basis. A lot of people still don't know much about the virus and the knowledge about the virus is evolving. The fact that the misinformation that spreads, it actually fuels the stigma. Healthcare workers should at least be informed. It is important to educate all healthcare workers on how COVID-19 actually spreads and its precautions in hospital or at unit level. When incidences of stigma are reported in the healthcare workplace, it should be reported and actions have to be taken. It is not to be punitive to the person who is stigmatizing the healthcare workers but to educate them. There should be avenues for people to act on (*i.e.* feedback and management) when any form of stigma happened to them.

8. Our COVID-19 fatality rate includes patients who died from non COVID-19 causes. Will post-mortem help to define actual COVID-19 death and therefore reflect the true fatality rate?

Datuk Dr. Christopher Lee:

Yes, post-mortem will help us but, clearly, we cannot do it for all the cases. WHO has given us a new classification on how we can classify COVID-19 deaths. It is a very simplistic way, as WHO has looked into deaths to see whether someone has died because of COVID-19 or whether someone has died with COVID-19. The National Mortality Committee has gone through this classification. We have adjusted the figures. It is sufficed to say that the number of most of the deaths in Malaysia are **because** of COVID-19. However, there are approximately 7-8% of these deaths, in which patients died **with** COVID-19. These patients died with other disease entities including cancer, coronary heart diseases. I think Dr. Hafizam has shown one or two cases during the post-mortem findings just now. Overall, it doesn't change our numbers in a very big way. Case fatality rate is still relatively low.

Speakers' Brief Bio

Dr Ahmad Hafizam bin Hasmi currently is a Forensic Medicine Specialist practising in National Institute of Forensic Medicine, Hospital Kuala Lumpur. He graduated and coffered MD degree from Universiti Sains Malaysia (USM) in 2003 and subsequently pursued his postgraduate qualification, Master of Medicine (Forensic Pathology) at Universiti Kebangsaan Malaysia and graduated in the year 2013. He has undergone Advanced Competency Program (Forensic Pathology) at Victorian Institute of Forensic Medicine, Melbourne Australia in 2019.

Teo Siam Cheng (Esther Smiling) is the President of National Council of Befrienders Malaysia (NCOBM). As a potential Befrienders, she was given a full year training in 2007. After she pledged herself to be a Befrienders in 2008, she was then serving in the exco for both Befrienders JB and the National Council. She is one of the past chairperson of Befrienders JB, six years as Vice President in the National Council. And on the chair since 2016.

Dr Ahmad Rostam bin Md Zin is currently practising as a Consultation Liaison Psychiatry in Hospital Sultanah Bahiyah Alor Setar. He has been in service for the past 16 years and has been working in more than 10 hospitals all over Malaysia and Singapore. He is currently an EXCO member of Malaysian Psychiatric Association and past president of Early Career Psychiatrist.

Dr. Ravivarma Rao Panirselvam is a psychiatrist, mental health advocate and suicide prevention researcher in North Sarawak. Affiliated with the Ministry of Health Malaysia, LAMAN MINDA and Suicide Prevention Research Malaysia (SUPREMA).

CLICK THE LINK BELOW to view the panellists' information and details of the webinar:

https://clinupcovid.mailerpage.com/resources/r2e4u7-postmortem-findings-in-covid-19-p

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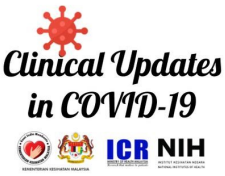

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"**Clinical Updates in COVID-19**" is a weekly medical webinar organized by Institute for Clinical Research, NIH Malaysia. The team consist of Dr.Chew Cheng Hoon, Ms.Yip Yan Yee, Mdm Lim Ming Tsuey, Datuk Dr.Christopher Lee Kwok Choong and Dato' Dr.Goh Pik Pin.

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