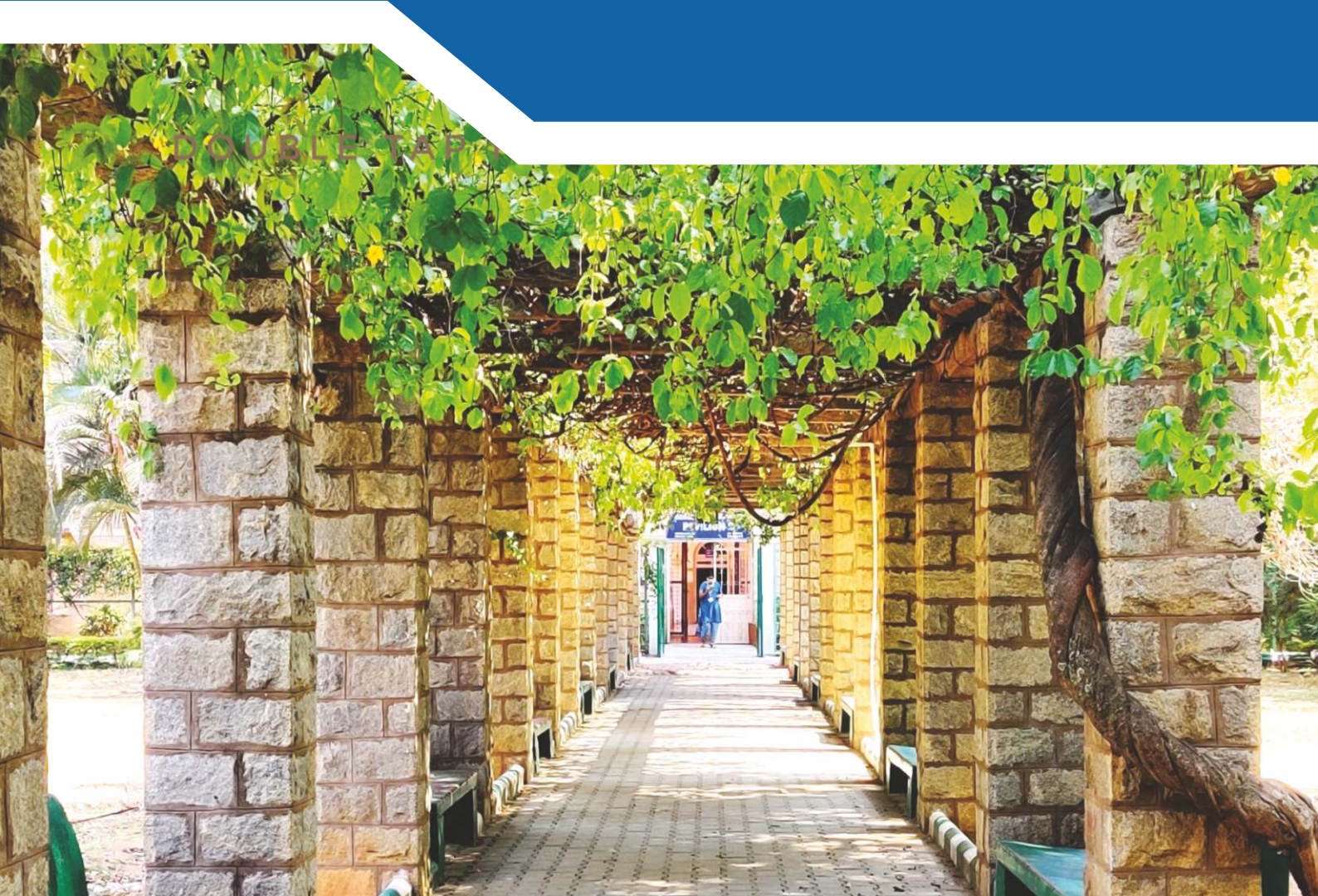




Mental Health in the times of **COVID-19 Pandemic**

Guidance for General Medical and Specialised Mental Health Care Settings



DEPARTMENT OF PSYCHIATRY
NATIONAL INSTITUTE OF MENTAL HEALTH & NEUROSCIENCES, BENGALURU, INDIA

APRIL - 2020

Mental Health in the times of COVID-19 Pandemic

Guidance for General Medical and Specialised Mental Health Care Settings

All Contributors / Reviewers are Faculty / Senior Residents of the
Department of Psychiatry,
National Institute of Mental Health & Neurosciences

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Correspondence:
Department of Psychiatry
National Institute of Mental Health & Neurosciences (NIMHANS),
Bengaluru, India-560029.
Tel: +91-80-26995250 / 26995261
Email: psychiatry@nimhans.ac.in



NATIONAL INSTITUTE OF MENTAL HEALTH AND NEURO SCIENCE

AN INSTITUTE OF NATIONAL IMPORTANCE

P.B. 2900, Bengaluru – 560 029 (India)

Dr. B. N. Gangadhar

MBBS, MD, DSc (Yoga), FAMS

Director

Sr. Professor of Psychiatry

Off : 91-80-26564140, 26561811
26565822, 26995001 / 2

Res : 91-80-26562040

Fax : 91-80-26564830 / 2656212

Email : kalyanybg@yahoo.com
bng@nimhans.ac.in

MESSAGE

The National Institute of Mental Health and Neurosciences [NIMHANS] has been working with the Ministry of Health and Family Welfare, Government of India in effectively supporting the health care response to the COVID-19 pandemic in the country. One of the foremost concerns emerging from the different aspects of COVID-19 is its impact on mental health.

NIMHANS has responded quickly by setting up a task force in Mental Health on behalf of the Ministry; setting up a helpline; establishing a continuum of care service for patients with psychiatric, neurological and neurosurgical problems and strengthening telemedicine facilities to provide tele consultation to patients. Further, NIMHANS has been working with the Karnataka State Government to ensure psychiatric care and medications to patients on a continuing basis. Through the NIMHANS Digital Academy, thousands of doctors, counsellors, nurses and other professionals are being trained to provide psychosocial support in this crisis.

The Department of Psychiatry has collectively developed guidelines for effective mental health management in general medical and specialized mental health care settings. This is timely and very much needed. This publication comprehensively covers mental health concerns of the general public, as well as those with psychiatric illness. Beyond mental health care, it also addresses safety issues of psychiatrists and other mental health care providers.

While being aware that mental health concerns may keep changing in different phases of the pandemic, these guidelines will nevertheless continue to be relevant, though they may require modifications from time to time.

I congratulate the Department for coming together for this important initiative.

13th April, 2020

Dr B. N. Gangadhar
Director, NIMHANS

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REVIEWERS :

Sr. Prof. Santosh K. Chaturvedi, Sr. Prof. Sanjeev Jain, Prof Vivek Benegal

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Editorial Foreword

Mental health issues following the COVID-19 pandemic stem from **'normal' people being exposed to 'extraordinary situations'**. The presentations are myriad, and include emotional difficulties like anxiety, depression, biological effects like sleep, appetite disturbances as well as severe mental illness and substance misuse. For most, these symptoms are mild and transitory, but a minority may develop severe mental health issues that require additional mental health support. Children, elderly, pregnant women, people with pre-existing mental illness, people living alone and families of those who have died in the COVID-19 pandemic may belong to this group. Another important aspect is the psychological impact of the pandemic on the first response teams. The long hours working in potentially dangerous situations, with less than satisfactory personal protection equipment, make them particularly vulnerable. The widespread social and economic disruption of the pandemic has produced a psychosocial impact unheard of in modern times. All these have been further fuelled by information overloads of new generation media platforms that have relentlessly spread a mix of accurate as well as inaccurate information and even conspiracy theories which in turn have had a psychological impact on the community. The mental health and psychosocial impact of COVID-19 has thus been far-reaching.

All these have thrown an unprecedented challenge to mental health care across all settings in India. Given the likely magnitude of the pandemic and the patchy availability of specialist mental health care across the country, it has become necessary for all non-psychiatric health care professionals who often form the frontline of the health care response to provide 'whatever is possible'. Besides, the care of psychiatrically ill takes a back seat in pandemics. While this needs to be addressed, it is necessary that day-to-day psychiatric practice be recalibrated to ensure greater sensitivity regarding infection transmission. **This document is the collective effort of the Department of Psychiatry, NIMHANS and aims to provide the technical framework to meet these objectives.** *The document has two parts, the first, guidance for non-psychiatric medical professionals to address the immediate mental health needs of persons in the community and COVID-19 treatment centres. The second part provides recommendations for psychiatrists to ensure safety during their day to day practice, given the unprecedented infectious disease outbreak.* Professionals and frontline personnel accessing this document are likely to be overburdened and time-constrained and may be exploring answers in only one specific domain. Given this, each section is comprehensive in itself. This has however meant some degree of overlap across various sections. The sections are written in simple language to ensure understandability by personnel with varying mental health literacy. The sections focus on the immediate and short-term mental health impact of the pandemic. Though specific to mental health issues in COVID-19, all clinical aspects have been discussed in a

broad framework making it adaptable to any large infectious outbreak. This will also be available as a free online resource which may help mental health professionals working in low-resource settings across the world.

In preparing this document, the contributing authors with many years of clinical, training and research experience in psychiatry have quickly reviewed research, and all guidelines published to date by World Health Organisation (WHO), Inter-Agency Standing Committee (IASC), Centre of Disease Control and Prevention (CDC) and Government of India on the COVID-19 pandemic. They have incorporated these guidelines and adapted them to India's unique socio-cultural and relatively low-resourced public mental health settings. Senior faculty of the Department have independently reviewed to ensure sections are in concurrence with the broad objectives of the document.

The COVID-19 Pandemic and Mental Health – An Introduction

Currently, all of us are experiencing emotions, thoughts and situations we have never experienced before. It is not that there were no pandemics earlier. Pandemics, particularly plague outbreaks have been known since times immemorial. The Cholera pandemic followed by the flu pandemic were highlights of the nineteenth century. Another cholera epidemic and the “Spanish Flu”, ravaged the world in the early part of the twentieth century. Subsequently, while there have been outbreaks of Asian flu, SARS, MERS, Ebola, etc, the pandemic of COVID-19 is on a completely different scale. It has shaken the entire world and created global panic. As COVID-19 initially creeps in and subsequently spreads at a galloping pace, it has been ravaging country after country. The pandemic has significant and variable psychological impacts in each country, depending on the stage of the pandemic.

At the time of this publication, in early April 2020, India is still at the stage of limited community spread and there is no idea how this pandemic will unfold. A large part of the psychological responses have so far been reactionary to what has happened in other countries in the world, fears of what might be in store in the times ahead and responses to the lockdown.

Spectrum of effects

The psychological effects of the pandemic are best understood in terms of psychiatric and psychological problems that were present before the pandemic and the pathoplastic effects of the pandemic on these problems; the responses to social isolation and lockdown; the psychological response to the diagnosis, public responses to those with symptoms suggestive of COVID-19 infection, as well as the aftermath of the infection.

In India, the first and foremost responses to the pandemic has been fear and a sense of clear and imminent danger. Fears have ranged from those based on facts to unfounded fears based on information/misinformation circulating in the media, particularly social media. At a time when change is the only constant (concerning advisories and precautions, as we move through different stages), the What to do? What not to do? questions are near-universal and give rise to worry and fear. Each of us responds differently to the barrage of information from global and local sources. This can lead to those who are the “worried well”, those who develop distressful psychological symptoms and maladaptive coping with stress, and those who develop a mental disorder. The fears of contracting the illness are also frequent and range from misinterpreting every fever or cough as a COVID-19 infection, wanting a test done for reassurance even though there are strict guidelines for testing, to hoarding medications despite there not

being indications for their generalised use. Apart from the advisories regarding handwashing, doubts about whether or not to use a mask, what type of mask, what distances to maintain, what surfaces need disinfection with what? There are also real worries of job losses and economic slowdown during and following the pandemic. The list is endless and leads to a cycle of concern, worry, and distress. On the other extreme are also completely unworried or uncaring, who feel they are invincible and do not need to follow any advisory or precaution. This attitude can also lead to an endangerment to self and others.

Responses to social distancing and lockdown

The social distancing and lockdown have also led to several changes in day-to-day activities, redistribution of home chores, extensive working from home and greater time spent with those living together. Notwithstanding the importance of social distancing (although many prefer to use the term physical distancing), such a requirement has meant long separation from families (for those working away from their hometowns), financial stress and interpersonal strain. Reactions can range from boredom and moodiness to anger, irritation, and frustration. Another maladaptive coping is through the use of mind-altering substances. Uncertainty and a sense of loss of control are undoubtedly the pathogenic agents for anxiety, panic, and depression.

A more focused gaze

While one can view these reactions from a 'general' lens, it is equally important to consider the impact of the various phases of the pandemic on children, the elderly and pregnant women. The worries of adults can be transmitted to children and make them anxious and fearful. They can become very easily bored, angry and frustrated. Without an opportunity for outdoor play and socialisation, they may become increasingly engrossed in social media and online entertainment, which can make them even more socially isolated when they emerge out of this situation. Parents need to know means of keeping the children engaged, providing an opportunity to learn new skills at home, as well as encourage children to participate in activities, get them engaged in “edutainment” and hone their extra-curricular skills as well. Children with special needs may need innovative approaches to engage them and keep them active at home. For the elderly, they can feel further isolated and neglected, become more worried about their families, and increasingly worried about their health. They may not have the support systems to care for them, particularly in terms of their medical needs. This can aggravate into anxiety and depression. Pregnant mothers can have a host of concerns, from worries about whether or not to go for ante-natal examinations, worries about risks to the unborn child, worries about their contracting the infection and concerns about the future. Gender perspectives also need attention as times like this can amplify an abusive relationship and increase intimate partner violence.

In any of these situations, it is important to anticipate that stress, depression, and anxiety, if not effectively recognised and handled can transform into more severe distress, even leading to negative thoughts about the future, helplessness, hopelessness and suicidal thoughts and feelings.

Stigma

One has never imagined the stigma that might accompany COVID-19. There are several instances of people at risk, particularly health professionals being evicted from their premises by anxious landlords, people in quarantine being isolated from society, and cruel societal responses to people with a diagnosis of COVID-19, leading to people not disclosing symptoms and not seeking appropriate medical help.

Concerns for persons with mental illness

Persons with pre-existing mental illnesses and substance use are particularly disadvantaged during the lockdowns. For persons with mental illness or epilepsy, reduced access to medication can lead to relapse of symptoms, as can the compounded stress. For persons with substance use disorders, sudden withdrawal leading to seizures, delirium, agitation, and even suicide have been described.

Adapting to the changes

At this point, it is also important to emphasize that many people can handle this situation more constructively- by being calm or learning to stay calm, by busying themselves with simple daily activities, avoiding depressive or fear-inducing programmes on television or social media, connecting with others through telephone or digital means, cultivating or rediscovering old interests and hobbies and of course. For those employed, learning to work from home is a novel and challenging task for many. Discovering ways to calm the mind is another helpful strategy. For students, academic institutions are switching to digital modes of training, interaction, and assessment.

Anticipating situations of distress

As we advance deeper into the pandemic, mental health professionals also need to anticipate growing mental health problems. There can be psychological distress consequent to the diagnosis, guilt, worries about family and others as well as worries about recovering. For families separated from patients admitted with COVID-19 complications, the separation can be excruciatingly painful from a psychological viewpoint leading to worry, helplessness and frank depression. There will be situations when people have to face the unexpected instance of the death of a family member or be prepared for negative outcomes.

With the quickly growing knowledge of the impact of COVID-19, there are growing concerns about the possibility of direct neuropsychiatric consequences of COVID-19 infection, the interactions between psychotropic medications and those used to treat the infection, as well as drug interactions in patients with multi-morbidity. The modifications that might be required to deliver ECT and other physical methods of treatment in acutely symptomatic COVID-19 patients is yet another area that requires greater understanding.

Minding our own minds

One important group of professionals are health care professionals, who go through the same worries discussed earlier, but as the pandemic progresses, they will become more and more engaged in COVID-19 care. Worries about caring for such patients, adequacy of protection, taking infections to their families, long working hours, inadequate access to food, liquids and rest, and separation from families can lead to severe psychological distress among health professionals. Even for professions working in the community, the fears of risk and perceived or actual community aggression are realities that can cause tremendous anxiety. Listening to their anxieties, ensuring adequate protection, training health care professionals to provide appropriate care, supporting them and extending care to their families are important ways to help health professionals help others.

Adapting to changing knowledge and adopting newer approaches

Thus, we need to constantly update ourselves, as mental health specialists on the changing information concerning risk prevention, signs and symptoms, criteria and tests for diagnosis, safe management of the

psychiatrically ill patients with COVID-19 infection, in addition to providing psychological support to persons affected in a myriad of ways in the present situation.

Indeed COVID-19 has impacted the mental health of the entire community in one or another manner. This has created an unprecedented mental health challenge in the face of limited specialist resources. This also means that we need to think beyond conventional strategies. Frontline personnel need to be trained in simple and emerging evidence-based strategies of assessment and management. Presently, the remedial measures suggested for COVID-19 have only empirical evidence. We need to manage with what is available, but constantly update ourselves, almost daily. Simultaneously, we need to engage with non-psychiatric medical professionals to facilitate the psychiatric management of patients with COVID-19 infection and co-morbid physical illnesses. Digital-enabled learning and support for mental health issues need to be considered for all non-psychiatric medical professionals and frontline personnel. Online learning for are equally useful for regular updates for psychiatrists as well.

Despite the various disruptions in routine clinical practice, especially the regular outpatient services, this crisis has thrown up alternative and innovative approaches to offer psychosocial support and continuous care for patients with psychiatric problems or psychological distress. Online digital communication platforms have become a boon for follow-up contact with patients as well as to disseminate training to professionals working even in remote settings. The strengthened District Mental Health Program (DMHP) promises to deliver community care and ensure continuity of medications to prevent relapse.

Fresher challenges

Continuing challenges include the development of protocols for emergency care for suspected COVID-19 patients as well as positively diagnosed patients with appropriate precautions for the safety of the treating psychiatrist and other health personnel. The kind of modifications that might be required in the rapid tranquillisation of COVID-19 positive patients, modifications in interventions like ECT, TMS, tDCS require to be further examined, especially if this pandemic prolongs or lingers.

This guidance document brought out by the Department of Psychiatry at the National Institute of Mental Health and Neuro Sciences, India, attempt to address all these factors with the currently available knowledge to help psychiatrists, other mental health practitioners, non-psychiatric medical professionals, and other front-line personnel reach out in new and unconventional ways to provide support to troubled minds in the time of COVID-19.

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2

Note for Policy Makers

In the current situation, the policy makers are working on several policies related to prevention, treatment and containment of COVID-19. The pandemic has demonstrated beyond doubt that policy making is an acutely dynamic process during a crisis and the dissemination of information happens in real time. Advances in technology have made this task easier for policy makers. Despite the dynamic nature of policy making, the broad framework involves the established aspects of care during disasters and after.

One important aspect that the policy makers need to be “mindful” about is the mental health of people, certain areas that need attention currently are enumerated below:

For the community:

- The mental health professional associations and other related institutions should assemble experts with expertise in post-disaster psychological crisis intervention, to frame guidelines and provide technical guidance and emergency psychological crisis intervention under the coordination of the government's health authority
- Psychological crisis intervention should be integrated into the overall system of pandemic prevention and control, with the premise of reducing potential psychological damage caused by the pandemic and promoting social stability.
- Psychological crisis interventions for the high-risk population and mental health education for the general population must be planned and operationalized. Helplines are lifelines in such situations. A good control room with ready answers for FAQs is a must for running such helplines.

For persons with mental illness:

- The management and treatment of severe mental disorders should not be interrupted as far as possible and emergency care services must remain functional and be bolstered to handle additional influx of patients anticipated during the situation; the management and community care of at-home patients with severe mental disorders should be ensured through liaison existing community outreach programs, like the district mental health program (DMHP)

- The mentally ill patients may be highly susceptible, considering their poor awareness and poor general health condition. Institutions where severely mentally ill are admitted need to take measures such as:
 - i) provide adequate medical supplies
 - ii) educate these patients about basic preventive measures like hand sanitisation, maintaining physical distance
 - iii) reduce visitors to the hospital
 - iv) monitor temperature regularly
 - v) avoid group interactive activities
 - vi) create isolation wards for infected patients to be shifted

Alcohol policies:

- Substance use disorders treatment services need to continued uninterruptedly, there need to be community outreach programmes in which the mental health team can provide timely intervention to this group

Social concerns affecting mental health:

- Psychological intervention medical team can be formed as standalone team or be part of the general medical team attending to patients affected by the pandemic. The staff should consist of psychiatrists, with clinical psychologists and psychiatric nurses participating and the teams should formulate interventions plans separately for different groups eg:
 - i) Confirmed cases who are hospitalised with severe symptoms
 - ii) Suspected cases and close contacts of confirmed cases
 - iii) Patients with mild symptoms who are in home quarantine
 - iv) Health care personnel working with COVID 19 patients
 - v) General public
- Understand the mental health status of various groups of the society affected by the pandemic. Timely identification of high-risk groups especially those with prior mental health issues, are essential to prevent extreme events such as suicide and other impulsive behaviours

- Interventions should be based on a comprehensive assessment of risk factors leading to psychological issues, including poor mental health before a crisis, bereavement, injury to self or family members, life threatening circumstances, panic, separation from family and low household income

Training for Mental Health Professionals (MHPs):

- The mental health team also need to be aware of the various schemes or policies the government has made in order to alleviate public anxiety about the pandemic and its economic impact
- Telepsychiatry services should be emphasized upon and policies should be framed for the same. Online training programmes in telepsychiatry for the mental health professionals across the country need to be conducted, keeping in mind the framework that professional bodies may have laid down
- Online training sessions for the mental health professionals across the country should be conducted regarding their role in this time of pandemic COVID-19
 - Documentation of all these activities is of paramount importance. Research should be an essential component of all planned public mental health interventions. This will ensure a better understanding about risk factors, patterns of help seeking, treatment outcomes and costs of health care, specifically to the Indian context.

Conclusion

Planning and policy making are critical to ensure program effectiveness. It is essential to ensure that mental health is integrated into the broad framework of COVID-19 health care response to ensure adequate and appropriate care to the many thousands who are psychologically disturbed following the pandemic.

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PART A

COVID-19 & Mental Health in Community and General Hospital Settings

Common Presentations of Psychological Disturbances Post COVID-19

COVID-19 pandemic is turning out to be a major stressor for most of humanity. Never has such an event affected so many individuals all across the globe. The initial focus is necessarily on the physical consequences of the infection per se. However, there is recognition that the significant psychological consequences emerging out of this catastrophe need to be addressed. These could be arising out of direct consequences of infection or of restrictive measures imposed to curtail the spread of infection or the socio-economic impact of the pandemic.

Some features are unique to psychological presentations related to disasters. First, the overlapping of psychological problems is very common. For example, anxious people may also have depression and drink alcohol to reduce anxiety and depression. Second, most people presenting with psychological disturbances are 'normal people' who have been overwhelmed by an extraordinary stressor. Third, a vast majority of people presenting with disaster-related psychological disturbances recover spontaneously over time or with brief psychological inputs. Therefore, these presentations do not necessarily always amount to a psychiatric diagnosis. However, descriptions of psychological disturbances in particular domains help frontline personnel communicate and ensure appropriate selection of intervention. This section describes the common psychological presentations of people exposed to the pandemic.

Case Studies

Scenario 1

Mr. X is a 35 years old bank clerk. His bank is busy and mostly caters to clients from abroad. Recently after the first few cases of COVID-19 were reported, he became a bit worried about the possibility of him getting infected but since he has received gloves and masks he is quite comfortable and carries out his work. The moment he comes home, he changes his clothes and washes his hands as prescribed. But when he listens to the news on TV, he worries for some time as to whether he would infect his mother who is 90 years old and living with him. These thoughts last for 10-15 minutes, but he can dismiss them and carry on with his routines.

Discussion: Mr. X only has occasional anxious thoughts with NO IMPAIRMENT IN HIS DAILY FUNCTIONING. Occasional psychological symptoms without any major impact on his life is NORMAL in the current scenario. He just requires reassurance that his concerns are understandable and that the safety precautions he has been taking are fine enough.

Scenario 2

Mr. Y a 40-year-old colleague of Mr. X, however, has become very anxious as he worries that he may get infected. The bank authorities have provided him sufficient personal protection equipment like masks and gloves, which he knows is sufficient protection. But, he is anxious and tense most of the time, feels panicky sometimes, and at home, he becomes angry for trivial reasons, his sleep is disturbed and he feels the food doesn't taste good. He continuously watches WhatsApp forwards and keeps checking the news on COVID-19 on the internet. He manages to do his work, but often goes only because of his wife's insistence.

Discussion: This is a common scenario that can occur in infectious outbreaks when people experience heightened anxiety but are still managing to carry on. This could possibly represent adjustment disorder.

These are emotional disturbances that arise in the context of a significant life change or a stressful life

Symptoms:

- Sadness of mood, anxiety or worry, fear of contracting an infection (or a combination of all these).
- Persistent preoccupation with illness worry.
- Inability to cope (giving up) and some degree of dysfunction.
- Sleep and Appetite disturbances.
- In adolescents, these symptoms might be associated with oppositional behaviour or truancy.

In most, symptoms remit after the stressor is removed. Some of these individuals with on-going issues might progress to a depressive episode or an anxiety disorder.

Mr. Y may benefit from the suggestions in the Section on “Allaying Anxiety of the Worried Well” and also with the techniques suggested in “Simple Psychological strategies to deal with common mental health concerns in the wake of COVID-19 -19”. Medications are only required rarely and if so, a short course of anti-anxiety drugs may be considered as discussed in the section on “Common And Safe To Use Psychotropics In COVID-19 – A Practical Guide For Non-Psychiatrists”.

Scenario 3

Mrs. N is a housemaid. Her husband lost his job in the textile shop as it closed down, after which she has become sad and withdrawn. She has reduced interaction with others including her neighbours to whom she was close to. She has become very slow in her work and feels tired almost all the time. She has made a lot of mistakes in her cooking and reports that she cannot remember things. When asked, she reports that she has become very sad and worried after her husband's job loss; now she is the only earning member. There are debts and she feels that she will not be able to repay. Her husband has also become more irritable and is drinking more. She feels hopeless and thinks of dying but feels she needs to go on at least because of her two young kids.

Discussion:

There are economic and social costs of pandemic and resultant shutdowns such as economic downturns, job and livelihood losses which can lead to significant mental health problems.

The symptoms that Mrs. N is reporting are suggestive of depression which is described below.

Depressive disorders: Depression can be an independent depressive disorder precipitated by COVID-19 or secondary to COVID-19 related stress and other related problems.

Symptoms

- Low mood
- Decreased or loss of capacity to enjoy things
- Decreased energy
- Marked tiredness after even minimum effort (not due to any medical cause including COVID-19)
- Reduction in activity or feeling restless
- Lowered attention/ concentration- complaints of poor memory
- Loss of self-esteem and self-confidence
- Ideas that one is worthless, or has done something wrong
- Feeling of helplessness (no help will be available), and that there is no hope for the future.
- **Death wishes, suicidal thoughts or attempts**
- Sleep and appetite disturbances

When subjects have most symptoms and are severely dysfunctional or have persistent thoughts of death, self-harm, and suicide, immediate referral to a mental health specialist has to be initiated.

The major stressor that Mrs. N is facing is how to solve her financial problems in the wake of COVID-19. She may benefit from problem-solving techniques in the section on “Simple Psychological strategies to deal with common mental health concerns in the wake of COVID-19”. Medications may also be required because she seems to have fairly severe depression with death wishes. Please see the section on “Common And Safe To Use Psychotropics In COVID-19 – A Practical Guide For Non-Psychiatrists”.

Scenario 4

Mrs. N's husband V, after losing his job has been drinking and smoking heavily. He has started borrowing money to drink and often picks up fights with his wife and beats his children after returning home late at night. Mrs. N has never seen her husband like this in the ten years of marriage and feels that he needs help.

Discussion

An increase in the use of substances is likely to follow the immediate aftermath of any disaster including COVID-19. The commonest substance use in India is alcohol and tobacco.

Substance Use Disorder (Alcohol/tobacco)

Individuals may use substances to overcome social isolation, as a way of pleasure-seeking or to reduce anxiety and depression. The most common and expected pattern is that of increased use with some dysfunction.

Harmful use may also occur which means there is damage to health due to alcohol or tobacco. In this case, harmful effects could be physical (e.g: liver/lung related issues) or mental (e.g: worsening of mental health issues like anxiety or depression). Continued use can lead to dependence or addiction, which is characterized by a strong desire to drink/smoke, difficulties in controlling the use, persistence of drinking despite harmful consequences, a higher importance given to use of substance than to other activities, increased tolerance, and a physical withdrawal state.

Frontline personnel may refer **to Sections on Management of Alcohol Use Disorder and Tobacco Use Disorder for management strategies for these common problems.**

Other Mental health presentations for Consideration

Anxiety disorders: Many forms of anxiety disorders are expected in the aftermath of COVID-19. The emergence of these symptoms can occur even during lockdown periods due to fear/ anticipation of an infection.

Generalized anxiety disorder:

It is characterized by excessive worrying and persistent free-floating anxiety (not restricted to any particular environmental circumstances).

Symptoms:

- Persistent nervousness, tension
- Restlessness or feeling on edge
- Irritability
- Muscles feeling tense and tight
- Poor concentration
- Sleep disturbances
- Physical symptoms such as excessive sweating, feeling light-headed, palpitations, dizziness and epigastric discomfort.

Panic disorder

It is characterized by recurrent unexpected attacks of severe anxiety (panic attacks) that reach a peak within a few minutes and last for a few more minutes. There is associated fear of having more attacks (anticipatory anxiety) or avoidance of triggers of panic attacks. **Many of these patients might feel that they are about to die or lose control or go mad, and will end up in a medical emergency setting.**

Phobias

There are also anxiety disorders that might emerge in certain well-defined situations. Most commonly certain people can excessively develop fear of crowds in the wake of COVID-19 (due to fear of infection). In certain cases, if there is excessive avoidance of crowds to the point of being house-bound it is called agoraphobia. In all these phobic states, anxiety symptoms are triggered only in particular situations, and are accompanied by strong avoidance of the situations that trigger fears.

Anxiety disorders can be treated with cognitive behaviour therapy or medications (antidepressants and/or benzodiazepines)

Obsessive-compulsive disorder (OCD)

OCD is also expected to increase in the aftermath of COVID-19. To ensure that subjects reduce transmission of infection, they have been bombarded with public health messages to wash repeatedly to

reduce contamination. Subjects with OCD also experience repetitive thoughts that they are contaminated (contamination obsessions) and wash repeatedly to reduce anxiety (compulsions). The subjects often recognise that these thoughts are senseless but cannot control them. Due to fear of contracting COVID-19 through fomite transmission, such a persistent fear is likely to predispose to severe OCD in some otherwise vulnerable individuals, and in these cases, washing can persist for many hours in a day, with significant distress and dysfunction.

Severe mental illness: The emergence of severe mental illness as a direct consequence of the pandemic is unlikely. However, in individuals already suffering from such conditions, there could be a relapse or worsening.

Common symptoms

- Unexplained irritability/aggressive behaviour
- Talking or smiling to self
- Suspiciousness
- Hearing voices when nobody is around (hallucination)
- False beliefs (delusions)
- Poor self-care

(Refer to Section on Severe Mental Illness for further details)

Conclusion

Psychological presentations post-COVID-19 are common. Identification of common symptoms is helpful to ensure that early intervention is provided.

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Mental Health Assessment of COVID-19 Patient in Health Care & Community Settings

Introduction

COVID-19 pandemic has left in its wake an unprecedented challenge for mental health services across the world. With almost all affected, mental health service delivery to address the psychological consequences at the individual level has become near impossible. The existing health services is at its break point to control the spread and reduce mortality of COVID-19. Policy makers though aware of the mental health consequences are prioritizing capacity building of the health services and attempting to reduce the socio-economic hardships of communities following COVID-19. Front-line personnel including medical professionals however face the daunting task of dealing with the distress and trauma of individuals, families and communities on a daily basis. In addition, most have to deal with their own emotions and anxieties. The vast majority of frontline personnel have limited mental health competencies. This chapter is a frame-work for a simple mental health assessment by front-line personnel. The assessment may be integrated into the health care response or frontline response to the COVID-19 pandemic. A few theoretical concepts have been added to ensure a greater clarity for medical professionals.

Mental health issues noted in (biological) disaster zones including COVID-19 can be classified into an acute phase during the outbreak (approximately 2-6 months) and long-term phase after the control of the outbreak (>6 months). a) Acute Phase (during the outbreak) – Issues to be dealt with include immediate mental health impacts such as fear, denial, anxiety, insomnia, dissociative symptoms, depressive symptoms, suicidal ideas/attempts, substance withdrawal and relapse of pre-existing mental health problems. Besides, stress related issues of the health care providers and frontline personnel need to be addressed. b) Long-term phase (after the control of the outbreak) – Issues commonly presenting include grief, survivors guilt, depression, substance use, relapses of pre-existing mental illness, PTSD, and somatisation disorders. The major stressor during this period will be the direct and the indirect socio-economic impact of COVID-19. Along with the diagnosable mental health issues, the affected community also harbours a large number of the worried well. Mental health professionals should be aware of this phenomenon and restrain themselves from labelling this population with mental disorder

and treating them aggressively with medications (Please read the Section on Worried Well for more details). **In addition, all health care and frontline personnel should be aware that mental health issues post-covid-19 (or any disaster), represent emotional reactions of normal people in abnormal situations and for a majority these symptoms are self-limiting.**

The assessment of mental health issues in this section will focus on the psychological issues in the acute phase of the COVID-19 outbreak.

Case Finding

There are possibly three streams for case-detection/identification of mental health issues that need to be focussed in the acute phase of COVID-19.

1. Case Identification by front-line medical and non-medical personnel (including police officers, Members of Local Self Government, Community/health workers)
 - Points of entry into the country/state – Airport/Railway Station/State borders etc.
 - Home quarantine visits
 - Other Medical Emergencies
2. Case Identification by health care professionals (non-psychiatric)
 - Hospital quarantine/isolation
 - Routine out-patient assessment for other illness
3. Self-referral/Walk-ins to mental health professionals
4. Identification of frontline medical and non-medical personnel in need of help/support for stress management or burnout
5. Screening of the high-risk (vulnerable) population once Community Transmission is established

Who are the most Vulnerable?

- Children
- Senior citizens
- Pregnant women
- Persons with disability

- Homeless individuals, Poor social support & lower economic status
- Marginalised communities
- Life-threatening chronic medical conditions like cancer, chronic renal failure, liver diseases, asthma/COPD, immunocompromised patients
- History of severe mental illness and wandering mentally ill

How to assess?

There are many instruments for screening common mental disorders in disaster settings including PHQ-9 and GAD-7. A recently validated instrument for primary care attendees in India (**Screening Instrument of Clinical Schedule for Clinical Psychiatry Ver 2.3**) is being suggested for use. The instrument can be used by any frontline medical professional. The instrument has the advantage of being brief, hence saves time and reduces the risk of prolonged exposure. It can also be used for telemedicine consultation.

The screening questions are as follows:

- *Demographic Details*
- *Would you like to share your concerns?*
- *Please begin with these general enquiries!*

1	How is your sleep?	Normal / Disturbed
2	How is your appetite?	Normal / Disturbed
3	How is your interest in doing your daily work?	Normal / Disturbed

4	<i>In the past year, have you been drinking alcohol heavily or regularly?</i>	YES / NO	If YES to any, consider possibility of Alcohol Use Disorder (Refer to Section on Alcohol Use Disorder for details/management)
5	<i>In the past year, have you been having difficulty in falling asleep without alcohol?</i>	YES / NO	
6	<i>In the past year, have you been experiencing shaking of hands/body whenever you reduced the quantity of alcohol or stopped using it?</i>	YES / NO	
7	<i>Do you use Beedi/Cigarettes/Gutka or other tobacco products within one hour of getting up from bed in the early morning?</i>	YES / NO	If YES, consider possibility of Tobacco Use disorder (Refer to Section on Tobacco Use disorder for details/management)
8	<i>past few weeks, have you been experiencing sudden attack of fear or anxiety?</i>	YES / NO	If YES to any, consider possibility of Panic disorder(PD) (Refer to Section on “Simple Psychological techniques” and “Safe Psychotropics in COVID-19 for management)
9	<i>In the past few weeks, have these attacks been occurring spontaneously?</i>	YES / NO	
10	<i>In the past few months, have you been worrying excessively or getting anxious over infection or everyday problems or life circumstances?</i>	YES / NO	If YES to any, consider possibility of Generalized Anxiety Disorder (GAD) Refer to Section on “Simple Psychological techniques” and “Safe Psychotropics in COVID-19 for management)
11	<i>In the past few months, have you been finding it difficult to control or stop these worries?</i>	YES / NO	
<p><i>Note:</i> If ‘YES’ to any items from item 8 to 11 and they are primarily confined to or attributed to infection or fear of infection with Corona Virus, consider a possibility of either being “Worried Well” “Adjustment disorder” or “Acute Stress Reaction” and treat accordingly (see Section on simple psychological strategies/Worried Well). If symptoms are persistent and severe consider referral to a psychiatrist.</p>			
12	<i>In the past few weeks, have you been feeling tired all the time?</i>	YES / NO	If YES to any, consider possibility of Depressive disorder Refer to Section on “Simple Psychological techniques” and “Safe Psychotropics in COVID-19 for management)
13	<i>In the past few weeks, have you lost interest or pleasure in your regular daily activities?</i>	YES / NO	
14	<i>In the past few weeks, have you been feeling sad / depressed?</i>	YES / NO	
15	<i>ASK the caregiver: In the past few weeks, have you found him to be unusually suspicious of others or reporting of hearing of voices or seeing visions?</i>	YES / NO	If YES to any, consider possibility of Psychotic Disorder -Referral to Psychiatrist
16	<i>In the past few weeks, did he/she have suicidal, self-harm or aggressive behaviour?</i>	YES / NO	Referral to psychiatrist if required

*(Only the screening questions pertaining to the immediate impact of COVID-19 has been included here. Somatisation and post-traumatic stress disorders (more likely during the long-term impact phase) which is a part of the original instrument (**Clinical Schedule for Clinical Psychiatry Ver 2.3**) have been excluded to ensure brevity).*

In addition, if time permits it's a good practice to also ask questions pertaining to-

- * Pre-existing medical and mental illness
 - Past treatment history
 - Coping skills and strategies (if the test is positive)
 - Family history of mental illness.

The primary focus of mental health interventions in the immediate aftermath of COVID-19 is to ensure safety, reduce distress and secondary stressors, enhance coping skills and promote recovery. The general principles of first-step management by non-psychiatric medical professionals are described in the relevant sections in this document.

Referral

If symptoms are severe and persistent or if there is an immediate risk of harm to self or others or features of relapse of pre-existing severe mental illness, the patient may require referral for specialist mental health assessment.

In this case,

- Check person's/family's desire or consent for referral
- Ensure written referral letter
- Information-sharing with mental health provider
- Keeping a written record of referral (if possible).

Additional Aspects

Human Resources Development: The COVID-19 outbreak threatens to weaken the already fragile mental health across the country. Considering the mammoth nature of the pandemic and available meagre resources, there is an immediate to address a mental health gap in trained personnel who will be able to make simple mental health assessments. Given the additional restrictions and risk of exposure, mental health workshops need to be held online for elected representatives of local self-government,

nurses, auxiliary staff, DMHP team members, physicians, school and college teachers, ASHA workers, lay-volunteers in early identification and referral. Strengthening and involving existing community resources will not only help in capacity building but also ensure greater community participation.

Conclusion

Psychological issues following the pandemic are likely to be common. Most affected will require only brief assessments and immediate support. This will require all front-line personnel to be competent in simple psychological assessment of the affected in the community and treatment settings of COVID-19.

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Mental Health Issues of Home Quarantine

Quarantine is defined as the separation of people who have been exposed to a contagious disease to ascertain whether they become sick, thereby reducing the risk of them infecting others. **Isolation**, in contrast, is where a person diagnosed to have a contagious disease is separated from the general population to avoid transmission of the disease to healthy people.

Social distancing is another term that has acquired prominence recently in the context of the COVID-19 pandemic. **Social distancing** refers to certain measures taken to stop or slow down the spread of highly contagious diseases which include limiting large groups of people coming together, closing down public buildings such as schools, universities, canceling public events, etc. Presently governments across the world and in India are using a combination of these measures to stop the spread of the COVID-19 pandemic.

While considered essential under the present circumstances, quarantine can be a taxing and distressing experience for many. Based on studies from previous epidemics/ pandemics we shall identify some of the mental health concerns which people in quarantine face and propose solutions/remedial measures for the same. It must be acknowledged at the outset that we could not find any intervention studies which have examined the effectiveness of the various remedial measures. Rather, these measures are proposed based on the problems people in quarantine had faced in previous epidemics.

PROBLEM	WHAT CAN YOU DO AS A HEALTH CARE PROVIDER?
Duration of Quarantine	
Increasing the duration of quarantine can lead to increasing distress.	<ul style="list-style-type: none"> • You should always clearly inform the patient/public how many days the quarantine is expected to last. • Extensions of the quarantine period can be extremely frustrating. The rationale for the increase in the duration of quarantine to be explained, specifically ensuring that the anxieties of the patient have been addressed.
Inadequate and/or Confusing Information	
Multiple conflicting sources of information can lead to confusion and anxiety	<ul style="list-style-type: none"> • Provide as much information as possible in a simple and accessible manner. • Explaining the purpose of the quarantine increases the chance of people complying with the same. • Restrict news consumption to a reliable source – preferably a newspaper or a government website. • Discourage patients from continuously following a TV or online newsfeed as this can often lead to further fear and anxiety. • Warn patients regarding potential pieces of fake news circulating on social media and instant messaging apps such as WhatsApp • If possible, provide a point-of-contact number or helpline number in case a patient develops symptoms
Fear of Infection	
<p>Fears about their health or fears of infecting others.</p> <p>Even minor physical symptoms can be misinterpreted as having the disease</p>	<ul style="list-style-type: none"> • Provide adequate information about the disease. • Explain what symptoms are relatively innocuous. • Also, explain the danger signs patients need to watch out for. • Patients might have a lot of doubts and questions. Welcome them and answer them as best as time permits.

Frustration and Boredom	
Loss of routine, lack of social contact, sense of isolation from the rest of the world, etc. can produce significant distress	<ul style="list-style-type: none"> • Talking face-to-face on the phone or computer with family and friends can help • Encourage activation of patient's social network – remotely – over phone and computer • Ask patients to create and maintain a daily routine – this helps to create a sense of order even in changed circumstances • Encourage patients to engage in some activity – reading, music, gardening in own private plots, learning to cook something new, listening to music, learning something new, etc. • Encourage communication with other patients/people in a similar situation
Stigma	
Patients might face stigma from the community	<ul style="list-style-type: none"> • Again, explain the rationale for quarantining. • Public education
Finances	
Loss of work can lead to loss of pay, job loss, etc.	<ul style="list-style-type: none"> • To co-ordinate with a Social Worker or appropriate government agency • Make patients' aware of the various programs initiated by both Central and State Governments specifically following COVID-19
Unavailability of Supplies	
Inability to procure daily supplies can lead to anxiety	<ul style="list-style-type: none"> • With the help of Social Worker or appropriate government agency - coordination for provision of supplies. This should ideally occur in advance. • Ensure patients have enough supplies for their basic needs.

General Advice for Coping	
Altruism is better than compulsion	<ul style="list-style-type: none"> • Reinforcing the message that quarantine is helping to keep others safe, including those particularly vulnerable • Communicate to the quarantined patients that health authorities are genuinely grateful to them
Maintain a healthy lifestyle	<ul style="list-style-type: none"> • Get enough sleep, eat well and exercise/yoga • Avoid using alcohol or drugs to cope • Maintain a sense of hope and positive thinking • To write down things you are grateful for or that are going well
High prevalence of psychological distress in quarantined healthcare workers itself	<ul style="list-style-type: none"> • Address feelings of guilt that their absence from work increases the work for colleagues • Help them get support from hospital administration in facilitating their return to work
When to consult mental health professionals?	<ul style="list-style-type: none"> • Experiencing symptoms of extreme stress, undue anxiety, depression, ongoing trouble sleeping, inability to carry out daily routines, or an increase in alcohol or drug use

Counselling for home quarantined using telephone helplines and telepsychiatry

For subjects in home quarantine, supportive counselling can be provided by telephone helplines and telepsychiatry platforms. These have an important advantage over face to face counselling, as they provide specialist services, which can be accessed from the convenience of peoples' homes without endangering the health personnel and the larger community.

Conclusion

Quarantine, isolation and social distancing in the times of a raging pandemic can be psychologically distressing for many people. However, there are simple and effective actions that you can take as a health care provider. Key among them is providing information. As a health care provider, you would be seen as a reliable and trustworthy source of information. Explain the rationale of quarantining and social distancing. Promote reliable sources of information. Inform patients what symptoms to watch out for and what symptoms not to worry about. Encourage people to remain in touch with each other over virtual means. Address stigma. Finally, if you come across anyone having significant distress have them referred to a mental health professional.

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Mental Health Issues in Hospital Quarantine/Isolation

Introduction

Quarantine is defined as restricting the movement of normal individuals who may have been exposed to infected people. The quarantine can also help limit the spread of communicable diseases like COVID-19. The quarantine can be done at home, hospital or community-based facilities. In contrast, isolation is the separation of people affected with illness/contagious disease from people who are not affected. In this chapter, we discuss mental health issues related to 'Hospital Quarantine and Isolation'.

Mental health issues during Hospital Quarantine

Quarantine is done for the larger interest of the community by curtailing the right of the individual. Quarantine can lead to physical, psychological, emotional and financial stress due to fear of contracting the illness, boredom, loneliness, loss of personal freedom, a new set of daily routine and lack of social togetherness. The mental health issues following the hospital quarantine period can be 1. New-onset mental health problems 2. Exacerbation of pre-existing mental health problems

New-onset mental health problems:

These include-

- i. Health-related anxiety:* By far this would be the most common condition that could arise during isolation. This can occur due to uncertainty of outcome, fear of turning positive on testing, and stigma. It can range from mild to severe. In severe cases, it can lead to panic attacks.
- ii. Depression and Anxiety:* Fear of contracting a severe and possibly life-threatening illness, isolation from the family, helplessness and guilt associated with behaviours which led to infection, is a source of infection to family and public, and not being able to perform duties, etc. can lead to depression and anxiety. Some people in quarantine may even harbour suicidal thoughts.

- iii. *Low mood, fear, nervousness, irritability, anger, frustration, boredom, emotional exhaustion, feeling stressed, numbness, and insomnia:* Many quarantined persons may experience these problems which may or may not amount to a diagnosable mental health disorder, nonetheless, they need to be identified and addressed.
- iv. *Substance Withdrawal:* Withdrawal from substances can occur due to non-availability and sudden stoppage from the substances especially alcohol.
- v. *End-of-life crisis:* Thoughts of whether they have performed their duties adequately, fear of death, apprehension towards the family's reaction to one's death, guilt, etc. may haunt the person.
- vi. *Acute stress reaction and post-traumatic stress disorder (PTSD):* Hospital quarantine can be a significant traumatic event resulting in acute stress disorder. People exposed to hospital quarantine have a higher risk of later development of PTSD.
- vii. *Resilience:* A few may also report positive feelings. Resilience is known to occur not only in the persons infected but also in the community. Community's resilience help us in bouncing back from difficult times.

b) Exacerbation of pre-existing psychiatric conditions: Any pre-existing psychiatric conditions like psychosis, mood disorders, anxiety spectrum disorders, sleep disorders, etc can exacerbate during the quarantine. This can happen due to three reasons-

1. Illness related
2. Stopping ongoing psychotropic medications for reasons such as non-disclosure of mental illness, non-availability of medications, drug interactions and lack of access to mental health care providers.
3. Drug adverse effects: Drugs currently used to treat COVID-19 are known to cause psychiatric symptoms either in the form of emergence of new symptoms or exacerbation of existing symptoms. Some of the commonly reported psychiatric symptoms associated with the use of chloroquine, steroids, and antiretrovirals are psychosis, delirium, mood disorders, and cognitive disturbances.

Management

- a) Validation– Acknowledge the feeling of boredom, loneliness, feeling sad, stressed, confused, loss of personal freedom and guilt
- b) Keep quarantine as short as possible based on the knowledge of the incubation period. Avoid overcautious approach and avoid extension of quarantine. Stick to the recommended period. Extension of the quarantine period may lead to frustration and demoralisation.

- c) Provide as much information as possible about the infection and rationale behind the quarantine. During quarantine, people may tend to misinterpret all physical symptoms as indicative of infection which may then lead to excessive health anxiety and other psychological issues. Therefore, the quarantined people must have an accurate and unambiguous information about the nature of the problem. Health professionals involved in caring for them may have to periodically reassure them.
- d) Avoid speculation and break the chain of rumour during the hospital quarantine.
- e) Screen for pre-existing medical, psychiatric and substance use disorder conditions. People with pre-existing mental health problems may be more vulnerable than others to develop psychological problems. Ensure treatment and continuity of care with the hospital for pre-existing medical and psychiatric conditions.
- f) Provide facilities to the individual to remain physically active, continue or develop hobbies to be mentally active and ensure a balanced diet to keep themselves fit and calm.
- g) Provide access to family and friends through mobile phones. The quarantined people need to maintain contact with others and have access to social networks to avoid boredom and loneliness.
- h) Teach coping strategies to people who have psychological issues.
- i) Ensure adequate supply of basic needs (food, water, medicines, etc.) and reinforce a sense of altruism.
- j) Protect an individual's safety and privacy.
- k) Use psychotropics sparingly as most people may do well with simple measures described above.

Counselling for patients with COVID-19 in hospital

The telepsychiatry platform may be considered appropriate for counselling those with COVID-19 who are in hospital quarantine. This will reduce the risk of contracting infection for health care personnel and prevent wastage of valuable personal protection equipment.

Conclusion

Understanding the mental health needs of people in hospital quarantine is important as its likely that many are likely to develop psychological issues that need early intervention.

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COVID-19 Pandemic and Mental Health Issues in Children and Adolescents

Children

All of us, children included, are trying to make sense of the overwhelming uncertainty in front of us due to the global pandemic caused by the Coronavirus (COVID-19). Children and adolescents have already been at home – with schools being shut early – for over three weeks in several parts of India. Their regular schedules have been disrupted, with no clear idea of when they will be restored. Children are confined to the home and in some situations may be separated from the parent (s) because they are quarantined, or their parent (s) are quarantined. Children may experience a range of psychological issues such as anxiety, fear, worry, depression, difficulty sleeping, and loss of appetite. Quarantine and isolation may also lead to acute stress disorder, PTSD and grief in many children.

Children with various physical and mental disabilities – and especially mental health disorders – are more vulnerable during this trying time. The kind of therapeutic inputs that children with various disabilities may have been receiving may not be readily available now – various therapies, special schooling, psychotropic medication, etc. Social isolation may worsen the living situation of children in abusive environments as well as children with special needs. Economic hardships and the potential worsening of parental physical or psychological illnesses, including substance use disorders, may take a toll on all children. Children may even go through loss and grief at this time. Given this dire picture, what advice can health professionals give parents?

How can we help children cope in this difficult situation?

This guide is especially for parents of children.

1. Children are constantly exposed to information related to the pandemic in newspapers, TV news channels and social media. They may understandably have realistic and some exaggerated fears. They must be provided unambiguous and clear information regarding the pandemic in an age-appropriate language. The aim is to reassure them and reduce exaggerated threat perception. Children who wish to have access to information may be encouraged to look at reliable websites

such as the World Health Organisation (WHO), Centers for Disease Control (CDC) or the Ministry of Health and Family Welfare (MoHFW), Government of India.

2. Answer your children's queries but figure out a way of striking a balance. Too much information can cause panic and severe anxiety. Take your cues from the child.
3. Make sure that children are not excessively exposed to pandemic related information. Limit media exposure, especially if there is fear-mongering or exposure to alarming content. If the child hears or sees something upsetting, please put it in context for them. Avoid discussing the topic frequently in front of children.
4. Answer questions honestly. Don't dismiss their worries. Don't make false promises. For instance by saying, “what is there to worry?” or “nothing will happen”. Talk about what the family will do should anyone fall ill.
5. Figure a new routine for the household and the child. This routine must include academic work, chores, play, interaction with peers and relatives over the phone or using other forms of technology as well as family time. Have a set time for meals and bedtime. It would be wonderful to also have some indoor exercise as part of this routine – for instance, yoga, stretches, skipping, etc. However, this routine need not be set in stone. The routine must be made collaboratively, including changes over time.
6. Family time can include games that parents may not have had time to play thus far. This is a good opportunity to reconnect with the family playing board games, cards, carrom, antakshari, etc.
7. Model calmness to the extent possible. You are their anxiety barometer. Don't transfer your anxiety on to children. Seek help if you are suffering from emotional issues.
8. Watch out for repetitive reassurance-seeking – a sign of distress in children. If there is significant distress, consider an evaluation by a mental health professional. Seek out the options available in your locality, or online.
9. If the child already has a mental illness, please reach out to your doctor via phone or email.
10. Use medicines sparingly and judiciously. However, continue any psychotropic medication the child is already prescribed at the prescribed dose unless otherwise recommended by your doctor. Please do not discontinue the medication abruptly.
11. Please find telemedicine resources, if possible, to start or continue psychotherapy or other therapies including speech therapy, special education
12. Find a way to take care of yourself – medically as well as psychologically. You are your family biggest pillar of support. “Me Time” is recommended. Share the burden of parenting, to the extent possible.

Given that children are likely to be bored and restless, given below are some resources for them to look through. It may be both educational and interesting. (Positive Parenting during the COVID-19 Pandemic with your Children. <https://www.stmarysdubai.com/wp-content/uploads/2020/03/Positive-Parenting-during-the-COVID-19-Pandemic-with-your-Children-1.pdf>).

Adolescents

Mental health issues discussed for children apply to most adolescents, hence many of the suggestions described above remain applicable to adolescents. But there are some age-specific issues, which need to be taken into consideration by medical professionals and other frontline personnel while assessing adolescents.

General Considerations

Parents have to be aware of the normative developmental changes that occur during adolescence. Adolescents will have a better understanding of the COVID-19 related issues compared to children. Parents should engage in an open, non-judgemental communication with their adolescents rather than having assumptions like “you don't know anything”, “you will have to learn everything from parents” etc. Coping and Problem-solving skills of adolescents are better developed compared to children.

Adolescents and COVID-19

- Adolescents are likely to have preoccupation with themselves, a sense of insecurity, mostly identify with their peer group and are often prone to risk-taking behaviours.
- Some adolescents may have feelings of being invincible and may take risks by not maintaining personal hygiene and social distancing.
- Others may be withdrawn, afraid of leaving home and worried about their health as well as that of their family members.
- They may also lose regular contact with friends because schools, colleges, and universities are closed. This may lead to feelings of boredom, loneliness, sadness, aggression, and irritability towards siblings and other family members.
- Few may start using Tobacco, Cannabis, Alcohol, etc. to handle their boredom, loneliness and emotional changes.
- The uncertainty about examinations and its impact on their career choices can exacerbate the stress due to the prevailing COVID-19 Pandemic.

What parents of adolescent kids need to do?

1. Parents should keenly observe for any emotional or behavioral changes in their adolescent kids. Sometimes these changes can be subtle.
2. Parents can play a vital role in ensuring that their adolescents maintain their mental health by listening to them, acknowledging their difficulties, clarifying their doubts, reassuring them, generating hope and providing emotional support in resolving issues
3. Excessive use of mobile and other devices can result in behavioural addiction. Parents have to negotiate with adolescents to ensure the limited use of gadgets and to discuss the inclusion of healthy non-gadget activities as a part of the daily routine.
4. Urgent professional help has to be sought if the behavioural and/or emotional changes last for more than two weeks if the changes are severe if there is a significant loss of sleep or appetite, if there is physical aggression towards others if the adolescent expresses death wishes or suicidal ideas or hopelessness or attempts self-harm and in case of any use of alcohol or other substances.

Conclusion

COVID-19 is too big a problem for a health professional or a parent to solve on their own. Since children and adolescents are at home with their parents, the following points are for parents. This advice can be dispensed to parents by health care professionals. For parents who are struggling with their daily needs, expecting them to structure their child's schedule may be impractical. Nonetheless, some of these principles may be used, where possible. Social distancing itself may be difficult given people's living situations. Parents' anxieties may have to be addressed. This is a difficult time for all with no easy answers but some of these simple strategies may help.

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COVID-19 and Mental Health in Older Adults

Older adults are consistently reported to be more vulnerable to COVID-19. According to the Centre for disease control and Prevention (CDC), older adults with COVID-19 are more likely to be hospitalized (31-59%) and die of it (4-11%). This risk is much higher in older adults above the age of 85 years.

What makes older adults at a higher risk for mental health issues during the COVID-19 pandemic?

- Awareness that older adults have a higher risk for severe respiratory problems due to COVID-19 including the risk for hospitalization, the requirement of ventilatory support and a high mortality rate contributes to significant stress, anxiety, and other related mental health problems.
- Older adults are likely to experience more stress and difficulty in accessing essential services due to the restrictions enforced to maintain the social distancing to prevent the spread of COVID-19
- Older adults are less likely to have social contact using technology and social media which are useful for maintaining social contact despite the need for physical distancing.
- Social isolation is one of the important risk factors for mental health problems like depression and anxiety in older adults
- Older adults have higher chances of worsening of pre-existing medical and psychiatric illnesses because of difficulty in ensuring regular medication and routine health care due to COVID-19 related restrictions.

Mental health issues

- Sleeplessness, feeling anxious, boredom, panic attacks, nightmares, feeling of emptiness, fear of contracting COVID-19, fear of spreading the infection to others, health anxiety, feeling of imprisonment, anxiety related to uncertainty about future, anxiety about death and dying in

unnatural circumstances without access to other relatives are some of the psychological issues that can occur in older adults.

- Some of them may develop depression, anxiety disorders, hypochondriasis, post-traumatic stress disorder, substance abuse/withdrawal and related psychiatric disorders in these stressful situations.

Mental health issues in older adults with pre-existing mental illness

- The common mental illnesses in older adults are depression, delirium, and dementia. Older adults with a prior history of depression are at risk of relapse or worsening of depressive symptoms. This could be due to psychological stress, poor coping as well as difficulty in ensuring adherence to the routine treatment.
- Older adults are also at a higher risk of delirium or recurrence of delirium due to restrictions in mobility and decompensation of medical and psychological disorders.
- In older adults with pre-existing cognitive impairment, there are few unique challenges. Usually, older adults with cognitive impairment have behavioural problems. They have challenges in understanding the COVID-19 pandemic related preventive measures and related information. It is difficult for caregivers to restrict mobility in older adults with dementia. It is also difficult for older adults with dementia to be compliant with frequent hand cleaning, social distancing and use of the protective facial mask.

Unique scenario of Oldage homes and living alone

- Those living in oldage homes/residential set-ups or living alone are the most vulnerable population during this pandemic in terms of mental health. Oldage homes in India, which already have constraints in terms of staff and space will have challenges in implementing preventive measures.
- Mental health issues that can be expected in these settings are sleep disturbances, fear of contracting the virus, worry, and apprehension about the future and paranoia of other inmates.

Evaluation and management

- In the current scenario, people are advised to defer visiting hospitals/clinics for their scheduled appointment for minor issues. In this situation, there is a need for using other modes of communication with doctors and other health care professionals.
- The first step is increasing the awareness about mental health issues among the older adults and their family members via social media (Online programs, website, online forum, group email or messages)

- Utilising community health workers or trained social workers for the screening of older adults at oldage homes/assisted living facilities for mental health issues. This can be done through old age home staff using technology assistance to avoid exposure to the infection.
- To establish a helpline through which any older adult or family member can approach for minor mental health issues. The helpline can be managed by a specialist psychiatrist on rotation. Through this medium, there is a basic assessment of problems followed by a brief psychological intervention.
- Telemedicine can be used for consultations requiring more detailed psychiatric evaluation and prescription of medication (See Section on Telepsychiatry).
- Those with psychiatric emergencies like suicidal risk, severe agitation, catatonia, refusal of food or delirium would require personal evaluation in emergency settings with appropriate precautions related to COVID-19

Psychological interventions for mental health issues related to COVID-19

- Similar to other situations related to any disaster, most of the older adults are likely to have sub-syndromal mental health issues like anxiety and depressive symptoms related to the threat of COVID-19.
- This will require brief psychological and psychosocial intervention that can be delivered by any health care personnel, volunteers, etc with some guidance and training from mental health professionals (See Section on Simple Psychological Interventions).
- Older adults need reassurance that most of the mental health issues experienced in these situations are normal reactions to abnormal stress.
- They should also get appropriate information and clarification about various myths and false messages that are being spread through multiple unreliable sources.
- Guidance about maintaining a routine, physical exercise, Yoga, meditation, healthy diet, mental stimulation through home-based activities with appropriate safety precautions is essential.
- Brief relaxation exercises and supportive therapy can be done for those having severe psychological distress.
- Treatment by mental health professionals including medications and other interventions may be required for those with severe mental health disorders and emergencies.

Conclusion

It is necessary to bear in mind that older adults are more vulnerable both physically and psychologically to the COVID-19 pandemic. All stakeholders must work together to ensure their health and well-being.

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Addressing Mental Health Issues among Pregnant and Postpartum Women during COVID-19

Introduction

Positive mental health is particularly important during pregnancy and postpartum. Currently, available literature has consistently shown an association between depression, anxiety during pregnancy and small for gestational age, low birth weight, and preterm delivery. During the postpartum period around 10-15% of women experience depression and anxiety. It has also been observed that postpartum depression is one of the reasons for poor bonding with their babies. In the current period of COVID-19 pandemic, even routine visits to health care facilities for antenatal care and infant immunization are likely to create a great sense of anxiety in mothers about their health and that of their unborn or newborn baby. It is thus a matter of priority to address these concerns to ensure positive mental health and early interventions for perinatal mental health issues.

Symptoms of anxiety and psychological distress during the perinatal period related to COVID-19

- Excessive worry about getting the infection even when all precautions are being taken and even after reassurance
- Lack of sleep because of anxiety
- Focusing excessively on social media messages about COVID-19
- Getting anxious about infection control procedures in family members
- Excessive worrying about missing work
- Feeling sad and angry because of isolation and not being able to meet family and friends
- Feeling nervous, anxious, or on edge
- Not being able to stop or control worrying

- Trouble relaxing
- Being so restless that it's hard to sit still
- Becoming easily annoyed or irritable
- Feeling afraid as if something awful might happen

Pregnant women and COVID-19 related worries

1. How can I prevent myself from getting the infection?
2. What will be the impact of the virus on my unborn baby?
3. Will my mother or husband be allowed to stay with me during delivery and later?
4. Will transportation be available if I go into labor?
5. Is it safe to go to the hospital for antenatal check-ups or scans?
6. Is excessive use of hand sanitizer safe during pregnancy?
7. Should I get tested for COVID-19?

Postpartum women and COVID-19 related anxiety and psychological distress

1. What if I get an infection, will I transmit it to my baby?
2. Is it safe to breast feed my baby?
3. Will my baby fall ill?
4. Is it safe to immunize my child?

General recommendation for pregnant women

- Remember that your mental health is as important as physical health for the adequate growth and development of your baby.
- Minimize watching, reading or listening to news about COVID-19 that causes you to feel anxious or distressed.
- Anxiety about the COVID-19 infection is normal at this time of pandemic and lockdown. But your mental health is important for the growth and development of your baby.
- Seek information only from trusted sources so that you can take practical steps to prepare your plans and protect yourself and your loved ones.

- Find opportunities to amplify positive and hopeful stories and positive images of local people who have experienced COVID-19. E.g. Stories of women who have had babies, persons who have recovered or who have supported a loved one and are willing to share their experience.
- Practice hand hygiene techniques frequently at home
- Exposure to COVID-19 can be prevented by following your doctor's advice. Most doctors are now discouraging women to come to the hospital and prefer advice over the phone. They will tell you how to get your scan and blood test done.
- Physical health during pregnancy can be sustained by maintaining an adequate diet which includes green leafy vegetables, protein, and carbohydrates.
- Continue Iron and Folic acid tablets prescribed by your doctor.
- Keep your contact only with persons near to you and who practice infection control.
- It is good to stay at your home and involve in pleasurable activities.
- Ask your doctor regarding sanitation practices at home.
- If you are concerned about your pregnancy, contact your ASHA (Mithanin/ JPHN) or ANM or obstetrician over the phone.
- If you are nearing your delivery, then keep your “Mother Card”, emergency ambulance number ready.
- Please follow the instructions provided by your doctor regarding hospital visits.
- In case your doctor advises you to visit the hospital, then try not to touch any surface in the hospital.

Perinatal mental health of pregnant women under psychiatric care

A pregnant mother who has a preexisting mental health problem and is already under psychiatric care needs to take all the precautions as mentioned above. Besides, the following steps might help in reducing your concerns about your psychiatric condition as well as protect against exposure to the COVID-19 virus.

- Avoid hospital visits. If required, you can call your psychiatrist. In India, you can contact the NIMHANS Perinatal Mental Health Helpline Number (8105711277) or any local telephone helpline for mental health issues.
- Medications prescribed by the psychiatrist can be refilled at the local hospital or pharmacy.

- Not to stop psychiatric medications at any point in time without advice from your psychiatrist.
- If you are in the 3rd Trimester or nearing for your delivery, please contact your doctor/obstetrician and inform regarding the expected date of delivery.
- Do not stop your medication during the postpartum period without the advice of your psychiatrist. Your medications might need to be optimized during the postpartum period. You can call the helpline if you have any concerns.

Perinatal mental health of postpartum women under psychiatric care

Postpartum mothers who breastfeed their infants need to follow all the steps mentioned in the section on pregnant women. In addition to the above, the following steps might help you.

- Based on the available data, human breast milk is negative for the COVID-19 virus even if the mother had COVID-19.
- The benefit of breastfeeding outweighs any potential risk of transmission of the virus through breast milk
- For women wishing to breastfeed, the following precautions should be taken to limit viral spread to the baby:
 - Hand washing before touching the baby, breast pump or bottles
 - Try and avoid coughing or sneezing on your baby while feeding at the breast
 - Consider wearing a face mask while breastfeeding, if available
 - Follow recommendations for pump cleaning after each use
 - Consider asking someone who is well to feed expressed milk to the baby
- Call the NIMHANS Perinatal Mental Health Helpline Number (8105711277) or any local telephone helpline for mental health issues if you have any concerns about your mental health.
- Regarding the immunization of your infant, please talk to your pediatrician.

Role of partner and family

- It is important to support the pregnant and postpartum mothers during the COVID-19 pandemic and lockdown.
- Partner and family need to follow the social distancing as prescribed by the authority.

- Prepare yourself for an emergency hospital visit in case of emergency or delivery.
- It is important to keep the good mental health of you to help the mother in this situation.
- In case you need help regarding your mental health, you can visit our website E CONSULT @ COVID-19 available at http://vlc.nimhans.ac.in/?page_id=4045 or consult any psychiatrist accessible to you.
- In case you need help regarding the mental health of your pregnant or postpartum partner, visit our website <https://www.perinatalpsynimhans.org/>

Conclusion

Addressing perinatal mental health issues is critically important for both the mother and the baby. Given the likelihood that mothers during the COVID-19 outbreak are likely to experience heightened distress, identifying and addressing these should be a high priority for health care providers.

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Challenges Faced by People with Disability in a Pandemic

Pandemics, such as the current COVID 19 pandemic, fundamentally disrupt human existence, and affect persons with disability (PwD) disproportionately. Some PwDs might require help for basic activities of daily living (ADL) while others may be more independent but find it difficult to navigate new rules that a pandemic response demands. Their family caregivers also face more challenging situations – from the breakdown of a usual routine to increased facetime with their ward (due to lack of other activities to engage them) that a quarantine-like situation imposes on the family; worries about the financial and healthcare ramifications of any one of the family falling ill may be prominent concerns. Interpersonal issues between family members may experience a rise, and this may be complicated by the unavailability of a number of routine services to address them. In addition, essential caregivers may be unavailable to people with high support needs due to quarantine conditions.

PwDs are just as vulnerable to anxiety, apprehensions, sadness and grief, irritability, sleep disturbances and withdrawal as their non-disabled peers. These are common reactions, but they may be qualitatively or quantitatively different, depending on the type of disability and age of the PwD. Persons with intellectual and developmental disabilities, especially, may require assistance in understanding the current crisis and consequent disruptions to their routine lives. They will also require assistance in adhering to recommended hygiene measures. Caregivers may need to assist them in these and other activities. Whilst doing so, one should not compromise on hygiene measures themselves. Caregivers may find it difficult to effectively manage boredom experienced by PwDs; addressing their own anxieties while reassuring their loved ones may be more challenging.

Presentation of symptoms heralding the onset of a mental health condition may be different in those with developmental disorders. Sudden changes in sleep and appetite along with acute behavioural changes may be early warning signs for a worsening of a pre-existing condition, or the onset of a mental health disorder to be diagnosed. Persons with psychiatric disabilities, including those with anxiety and depressive disorders, may experience higher levels of stress and even panic during the situation.

PwDs need to deal with certain apprehensions and fears that a mental health professional (MHP) must be aware of. The thoughts and feelings unique to PwDs include

- a. Thoughts of being a burden
- b. Fear about their caregiver falling sick
- c. Fear that they may be marginalized further during rationing of supplies or care
- d. Sadness regarding feeling dependent on caregivers especially the elderly
- e. Thoughts of being worthless, as people do not look up to them or expect them to contribute during difficult times
- f. Thoughts of being left out of decision-making process
- g. Worries about financial security
- h. Worries about job security when things start to resume

Similar concerns may be expressed by caregivers, especially when there are fewer members to share care-giving duties with. Stigma (internal and external) may be exaggerated during pandemics. Other concerns may include limitations to information or healthcare access, professional caregiving access, and logistic issues. These concerns are enhanced when the prospect of quarantining looms, especially when such supports may not be available in general quarantine facilities.

Some issues which disproportionately affect PwDs are,

- Access to welfare benefits and emergency support (financial and non-financial)
- Access to essential supplies, and basic requirements such as potable water, food and sanitation
- Access for non-emergency healthcare needs such as blood transfusion among persons with blood disorders, review of medicine side effects/ symptom status

MHPs need to adapt to the available resources, needs and contexts, and use technology deftly in times of disasters. Service provision at such times must aim to ensure and maintain best possible health outcomes / status for which MHPs must take proactive steps; more so for PwDs.

Such steps can be categorized into 3 broad domains:

1. Continued access to healthcare and basic needs

- Ensuring delivery of necessary items to households or places where PwDs reside, especially where there are PwDs with high support needs, should form an important part of the disaster response, and mental health professionals should prioritise facilitating access to these with the help of various NGO or governmental organisations.

- Ensuring facilities available to a person with high support needs in the event of them falling ill, or their caregiver being quarantined due to COVID 19 are continued as much as possible. In such a situation, health professionals and frontline personnel may play crucial roles in guiding decision making and delivering interventions.
- Telemedicine may allow us to overcome access barriers during quarantine situations. Innovative service delivery ought to include provision of psychosocial interventions alongside prescriptions; strategies for home-based rehabilitation must be included.

2. Continued access and uptake of welfare provisions and or emergency supports

- Government agencies can aid the situation by pro-actively preserving and delivering benefits access in such a situation, such as advance payments of pensions and ensuring quick access to services. Continued service delivery may have beneficial impacts on reduction of post disaster morbidity and disability.
- Re-evaluate certification processes for PwDs to allow for more online or video-based assessments, in order to preserve access. Systems should adapt to include measures for ad hoc / temporary certifications so as to ensure adequate financial and non-financial supports. This is in consonance with sections 8 and 24 of RPWD act.
- Carer health is also imperative and should be proactively monitored by mental health professionals.

3. Access to information regarding health promotion / maintenance during a disaster

Accessibility during service provision must be ensured for PwDs with different needs via accessible electronic formats of information, accessible communication, and structural access. This can be addressed at multiple levels - MHPs can aid in disseminating safety and promotive health knowledge; specifically, they can help in tailoring information to PwDs' functional limitations.

How a psychosocial support provider (counsellor) may help:

1. Use techniques of active listening (in accessible formats, particularly for those with hearing impairment) to convey a message that he/she is interested in understanding the distress of the person
2. Acknowledge the distress and show empathy
3. Provide general mental health advice, which is common to persons without disabilities – these may be derived from programmes which are being run for the general public
4. Provide specific advice which is unique to the PwD in terms of his/her disability as well as context

Refer them to support groups if they exist and are accessible during the lockdown period, particularly groups which have online or phone-based supports were available.

Some recommendations to the system in terms of different disabilities are listed below,

Recommendation to the system:

1. General to all disabilities:
 - a. All plans and programmes should be inclusive, with specific attention to the needs of and challenges faced by PwD. E.g.,
 - i. Public communication and education materials should be accessible to PwD with different challenges
 - ii. Quarantine facilities should be cognizant about challenges faced by PwD
 - iii. Helplines should be accessible to persons with different disabilities
2. Specific:
 - a. Developmental disabilities:
 - i. Specific efforts should be taken to communicate the significance of the pandemic and measures to prevent infection
 - ii. Specific activities should be planned to address boredom and disruption in daily routines
 - iii. Mental healthcare helplines which address specific needs of PwDD/PwID may be set up
 - b. Psychosocial disabilities (disability due to mental illness):
 - i. Distress, anxiety and panic is likely to be higher in them. Helplines to address these should be set up
 - ii. Measures should be taken to ensure continuity of medications in those who need them
 - c. Hearing impairment:
 - i. Masks make routine communication difficult. Alternatives including transparent masks should be considered by people communicating with PwHI

- ii. Face-to-face communication may be reduced due to risk of infection – text-based communication should be preferred
- iii. All mass communication should be made accessible for PwHI
- d. Visual impairment:
 - i. As they may rely a lot on touch-based activities, measures of hand-hygiene should be facilitated specifically for them
 - ii. Specific stress should be given to sanitize assistive devices used by them
 - iii. The onus of social distancing should be on others, as PwVI cannot do that on his/her own
- e. Locomotor impairment:
 - i. Accessible hand-hygiene facilities should be provided: accessible wash basins and/or liberal supply of hand-sanitizers
 - ii. Specific attentions should be given to sanitize assistive devices including canes, crutches, wheelchairs, handrails, particularly in public spaces
- f. Blood disorders and neurological disorders: Extra support should be given by caregivers in accessing health services. Specific measures to prevent infection with coronavirus should be taken, as they may be more at-risk population.

Discrimination of PwDs in treatment protocols of COVID-19

One area in which requires more focus is the scrutinization of disaster protocols which may be discriminatory to persons with disability. PwDs have a higher chance of experiencing severe respiratory illness and suffering from additional co-morbidities. Emergency operation guidelines use for COVID-19 by certain states of the USA have designated persons with severe intellectual disability to be poor candidates for ventilatory support. The one used by the State of Alabama has emphasized that decisions should be guided by premorbid function and expected level of recovery rather than by diagnosis. This demonstrates the needs for mental health professionals to ensure that protocols in India preserve and protect the right of PwDs in line with international conventions and national laws.

Conclusion

PwDs may face multiple challenges during the COVID-19 pandemic. Policy makers and health care professionals should ensure continued delivery of vital services, help preserve access to benefits, and guide advocacy to preserve the rights of PwDs.

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Psychological Issues of Frontline Personnel Combating COVID-19

COVID-19 presents the front-line of a new uncertain battle for the human race. Thousands of health care personnel, police and government officials are working round the clock to confront it head-on. While this has recently been highlighted across the world, little has been offered to ensure their mental health and well-being. Most people working in health care emergencies are likely to experience some stress. Some of them may experience distress to the point of not being able to carry on. They require help. It is critical to ensure that those in need are identified early and offered an appropriate intervention.

The commonest disabling mental health issue experienced by personnel in the front-line of any pandemic is “burnout”. Described classically as a triad of emotional exhaustion, depersonalization (loss of one's empathy, caring, and compassion), and a decreased sense of accomplishment. These may exist in varying degree or one symptom can predominate. Burnout can have a significant impact on competence and can impact health care delivery.

Risk factors for burnout

- Long working hours
- Worry about risk to self and family
- Concerns about inadequate personal protection materials
- Separation from family/loved ones
- *Pre-existing mental health & addiction issues*

How to prevent and combat burnout?

Self-care

All personnel in the front line should be made aware of the principles of self-care. Self-care includes those activities to promote our emotional, physical, relational, and spiritual/religious wellness. These include the following:

- Have a routine
- Ensure breaks and adequate sleep
- Keep in touch with relatives/friends
- Carry out some activities and hobbies unrelated to work
- Exercise regularly and have a healthy diet
- Practice relaxation exercises like yoga
- Religious activities (if you are a religious person)
- Make time for yourself and your family

In most emergencies the work schedule is hectic, and hence carrying out all activities may not be possible but team leaders should ensure that at the least, health workers get their breaks and facilitate regular contact with friends/family.

Team Leaders/Supervisors

To reduce the stress of the health care workers, team leaders are encouraged to:

- Focus on the long-term, ensure as much as training for their staff to fulfil roles
- Mix and match, ensure that juniors with limited experience work with their senior colleagues
- Ensure staff rotation from jobs of higher stress to lower stress and vice-versa
- Duty/shift breaks/holidays to be agreed within the team and ensured as far as possible
- Ensure good quality communication with accurate information updates
- Have regular team meetings even if its brief. It helps to develop a 'bond' and to also sort out issues that may emerge because of working in stressful situations

- Team meetings may also be used to discuss common mental health issues that arise out of working under difficult circumstances (stress, burnout, anxiety, fear, etc.) and simple steps for psychological 'self-care'
- In the event of unfortunate outcomes like death, ensure that the team has an opportunity to “debrief”. In addition to the factual aspects related to the event, team members may be encouraged to share their emotions which may include guilt, anxiety, and distress.
- A flexible schedule may be considered for any person who has been directly impacted in some way or has an affected family member
- If a team member is experiencing mental health difficulties, provide for a 'buddy'. The 'buddy', can be a senior colleague/workmate, who may be expected to talk and listen and provide common sense suggestions for mental health care. They can also be asked to report back if things deteriorate. 'Buddy' should be made aware that all matters discussed are strictly confidential and to be shared only on a 'need to know' basis.
- All staff to be made aware of the nearest specialist mental health service and access to its services.
- Lastly, refer to any staff member who appears to have uncontrollable distress for assessment and intervention to the nearest specialist mental health service.

Indications for referral for mental health assessment

In most cases, mental health issues are self-limiting. But it is not uncommon for some personnel to show more severe and persistent mental health symptoms which may require immediate assessment and specialised intervention.

The common among them are:

- Expressing suicidal ideas
- Violent/aggressive behaviour
- Uncontrolled use of alcohol/drugs
- Crying or expressing uncontrollable distress
- Unexplained bizarre behaviour like talking or smiling to self
- Significant deterioration in occupational functioning

Specific Issues in Pandemics

Medical personnel in Quarantine

There is an increased risk of health-care workers themselves being infected or quarantined. In addition to stress-related to quarantine, most experience increased concern that their absence will create more understaffing issues. They may also experience guilt and fear that they may have infected their team, family and other patients. A sudden separation from their team also means an increased likelihood of experiencing more social isolation. It is essential that staff in quarantine feel supported by their immediate colleagues. Team leaders should ensure that staff under quarantine are kept in regular social contact.

Life and death decisions

Doctors and team heads working in the frontline of pandemics often have to make difficult and consequential choices. This may include issues related to withdrawal of care or differential allocation of sparse resources like ventilators and having to explain the decisions to affected families. Frontline personnel making these choices may be better served to discuss these decisions in a group or with colleagues. On occasions, professionals may be alone and if they are feeling overwhelmed, then discussing their emotions with a close friend or family may help. At all times, professionals must remain aware of the legal and ethical obligations of protecting patient confidentiality.

Stigma

Personnel working in hospitals in times of pandemic often experience stigmatising attitudes from the general public. Most may experience hurtful social distancing at their place of residence, local groceries or place of worship. Friends and relatives may show reluctance to interact with them. There have been instances of landlords denying residential accommodation to healthcare workers. In rare cases, there can be concerns about physical safety.

The organisational leadership should not be dismissive of these aspects and ensure the safety of their staff. They should encourage staff to remain connected to their friends/family through digital methods. Policymakers should implement local programs of “honouring front line personnel” and acknowledge their role using various media platforms. All staff should be sufficiently informed on means to access mental health and psychosocial support services if required.

Conclusion

Almost all frontline personnel in pandemics like COVID-19 are likely to experience stress to a certain degree. Steps need to be taken proactively to ensure that it remains in control. Personnel should practise 'self-care'. Team leaders should employ steps to minimize mental health difficulties. Administrators should be aware that the mental health support of personnel is an important part of the COVID-19 response. Most importantly, personnel requiring help should be identified and offered appropriate intervention to prevent negative consequences.

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Allaying Anxiety of the Worried Well

The COVID-19 Pandemic is likely to evoke questions in the minds of a vast number of people across the globe due to its high degree of communicability and a greater fatality rate compared to many other flu-causing viruses. The condition does not have specific medications at present and there are no vaccines developed to date. The only methods to avoid contracting the illness are through hand-washing/hand sanitising, social distancing, etc. These measures would help to prevent the spread of infection to a great extent. However, many people would start “worrying” if they would contract the illness.

Case Study

A 60-year-old lady consults a physician with dry cough of one-month duration and no other symptoms. The physician explores other symptoms such as fever, breathing difficulty, etc. On examination, the respiratory system was found to be normal. The physician explains that this is probably an allergic dry cough and prescribes the required medications. However, the patient requests for the COVID-19 test to be done to confirm that she is not suffering from the deadly illness. She is worried that she might have contracted the illness and that she is at a higher risk of developing complications due to her advanced age. The physician tries to reassure her and explains that the nature of her symptoms does not warrant further investigations. The patient continues to express worries and appears overtly concerned about her health. The above person mentioned in the example may be considered to be suffering from a “worried well” condition. It is common to find several individuals worrying during pandemics.

Who are the “Worried Well” ?

They are healthy persons with less severe problems or those with intermittent concerns about their health. These individuals generally complain about symptoms about a particular potentially undiagnosed illness. They may wonder if these vague/non-specific symptoms represent the presence of a significant disease.

Worried Well – Issues for the public health system

- Overburden the already over-stretched health-services.
- Are at high risk of getting infected by repeatedly accessing the health services.
- Render it difficult for health-care workers to prioritise more seriously ill.
- Excessive and exaggerated worries frustrating to the treating physician.

How to manage the “Worried Well” in the COVID-19 clinic?

- Do not turn them away or dismiss their problem
- Make them “feel understood” – first listen to their symptoms in detail and conduct a thorough physical examination
- Provide them with correct and authentic clinical information about COVID-19
- Point the discrepancy of the symptoms with which they present and symptoms of COVID-19 in a non-argumentative manner
- Acknowledge that their fears are understandable in the context of the pandemic's magnitude (Validation). This is a crucial aspect to establish a therapeutic alliance and gain trust.
- Do not provide repeated reassurances or multiple referrals
- Relaxation (please refer to the section on Simple Psychological Therapies for details)
- For subjects with significant anxiety and sleep disturbances, a short course of anti-anxiety drugs may be considered if there are no other medical contraindications. (Alprazolam or Clonazepam 0.25-0.5mg OD/BD may be given for one week and tapered off.). However, efforts must be made to avoid medications and manage them only with education about COVID-19, reassurance, and support.

For severe and disabling anxiety unresolved with the above steps, consider referral to a psychiatrist for detailed assessment including consideration of long-term medications.

Conclusion

In a situation such as the COVID-19 pandemic, “worried-well” may be a paradox to the treating physicians and the health system in general. It is important that these people are understood and engaged with health-care professions so that their anxieties are addressed appropriately. They should also be empowered to be advocates of their health and well-being. Timely referral to psychiatrists for severe health anxiety should be considered.

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Social Stigma with COVID-19

Social Stigma can occur in disease outbreaks when a specific disease is associated with any group of individuals. As a result, these people are likely to get labelled, stereotyped, stigmatized, bullied, racially discriminated and experience loss of their status. This can negatively affect them, their families and their relatives. The recent outbreak of COVID-19 has caused a lot of fear and panic about the disease. There is a lack of understanding and uncertainty regarding COVID-19. People have misconceptions that it has been associated with a certain group of individuals alone. The Social distancing that is advocated as a preventive measure to control the spread of COVID-19 can be misconstrued and easily manifest as social discrimination. The social stigma in India with COVID-19 has been currently based on racial profiling, infectious status, and occupation.

Racial Profiling

In the west, people of Chinese descent have been targeted as COVID-19 has been associated with China. In India, people from the North-east have been targeted. There are numerous media reports of north-east students being called as 'Coronavirus' and spat upon in public because they 'resemble people from China / South-east Asia'. Stigmatizing ideas are also being shown through social media. People from north-east who are being targeted include tourists, migrant workers and students. This has led to an increase in discriminatory behaviour both in public and in social media.

Health Professionals

Health professionals in the frontline of duty treating COVID-19 patients are now facing social stigma. Doctors and hospital support staff are now being distanced as people fear that they will get the infection from them. There are cases where health care professionals are being harassed by their landlords to vacate their homes and now are on the streets. Some of them are also victims of physical abuse for coming on the streets during the lockdown period of COVID-19.

People in quarantine or people with COVID-19

People with coronavirus infection or possible infection can get stigmatized by the words we use to describe them such as 'suspected case', 'victim' etc. These words can further induce fear, sadness and

make them feel unsupported. Similar stigma and discrimination could occur to those who have just recovered or returned from treatment of COVID-19. People in quarantine, all those who just have non-COVID-19 respiratory symptoms or infection and relatives of such individuals can all be subject to stigma and discrimination. The same can also occur to anyone who is in grief following the death of a loved one due to COVID-19.

Consequences of Stigma

- Preventing people from seeking help for COVID-19 when they need to
- Even if they have symptoms they tend to hide illness to avoid discrimination
- Families of medical professionals may pressurize them to quit jobs
- Demotivate frontline personnel from carrying out responsibilities

Stigma due to Covid-19, thus can pose a serious barrier to help seeking, that could lead to disease spread among the population.

What can be done?

- DO talk about the disease (COVID-19), But DO NOT use terms such as 'Wuhan virus/ Chinese virus etc'.

SOCIAL DISTANCING is not to be confused with SOCIAL DISCRIMINATION. Its okay to stay safe by keeping a distance of 1-2 meters. Treat everyone as human with equal status and opportunity.

- DO talk about people with COVID-19, or people recovering from COVID-19, or people who may have COVID-19. DO NOT use 'COVID-19 or COVID-19 suspect'
- DO talk about people acquiring/contracting NOT people infecting/spreading the infection. This means that somehow, we may attach a deliberate intent of spreading the infection that can further induce stigma.
- DO TALK positively about the situation. DO NOT use terms such as infection resembles a plague or apocalypse or world is about to end etc. DO NOT share or repeat rumours.
- DO talk about the effectiveness of preventive measures and that for most people this is a disease that can be overcome. DO NOT dwell on the negatives or messages about the threat it poses.
- Correct misconceptions and do not encourage false propagation

- Encourage the importance of prevention and early screening
- Share sympathetic stories and narratives of struggle about those who have had COVID-19
- Communicate support and encouragement to frontline workers in this emergency (health care workers, doctors, volunteers, and community leaders)

Conclusion

Social stigma increases during infectious disease outbreaks and is often not given the emphasis required. Steps need to be taken at all levels to ensure that stigmatising behaviours are strongly discouraged. A failure to control stigma will impede and slow disease control response.

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Handling Domestic Violence during Pandemics

Why is it necessary to address?

Pandemics like COVID have significant impact on individuals, families and countries. Persons not only have to deal with consequences of infection but also have to deal with measures taken to contain the infection like quarantines, social distancing and lockdowns. Individuals face issues related to health, finances and security concerns and these can impact their mental health and their relationships. Since there are curbs on the movement of the individuals, persons who are in abusive relationships face challenges as they are likely to be in close confined spaces with the perpetrators and may have difficulties in getting the timely help.

UN WOMEN have reported rates of increased violence against women and children more so girls in the COVID-19 times. Hence it is important to address this issue as it can lead to further crisis and probably secondary trauma

What happens to violence during pandemics /social isolation/lockdowns and why conflicts increase?

- Violence is likely to increase as the persons are likely to be in close confined spaces during the lockdowns
- Financial crisis due to lockdowns may lead to increased conflicts
- Substance related issues in the perpetrators
- Reduced opportunities to go out and seek help for violence
- Non availability of services for violence during the pandemic such as shelters or one stop centers and difficulty reaching them due to lockdowns

How can violence manifest?

Violence manifests in different forms like physical, emotional, sexual and often only physical violence gets highlighted.

- Psychological violence in the form of controlling behaviors like not providing financial support, not allowing to participate in health seeking behaviors, putting the person at risk for contracting the infection, not allowing the persons to use telephones or mobiles
- Emotional violence includes – name calling, threats of harm, rebuke, humiliating in front of others
- Physical violence in the forms of hitting, kicking, slapping and using weapons to cause physical harm
- Sexual violence in the form of non-consented sexual intercourse, not using or not allowing to use contraception and thereby increasing unwanted pregnancy as well as sexually transmitted infections.
- Pregnancy related violence
- Violence extending to older adults, children or pets

Simple Tips for families

- Encourage members to have separate times and together times
- Be aware when conflict is escalating so that they give each other emotional space
- Don't dwell on the small stuff
- Lower your expectations from each other so that quarrels are reduced
- Plan your day – Restart hobbies, exercises, work to reduce times for conflicts

Make available in health settings/public domain about violence and avenues to seek help – public information makes people more aware of their own conflicts

What can health professionals do? Suspect violence when they see persons with injuries (may be unexplained), unexplained physical symptoms or mental health consequences like anxiety, psychological distress, deliberate self-harm attempts.

Screening questions

The Questions need to be framed and asked in a sensitive manner. Please conduct the interview in safe place. Ensure confidentiality

1. Begin with the following statement- We generally ask about family life and relationships as they affect an individual's health
2. Have you been having facing any trouble in your close relationships?
3. Do you have any arguments/conflicts at home?
4. How are they generally resolved?
5. *Have you been subjected by anyone in in your close relationships to any form of ridicule, humiliation that has made you feel upset?*
6. *Have you been subjected by anyone in in your close relationships to any form of threats of harm, hitting, slapping or kicking that has made you feel upset?*

If answer is Yes, to questions 5 & 6 you can then ask

- Can you talk more about it?
- Allow the person to express their feelings
- Do not interrupt when they are expressing their concerns
- Validate their feelings
- Be non -judgmental

LIVES is a psychosocial approach that has been formulated by World Health Organization (WHO) that can be used as First aid for woman who are facing intimate partner violence or any other forms of domestic violence. This has been adapted in this chapter to address the immediate needs of any person who is exposed to domestic/intimate partner violence.

- LISTEN - Listen to the person closely, with empathy, and without judging.
- INQUIRE ABOUT NEEDS AND CONCERNS

Assess and respond to various needs and concerns—emotional, physical, social and practical (e.g. childcare)

- VALIDATE

Show that you understand and believe the person. Assure the person that he/she is not to blame.

- ENHANCE SAFETY

Discuss a plan to protect the person from further harm if violence occurs again.

- SUPPORT

Support the person by providing access to information, services and social support.

Issues in Discussing IPV in tele sessions with women

With the lock down and restriction, accessing health services is a challenge during the COVID times. Tele medicine and teleconsulting has been considered as an option of providing services to client

There are some concerns related to discussing violence during tele session

- Ensuring privacy is a challenge
- The perpetrator might be in the same space and there is possibility of escalation of violence
- The client might not be able to discuss the details of violence
- Health professionals may not be able to examine for injuries

So what can be done? Before asking, check with the person if someone is nearby, ask to respond only in yes or no. If the person says no one is around, give a code word that can be used when the person feels unsafe during the conversation or when someone is nearby- like the name of a fruit or vegetable. If there is an imminent threat of violence or continued violence, ask if the person has any support or can move to a neighbor/friend.

If there is an imminent danger of violence to the client, please direct them to contact the nearest police station (Police helpline Phone 1091) or Government of India (National commission for women-domestic violence help-line) (Phone No.181).

Conclusion

People in abusive relationships face challenges during lock-downs and restrictions in movements (as in COVID-19) as they are likely to be in close confined spaces with the perpetrators and may have difficulties in accessing help. Frontline personnel need to be aware and if required explore sensitively and offer timely support to the victims.

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www.shaktiwomen.org

Management of Alcohol Use & Withdrawal Syndrome – In COVID-19 Treatment Settings

Introduction

Alcohol use and dependence are common in the community. In a majority of cases, people use alcohol in moderation but it is not uncommon to see people who have difficulty in controlling alcohol use. **Among them, those using alcohol hazardously (pattern of alcohol use that increases the risk of harmful consequences for the user) benefit from brief psychological interventions.** In many individuals with heavy daily use of alcohol, a sudden reduction or cessation of alcohol use can lead to the emergence of an alcohol withdrawal syndrome (AWS). **Therefore, in any COVID-19 treatment setting, when any patient reports a gradual increase in restlessness, tremors, and sleeplessness, it is important to ask for a history of alcohol use.** In a majority of cases, the withdrawal is mild and requires only supportive care. However, in a certain number of cases, there is a potential to develop life-threatening complications such as seizures and delirium.

This primer provides guidance for brief psychological interventions for hazardous alcohol use and identify and treat cases with both uncomplicated AWS and complicated AWS (seizures or delirium).

Brief Intervention for Individuals with hazardous alcohol use

In individuals using alcohol hazardously, brief interventions help to identify problems with alcohol use and bring about change in alcohol use behaviour. FRAMES is a typical example of a brief intervention for alcohol use. Brief interventions can be provided in 5-15 minutes over 1-4 sessions and have proven effectiveness for reduction of alcohol use.

- **Feedback of personal risk**

After clinical assessment and investigations, clearly inform the patient about his pattern of substance use and existing or potential harmful effects.

For eg: “Your drinking is going to worsen your stomach pain”

- **Responsibility**

Inform your patient that decision about making a change in substance use is their responsibility and choice solely.

For eg: “Now it is up to you to take a decision on drinking”

- **Advice**

As a doctor, give clear advice to reduce drinking and other drug use. Ask your patient to make a balance sheet. Ask about the advantages and disadvantages of drinking. Make the patient see that the disadvantages of using are much more than the advantages of using and the advantages of stopping are greater than the disadvantages of stopping. Clarify any worries or doubts the patient may have about stopping.

Balance sheet		
	Advantages	Disadvantages
If I continue drinking	I can forget worries I can escape responsibilities	I am having more family fights I am having health problems I am spending much more Everyone is looking down upon me My work is suffering I had an accident because of this My health is going to get worse if I continue
If I reduce drinking	My health will improve I will save money I will not injure or harm myself	I will find it difficult to pass time I will miss the pleasure of using I will lose friends
If I stop drinking	I can be like others I can get more respect My health will improve I will make more friends I will save money My family will be happy I will be able to work better	I may lose my friends I am afraid of withdrawal symptoms

- **Menu of alternate choices**

- o Recognising and avoiding trigger situations (hunger, anger, tiredness, loneliness, peer pressure to use, seeing substances/users, being in situations previously associated with use)
- o Planning ahead to limit drinking or use of the substance

- o Learning to cope with everyday problems that encourage drinking or use of the substance
- o Finding alternate sources of enjoyment
- o Dealing with stress, anxiety and mood symptoms
- **Express empathy**

Do not belittle or criticize. Do not refer to the person as an addict/alcoholic directly or to family members/while discussing with others. Acknowledge that substance dependence is a problem that can be difficult to overcome, but can be with some effort and help)
- **Self-efficacy**

Encourage patient to be optimistic and to bring about the changes in drinking/substance use behaviour

Alcohol withdrawal (Uncomplicated)

If there is a pattern of daily drinking particularly with early morning drinking, the treating professional needs to assess for signs and symptoms of alcohol withdrawal.

Signs and Symptoms (Emerge within 6 to 12 hours after last drink and reduce by 7 to 10 days):

They include:

- Autonomic hyperactivity – Increased pulse rate and blood pressure, sweating
- Tremors – Fine or coarse (Depending on the severity of withdrawal)
- Insomnia
- Nausea or vomiting
- Psychomotor agitation
- Anxiety

Evaluation

- Ask for a history of alcohol use, specifically daily use/early morning drinking, recent pattern of use and last use of alcohol
- Ask the patient for symptoms of alcohol withdrawal and concomitant medical problems, especially head trauma, infections, gastro-intestinal bleed and hepatic disease and concomitant use of drugs

- Conduct a thorough physical and neurological examinations (hydration status, PICCLE, hepatosplenomegaly, focal neurological deficits)
- Investigations (when available)– Random Blood sugar, Liver function tests, Renal function tests, Hematology (MCV, Hb, TLC), ECG (>40yrs) and chest X-ray for all patients

Management

General Measures:

- Nutritious diet
- Correct dehydration & electrolyte disturbance (oral or iv)
- Thiamine (100 mg) or Multivitamin (Containing B complex vitamins) injection IM for seven days followed by oral supplementation (two to three tablets a day) for three months
- Proton pump inhibitors for 7 to 10 days

Specific Measures:

- Tab. Diazepam 40 to 60mg in divided doses to be tapered over 7 to 10 days (5 to 10 mg every 2 days)

OR

- Tab. Lorazepam 8 to 12mg in divided doses to be tapered over 7 to 10 days (1 to 2 mg every 2 days)

Example of a tapering regimen for Diazepam or Lorazepam in an individual with uncomplicated AWS

Diazepam 10mg 2-2-2 x 2 days	Lorazepam 2mg 1-1-1-2 x 2 days
1-1-2 x 2 days	1-1-2 x 2 days
1-0-2 x 2 days	1-0-2 x 2 days
0-0-2 x 2 days	0-0-2 x 2 days
0-0-1 x 2 days and STOP	0-0-1 x 2 days and STOP

Precautions (if in the community)

- Advise not to drive vehicles, work at heights or operate heavy machinery
- Advise not to use benzodiazepines and alcohol concomitantly
- Advise to stop medicines if the patient has excessive drowsiness and risk of falling down

- **Report to the hospital if the patient develops seizures or becomes confused or agitated despite treatment**

Alcohol Withdrawal Syndrome – Complicated

Signs and Symptoms

Presence of alcohol withdrawal signs and symptoms PLUS

- Seizures (Generalized tonic-clonic seizures semiology, peak occurrence of seizures 12-24 hours of stopping alcohol)
- Delirium Tremens (confusion, agitation, visual and auditory hallucinations, peak occurrence is 24-72 hours of stopping alcohol)

Evaluation

- Check for alcohol use pattern, past history of similar episodes, known medical comorbidities
- Look for and document other signs of alcohol withdrawal
- Physical and neurological examination – hydration status, external injuries, icterus, hepatosplenomegaly, pupillary reactions, extra-ocular movements, reflexes, gait, meningeal signs
- Check for orientation to time, place, person, consciousness, agitation, violence, delusions, hallucinations, mood changes and suicidal ideation, attention and memory deficits.
- Investigations: Electrolytes, Random Blood sugar, LFT, RFT, Hematology (MCV, Hb, TLC, Platelet count), ECG (>40yrs), Chest X-ray are mandatory.
- CT-Brain with contrast to be done if possible, to rule out other CNS causes of seizures or delirium when suspected.

Management

General Measures

- Keep NPO if the patient is confused or in altered sensorium
- Monitor Vitals frequently: Pulse, BP, RR and Temperature
- Maintain airway
- Secure IV access

- Check hydration status and replace with IV Fluids (if required)
- Correct electrolyte imbalances (Oral or IV)
- High dose multivitamin supplementation (B complex such as Optineuron or Neurobion) 15 ampoules in 500 ml of NS over 4 hours once a day for 7 days
- Proton pump inhibitors/Anti aspiration measures

Specific Measures

For acute control of seizures

- Give IV diazepam 5 to 10 mg OR IV Lorazepam 2 to 4 mg initially and repeat if necessary, at 10 to 15-minute intervals (inject slowly, taking at least 1 minute for each 5 mg given).
- Monitor for development of Delirium Tremens

For delirium tremens (Ideal Management)

- Should ideally be managed in ICU setup with cardio-respiratory monitoring
- Under monitoring by the clinician, IV Diazepam 5 to 10mg every 10 minutes or IV Lorazepam 2 to 4mg every 15 minutes is given until mild sedation is achieved.
- **If there is a failure to achieve mild sedation** even with a dose of 50mg of Diazepam or 10mg of Lorazepam within the first hour OR 200mg of Diazepam or 40mg of Lorazepam in 3 hours, it could be refractory delirium tremens; please refer to an intensivist.
- **If mild sedation is achieved:** Repeat doses of Oral/IV Diazepam or Oral/IV Lorazepam every 4 hours to maintain mild sedation for the next 5 to 7 days.

For delirium tremens (Lesser monitoring facilities and resource-poor setting)

- If LFT is normal, with regular vitals monitoring, Diazepam 10mg hourly oral to be given, till the patient is sedated and PR < 100/min. Average dose between 100 – 200mg may be required in some cases. Total dose required on Day 1 is calculated and given in divided doses from Day 2, tapered and stopped over 7 to 10 days.
- If AST and ALT > 3 times normal values, with regular vitals monitoring, Lorazepam 2mg hourly oral to be given, till the patient is sedated and PR < 100/min. Average doses between 16 – 24mg may be required in some cases. Total dose required on Day 1 is calculated and given in divided doses from Day 2, tapered and stopped over 7 to 10 days.

Precautions to be taken

- **DO NOT REPEAT DOSES OF DIAZEPAM OR LORAZEPAM IF PATIENT IS HEAVILY SEDATED/NOT AROUSABLE/COMATOSE**
- **AVOID USING ANTIPSYCHOTICS (SUCH AS HALOPERIDOL) BY PARENTERAL ROUTE AS FAR AS POSSIBLE SINCE IT INCREASES RISK FOR ARRHYTHMIAS IN DELIRIUM TREMENS**

Plan to refer to a specialist:

- Refractory seizures
- Delirium persisting after treatment with adequate benzodiazepines as instructed above
- Presence of more than one uncontrolled medical comorbidities (such as head injury, Diabetic Ketoacidosis, Hepatic Encephalopathy)

Conclusion

Alcohol use is common in India. Therefore, when patients present with restlessness and tremors, one of the possibilities to be considered is whether it represents alcohol withdrawal. AWS is eminently treatable and can be managed by physicians from different settings. Prompt identification and management of AWS can lead to a significant reduction in morbidity and mortality particularly in cases with seizures and delirium tremens. Treatment of choice for the management of AWS is **benzodiazepines** (Diazepam or Lorazepam are commonly used) and should be used in **adequate doses**. Multivitamin supplementation in appropriate doses is mandatory for all cases of AWS to reduce the risk of neurological complications. Referral to higher centres needs to be considered when there is a requirement of higher than recommended doses of benzodiazepines without resolution of symptoms or if there are multiple uncontrolled medical co-morbidities.

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Management of Tobacco Use Disorder during the Pandemic of COVID-19

Introduction

Tobacco use is a significant public health problem. According to the Global Adult Tobacco Survey – 2, one in every three of our Indian population use one or other forms of tobacco. In the current global pandemic of COVID-19, it is reasonable to be concerned that compromised lung function or lung disease related to smoking history, such as chronic obstructive pulmonary disease (COPD), could put people at risk for serious complications of COVID-19. So abstinence from tobacco during this period might help in mitigating the serious complications from COVID-19.

Presentations of tobacco withdrawal syndrome in COVID-19 Scenario

1. In quarantined people who do not have access to tobacco, restlessness and agitation will interfere in compliance with the treatment strategies.
2. In the patients admitted in ICU, there will be a difficulty in clinical diagnosis whether the agitation and altered sensorium is a part of the underlying disease or a part of the tobacco withdrawal syndrome.

In this chapter, we are going to be focussing on the patients in the above-mentioned situations.

Management of tobacco dependence

The 5A's model is the management protocol for tobacco dependence can be used by health care providers to help a client with tobacco use in quarantine or self-isolation.

The 5A's stand for: Ask, Advise, Assess, Assist and Arrange for follow up.

Step I: Ask:

The health care provider should make it a part of their routine examination to ask every client the clinical history of tobacco use. the questions you should ask are as follows

1. What form/s of tobacco is/ are being used by the person? (Smoke/ Smokeless)

2. How much the person is using?
3. How regular the person is using?
4. What happens to the person physically and mentally, if he or she is not able to access tobacco due to any reason?

Look for withdrawal symptoms.

Withdrawal symptoms:

Develop within 2-4 hours of stopping to smoke

Symptoms:

- Intense urge for using tobacco
 - Tingling sensations in the hands and feet
 - Sweating
 - Nausea and abdominal discomfort
 - Headache
 - Difficulty in focus / concentration
 - Restlessness, Anxiety, Irritability, agitation and low mood, etc
5. How much time the person takes to smoke the first cigarette after getting up from bed? (If someone has to use the tobacco within half an hour of getting up from the bed, it is an indication of addiction/ dependence)
 6. Use of any other substances especially alcohol
 7. History of co-occurring mental illness
 8. History suggestive of physical illness including diabetes, hypertension, chronic lung diseases, heart diseases, etc.

Step II: Advice

The health care provider should urge every client who uses tobacco to quit. The advice should be

1. Clear – Emphasizing the importance of quitting and reassuring the client that the health care provider can help
2. Strong

3. Personalized – During clinical history taking, identify the specific consequences of tobacco use relevant to the person and advice.

Step III: Assess:

Assess the motivation of the client to quit tobacco. Questions should be posed on current readiness such as, “Do you want to stop smoking?” and self-efficacy, “Do you think you can quit smoking successfully?”

If the answer to any of these questions is Unsure/No, motivational enhancement can be done using the 5R's step. But you can provide repeat the advice and tell the client to reach out for help whenever they are ready to quit tobacco, If the client is not ready repeat the advice whenever they reach out for help. If the answer to both the questions is ‘Yes’ proceed to the next two steps

The 5R's technique can help the health care provider to move through the 'Assess' step. The 5R's are

5R's	Strategy
Relevance	How is quitting relevant to the person’s disease status or health of family
Risks	What are the risks of continued use of tobacco in the future in terms of medical illnesses?
Rewards	What improvements in health may be expected after quitting?
Roadblocks	What are the concerns regarding quitting? What are the pharmacological and psychological help available?
Repetition	Client should be encouraged to quit in every visit

Step IV: Assist

a. Psychological measures

Develop a quit plan – Set a quit date ideally within 2 weeks, enlist the support of family and friends, anticipate challenges to the maintenance of abstinence, tobacco products should be discarded from the client's home and office space.

Practical counselling – Information about smoking and challenges in quitting should be discussed with the patient after taking his consent

High-risk situations (Eg - smell of tobacco smoke, seeing others smoking, tobacco products displayed in a shop) should be identified. Clients should plan to avoid these situations as far as possible. Psychological management of craving can be discussed. 5D's are often useful in the management of craving. They are

- **Delay** – Craving often appears in waves. When the peak of the wave comes client can tell himself he will delay the use of any cigarette. He can repeat in his mind about harmful effects of smoking or carry cards listing the same
- **Distract** – Client can use techniques such a counting backward in their mind or be engaged in a task they enjoy doing to shift focus
- **Drink water** – This is largely useful with alcohol
- **Deep breathing/Relaxation** – (Refer to the section on Simple Psychological Techniques for details)
- **Discuss** - Whenever craving comes to discuss with your family about our difficulties. This will serve the purpose of both getting their support and distracting yourself as well

Provision of support – Give positive feedback of the effort client is making, express empathy at the difficulty client faces especially w.r.t withdrawal symptoms and improve his confidence by encouraging to continue the measures he has been following to maintain abstinence.

Provide the client with resources he may read or information about quitlines.

Govt. of India has launched National Tobacco Quitline Services, can be contacted through the helpline number 1800-11-2356. The Govt. has also launched M-Cessation services for quitting tobacco where after giving a missed call to 011-22901701, you will receive a series of messages over the coming months.

The following URL may be shared with clients. The website is maintained by the National Health Portal

<https://www.nhp.gov.in/quit-tobacco>

b. Pharmacological Measures:

There are multiple pharmacological options available such as Nicotine Replacement Therapy (NRT), Varenicline, Bupropion and Nortriptyline. Use of NRT will be discussed below. Other pharmacological options are recommended to be used by specialists.

Nicotine Replacement Therapy:

There are different forms of NRT which are available in India. They are nicotine gums/lozenges and transdermal patches.

Nicotine Gum

Nicotine gum/lozenges are most commonly used for nicotine replacement therapy. The dose and strengths required are in Table 1.

The steps in using the Nicotine gum are

- Chew it slowly until you get the “pungent peppery taste” due to liberation of nicotine
- Place and rest between your cheek and gums “parked”
- When the taste fades repeat the first step. Repeat over 20-30 minutes
- Do not eat or drink or use removable dentures with the gum in the mouth; acidic beverages should be avoided 15 minutes (coffee, carbonated drinks) before using the gums

The possible side effects are headache, nausea, vomiting, heartburn, stomach discomfort, hiccups, and a sore jaw.

The steps in using nicotine lozenge/pastille are:

- Place the lozenge in your mouth, occasionally moving it side to side.
- Allow it to slowly dissolve (about 20-30 minutes) and try to minimize swallowing
- Do not chew or swallow the lozenge
- Don't eat or drink 15 minutes before or while you're using

Table 1. Nicotine Replacement therapy

	>20 cigarettes/day	<20 cigarettes/day
Gum/ lozenge	4mg/every 1-2 hours/Week 1-6 4mg/every 2-4 hours/Week 7-9 4mg/every 2-4 hours/Week 10-12	2mg/every 1-2 hours/Week 1-6 2mg/every 2-4 hours/Week 7-9 2mg/every 2-4 hours/Week 10-12
Patch	21mg/day	14mg/day

Nicotine Patches:

Nicotine patches are also used less commonly for replacement therapy. The doses recommended are in Table 1.

The steps in using the nicotine patch are:

- A single patch is worn each day
- Place the patch on different areas above the waist and below the neck each day
- Put the patch on a hairless spot
- If wearing the patch at night causes odd dreams, try sleeping without the patch.
- The patch should not be put in the same place again for at least 1 week.
- Should be removed during strenuous exercise to prevent excessive absorption.

Side effects of the skin patch are skin rash and allergy.

Nicotine replacement therapy should NOT be USED in patients in an ICU setting

Step V: Arrange – Follow up after 1 week and 1 month after the quit date. The provider should also consider referral to a specialist if there are difficulties. Clients should be congratulated on any success made in their attempts.

Additional Information on resources for Health Professionals

Health professionals can popularise the M-Cessation tobacco support that is available through the National Health Portal of the Government of India. By giving a missed call to 011-22907091, or by registering online at https://www.nhp.gov.in/quit-tobacco-about-programme_mtl, they can get a series of messages on the importance of quitting, dealing with withdrawal symptoms including craving and mood changes and making healthy lifestyle changes. Further, if they wish to speak to a tobacco cessation counsellor in a language of their choice, they can call the National Tobacco Quitline on 1800112356 for free counselling

Conclusion

Tobacco use is common among the Indian population. Given this frontline personnel may need to offer strategies to mitigate withdrawal from Tobacco for COVID-19 and suggest steps in quitting.

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WHO Toolkit for delivering brief tobacco interventions 5A's and 5R's https://apps.who.int/iris/bitstream/handle/10665/112835/9789241506953_eng.pdf;jsessionid=1DD11E3F7E80A9C193FA6569CBDF0539?sequence=1

Management of Mental Health Issues in ICU patients with COVID-19 infection

Intensive care unit (ICU) settings, by their nature as well as the perceptions of individuals in the community, are deemed inherently to carry a high risk of mortality. Due to the same, individuals admitted to the ICU interpret various events occurring inside the ICU based on their circumstances as well as other persons concurrently admitted. These perceptions can sometimes lead to fear, despair or dreadfulness that alternate rapidly with optimism, the hope of recovery and comfort of being cared for. Generally, in the context of any illness, the family's presence and special attention paid by immediate family members contribute to restoring lost hopes. When a person is admitted in the ICU, they are separated from their family, their interaction with them is minimal to none.

A disruptive event causing uncertainty especially like an ongoing pandemic and the nature of COVID-19 isolation procedures destabilizes the emotional balance, generating feelings of insecurity, disbelief, helplessness, and hopelessness. This provides a fertile ground for a variety of psychiatric manifestations to develop, particularly in an ICU setting.

Whilst, patients infected with COVID-19 could manifest various psychiatric symptoms and disorders based on the stage of infection, this chapter focuses only on potential psychiatric issues that could be encountered in those receiving COVID-19 based ICU care.

Mechanical Ventilation

Mechanical ventilation is required in a small proportion of COVID-19 patients, given that the COVID-19 infection particularly targets the lungs and causes respiratory compromise. WEANING off mechanical ventilation is at times associated with acute and severe anxiety that could result in a delay in extubation and might mimic the inherent nature of infection resulting in respiratory distress leading to reintubation, prolonging the need for ventilatory support. Hence, an appropriate psychiatric medication that reduces anxiety (low dose antipsychotics- listed further in this chapter) is advisable. A plethora of psychiatric conditions are associated with mechanical ventilation including -

1. anxiety
2. sleep disturbance
3. depression
4. delirium
5. communication problems
6. pain
7. fear of being dependent on the machine for breathing

Delirium (also called ICU psychosis) - Patients admitted to the ICU are prone to developing delirium. Elderly individuals and people with decreased cognitive reserve such as those with preexisting dementia are at higher risk of developing delirium. It is usually multi-factorial and identifying the cause(s) is central to the management of delirium.

Symptoms that indicate the presence of possible delirium include the following:

1. inattention, confusion or disorganized thinking (talking irrelevantly or out of context/ not aware of time or place/ perplexity)
2. fluctuation in levels of consciousness (GCS score reductions/ changes) and altered psychomotor activity (restlessness/ agitation/ decreased motor activity)
3. rapid fluctuation in emotions (sudden unprovoked irritability, crying spells, laughter)
4. presence of auditory (hearing sounds/ voices of that are not present) and/or visual hallucinations (seeing objects/ persons not present).

If a COVID-19 infected patient becomes disruptive then, the management of such a disruptive behaviour is of utmost importance as it could result in a break in the isolation protocol and may place health care professionals at higher risk of exposure to infection. This may also place the neighbouring patients' life at risk by interfering with their treatment.

Prevention of ICU delirium using non-pharmacological behavioural interventions

Preventing the onset of ICU delirium has been proven to be a useful strategy. Even if delirium occurs despite these measures, it happens to be a milder severity and shorter duration.

These interventions typically include

1. Efforts to help in orientation

2. Enhance sensory efficacy (e.g., encouraging patient to use their glasses or hearing aids)
3. Promote sleep
4. Adequate and appropriate pain management
5. Preventing complications of immobility (bed sores)
6. Optimization of physiological parameters (e.g., electrolytes, hydration)
7. Foster physical therapy/early mobilization.

Management of delirium/ psychosis:

1. Identification and resolution of the primary cause for delirium is most effective and of prime importance. This includes evaluation and management of electrolyte, metabolic disturbances, substance use, polypharmacy (drug interactions/ toxicity), other infections, vascular causes, and traumatic injury.
2. When behavioural symptoms are disruptive or likely to interfere with treatment, the use of low dose antipsychotic medication is generally preferred for its short-term management. Among the antipsychotic medications, haloperidol is generally preferred over the other antipsychotics because of its availability in oral as well as injectable formulation, efficacy, safety because of lesser anti-cholinergic side effects and lesser propensity to cause sedation. The choice of medications depends on effectiveness and control; if one isn't working the other may be considered as an alternate.
 - a. If a patient is in a position to take oral tablets, then oral haloperidol should be preferred over parenteral administration. A low dose of haloperidol (up to 2.5 to 5 mg up to twice a day) is generally adequate.
 - b. Alternately Olanzapine 2.5 mg to 5mg in divided doses can be administered orally, which can be increased to 7.5mg or 10mg based on tolerability. Other options to be considered if there is history of seizures.
 - c. Alternately, Quetiapine 25mg to 50 mg in divided can be administered orally
3. **SIDE EFFECTS MONITORING:** After administration of haloperidol, monitor for acute extrapyramidal symptoms such as dystonia, parkinsonism, akathisia and other side effects like cardiac arrhythmias especially if the patient has hypokalemia and prolonged QTc.
4. Preliminary evidence suggests a role for hydroxychloroquine in the management of COVID-19 infection and with its potential adverse effect of QTc prolongation, cardiac arrhythmias the treating doctor should be cautious about concurrent use of hydroxychloroquine and parenteral haloperidol. This necessitates regular cardiac monitoring.

5. **RESPIRATORY DISTRESS AND RESPIRATORY FAILURE are fatal manifestations of COVID-19, hence ADMINISTRATION OF BENZODIAZEPINES SHOULD BE AVOIDED.** They may be used only when delirium is secondary to alcohol or sedative hypnotics withdrawal. In these cases, SHORT ACTING low dose oral benzodiazepines (e.g. Lorazepam 1mg to 2 mg) may be considered preferably with FULL VENTILATORY BACKUP.

Conclusion

Medical professionals should be aware of common psychiatric and behavioural manifestations of patients with COVID-19 in intensive care settings. Addressing these with simple pharmacological and non-pharmacological approaches is not only effective but also helps in reducing mortality and later morbidity.

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Suicidality in the context of COVID-19 Pandemic: Risk Assessment and Management

Introduction

The ongoing COVID-19 pandemic worldwide has been increasingly associated with suicides. Instances of suicide in context of the pandemic have been reported among individuals who have tested positive for COVID-19 infection, those who have suffered severe financial set-backs and those experiencing alcohol withdrawal syndrome. The COVID-19 pandemic has led to significantly increased levels of stress at community, family and individual level with a consequent increased vulnerability to suicide. Adding to the same are various policy measures formulated to address and limit the spread of COVID-19 in India. These measures leading to isolation and stigma due to illness, limited access to basic necessities and financial stress, as well as a rapid dissemination of information (including mis-information) via internet based platforms, have led to increased levels of anxiety, fear and psychological stress across the entire country. This distress may stem from the uncertainty of their own as well as their family's health, well being and these could increase the suicide risk. People with pre-existing psychological problems, psychiatric disorders (depression, anxiety and specially alcohol dependence) may be more vulnerable to suicide risk.

The following are guidance that can be used by medical professionals (and other frontline personnel) for recognizing those at risk for suicide, assessing the risk and providing management.

Who needs to be assessed?

The behaviours described below should possibly warn health professionals that they may represent “Warning Signs” that individuals in the context of COVID-19 may be contemplating suicide and will require assessment.

Emotional

- ❖ Acute stress

(Q. Are you *feeling overwhelmed* with your *current* situation as a result of the pandemic (home isolation or quarantine/ hospital quarantine) / Are you *experiencing persistent severe distress* due the impact of the pandemic on your life or Have you developed *any unexpected problems* that are linked to the pandemic e.g. relationship strain or sense of loneliness or change to family dynamics/ abandonment/ isolation, substance withdrawal-nicotine/alcohol, financial or job related uncertainty/ experiencing stigma resulting from COVID-19 infection?)

- ❖ Anxious or agitated

(Q. Do you *feel persistently/ continuously anxious/ restlessness or agitated* these days as a result of the pandemic? Are you *overwhelmed with thoughts about your own or your family's health, wellbeing, safety, financial security or access to basic amenities?*)

Feeling/Talking

- ❖ Feeling isolated

(Q. Do you feel alone/isolated since quarantined? Are you missing your family members due to the quarantine?)

- ❖ Feeling of hopelessness and worthlessness

(Q. Do you think your situation/ health (for those +ve or suspected to be +ve/ experienced extreme set backs) will never improve? Do you think you will NEVER be able to pass through this phase? Do you feel that you are or will become a burden to others? Do you feel worthless about yourself that you're unable to improve your situation or regret that you didn't do enough earlier? Do you worry about uncertainty of future, a sense of lack of control for your situation?)

- ❖ Suicidal ideations/plans

(Q. Do you feel it is better to end your life? Do you wish you were dead? Are you thinking about suicide? Do you have any suicidal plans? If so enquire about method, any preparatory acts et

Behaviours

- ❖ Signs of extreme anger

(Q. Do you blame others for your current situation? Do you feel seeking revenge on them?)

- ❖ Displaying extreme mood swings

(Q. Do you experience sudden sadness/ anger/ frustration/ emotional swings that are beyond your control? Do you cry often these days?)

- ❖ Change in patterns of Substance use

(Q. Has there been an increase/decrease in use of substances like alcohol, tobacco etc? Having strong urge to use them now? Experiencing severe withdrawal symptoms?)

❖ Change in patterns of eating/sleeping

(Q. Has there eating or sleeping much more or less)

Assessment:

- Evaluate for any ongoing stress/ consequences of the pandemic on specifically the individual.
- Explore for risk factors (imminent job loss or recent unemployment, relationship, illness, severe financial stress/ large debts/ poor-limited social support, previous history of mental health issues) and also make it a point to ask for protective factors(e.g., family support, stable relationship, assured employment on an ongoing basis, good coping skills, religious beliefs)
- Enquire about suicidal thoughts and behaviours. Eliciting information about suicidal thoughts may begin with a normalizing question (It is common for people to think of death and dying in difficult situations such as these. Do you sometimes entertain thoughts about death and dying?)
- Explore for the frequency and severity of suicidal thoughts (ask about the suicidal plan in detail)
- Details of any recent suicide attempt should include the intention for attempting suicide, lethality, mode of attempt and reasons for the attempt.
- Ask for history of mental illness. In patients with known mental illness, ask for auditory hallucinations (hearing voices), specifically for commanding type.
- The assessment should allow for a reasonable stratification of risk as low (few risk factors, more protective factors), medium or high (more risk factors, less protective factors, active plans or a recent attempt)

RISK FACTORS for completed suicide

- ❖ Previous suicide attempts
- ❖ Presence of mental disorders
- ❖ History of substance use disorders
- ❖ Family history of suicide
- ❖ Chronic physical illness/terminal illness

Non-Pharmacological management

What immediate intervention can be provided?

During the assessment, some general interviewing and counselling skills are likely to be helpful such as:

- ✓ Offering help by stating “I’m here to help you.”
- ✓ Be a good listener “Give ample time to allow the person to express all their worries, apprehensions and thoughts”
- ✓ **Avoid** making dismissive comments like “*you’ve nothing to worry*” or “*don’t think negatively*” “*Everything will be fine*” “*Many more are in much worse trouble than you*”
- ✓ Be non-judgmental, **avoid** making statements like “*you should’ve done more when you had the chance*” “*you shouldn’t have taken that loan*”
- ✓ State that you can understand the person’s feelings in this situation and that almost everyone is feeling the worry and anxiety
- ✓ Being supportive (we can all get through this together; we need to help each other) and instilling hope (*FOR suspected COVID-19 people-* there is a high possibility that you’re not infected/ *FOR COVID-19 confirmed cases-* majority of people recover from COVID 19 with mild symptoms and without any complications).
- ✓ Building a contract by asking ‘Will you promise me not to harm yourself till I find help for you?’

Crisis plan as a safety net to safeguard the life of the patient should be in place.

The crisis plan can include

- ✓ Distraction from the suicidal thoughts by reading books, keeping in touch with family via mobile phones/ developing a regular schedule within the confines of self-isolation that focus on self-improvement-physical/psychological, starting new or re-starting old hobbies etc.
- ✓ Writing down thoughts in a diary
- ✓ Promising to oneself about not making an attempt
- ✓ Talking to friends or family about their feelings and thoughts
- ✓ In medium and high-risk cases, a psychiatric consultation will be required
- ✓ In such cases, a constant vigilant observation by family members or staff needs to be implemented, and all possible access to means including sharps and medicines should be minimized

Initiate high suicidal risk management

- ✓ Constant supervision by staff. The bed should be located close to the nursing station with easy view
- ✓ Scissors, razors and other potentially lethal objects should be removed
- ✓ No medicines with the patient
- ✓ A shatterproof window of the room, windows with mesh, high windows
- ✓ Doors of the room without latches/bolts from inside
- ✓ Risk assessment twice daily-high risk/medium-once daily/low-once weekly

Intervention based on level of risk:

Risk Level	Risk	Suicidality	Possible Interventions
High	<ul style="list-style-type: none"> • Depression or other psychiatric illnesses • Triggering event • Absence of protective factors 	<ul style="list-style-type: none"> • Has made a Lethal attempt • Recent suicidal attempts • Recurring thoughts about suicide 	<ul style="list-style-type: none"> • Admission to a psychiatric set up is recommended • Removal of access to methods • Vigilant supervision by the staff
Moderate	<ul style="list-style-type: none"> • Multiple risk factors • Few protective factors 	<ul style="list-style-type: none"> • Ideation with plan 	<ul style="list-style-type: none"> • Admission may be necessary • Develop a crisis plan • Frequent observation by staff/family
Low	<ul style="list-style-type: none"> • Few risk factors • Strong protective factors 	<ul style="list-style-type: none"> • Thoughts of death, • No plan, intent or behaviour 	<ul style="list-style-type: none"> • Outpatient referral to a counsellor or mental health professional recommended

Specialist Assessment

If there is a history or symptoms of severe mental illness and the symptoms are suggestive of severe depression and psychosis the person may be referred for psychiatric assessment. Further any patient with moderate or severe risk (see table above) will require specialist psychiatric evaluation.

Suicide risk of Frontline personnel

Frontline personnel experiencing burnouts, health anxiety, pre-existing mental health & addiction issues are also likely to have a heightened suicide risk. It is necessary to ensure early mental health assessment and interventions if they exhibit any early 'warning signs'.

Conclusion

The likelihood of suicide risk may be higher among subjects exposed to the COVID-19 pandemic. The guidance are envisaged to help frontline personnel to assess those at risk for suicide, determine their risk level and provide appropriate management.

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Aggression in the context of COVID-19 Pandemic: Risk Assessment and Management

Introduction:

COVID-19 pandemic has created psychological distress and various levels of crisis in the society which includes financial, social and occupational. Various measures taken to curb the pandemic spread include quarantine, isolation and nationwide lockdowns. In the current scenario of COVID-19 pandemic, psychological distress can lead to aggression in some particularly in those with pre-existing psychiatric illness.

Aggression can be a symptom of bipolar disorder, psychosis, substance use disorders, and delirium. In the background of the recommendation of chloroquine as a prophylactic and treatment agent in COVID-19 cases, *it is important to note that there are reports of chloroquine induced psychosis. Aggression has to be managed systematically, and in a COVID-19 patient, additional precautions have to be taken to prevent the spread of disease to health workers, other patients, and care givers.*

Assessment of risk for aggression

An initial assessment should include the assessment of risk factors for aggression.

- ✓ Younger age
- ✓ Male gender
- ✓ Substance use
- ✓ Past history of violence
- ✓ Presence of psychiatric illness

(Suspiciousness/fearfulness towards others, hearing voices that command a person to act in a particular manner)

- ✓ Environmental factors such as overcrowding, the frustration of being isolated or quarantined and easy accessibility to weapons that can be used for aggression.

NOTE: Imminent signs of violence – verbal and nonverbal including direct threats of violence should not be missed

If a patient shows any signs of aggression, evaluate the following:

- What is the magnitude of the intended harm?
(e.g. verbally abusive, threatening physical harm to self or others, damage to property)
- What does the patient want?
(e.g demanding discharge, demanding for specific needs in quarantine home, demanding tobacco/alcohol)
- Does the patient have any plan to execute violence?
(e.g. Does the patient voice out to slap/hit/break things, any accessible means to carry out violence, any recent event of violence in the quarantine facility)
- Who is the potential victim and how accessible is the victim?
- How soon is the patient likely to carry out the threat?

Intervention

1.Verbal de-escalation: De-escalation is a technique where the health care professional calmly communicates with an agitated patient to understand, manage and resolve his/her concerns. It should help reduce the patient's agitation and potential for future aggression or violence.

Interview settings:

- Even though the patient is isolated due to COVID-19, try to ensure privacy during the interview
- The patient should be under constant observation by keeping the patient near the nursing area
- There should be a clear exit point for the health care professional
- Maintain a safe distance of at least two arm distance
- Never examine a potentially violent patient alone and call for more help when required

Interview technique:

- Stay calm and listen to the patient carefully.
- Try to understand his concerns and reasons behind aggression.

- Talk to the patient softly yet firmly.
- Stay non-provocative and be non-judgmental.
- Address the patient's concerns that are valid and offer valid solutions.

II. Chemical restraint:

- If verbal de-escalation fails or cannot be used and with imminent risk of violence, chemical restraint can be used. Informed consent should be taken from the patient or bystander as far as possible.
- The following agents can be used –Olanzapine, haloperidol, lorazepam, promethazine. Oral route is preferred or else, intramuscular-i.m. (haloperidol, promethazine) /slow intravenous i.v. (haloperidol, lorazepam) the route can be used as the second choice.
- T. Olanzapine 5mg stat dose may be an oral agent if the patient is willing. But this strategy IS INEFFECTIVE IF THERE IS AN IMMEDIATE RISK OF AGGRESSION.

Benzodiazepines should be used with caution in case of respiratory compromise.

Medications	Dosage per day	Route	Side effects	Monitoring
Olanzapine	5 -20 mg	P.O *10 mg IM	acute dystonia, hand tremors, rigidity, slurring of speech	Motoric side effects
Haloperidol	2.5 to 10 mg	P.O/IM/ Slow IV	acute dystonia, hand tremors, rigidity, slurring of speech	Motoric side effects. Cardiac monitoring required for REPEAT DOSING (ECG-QTc prolongation)
Lorazepam	2 mg to 6 mg	P.O/IM/ Slow IV	Respiratory depression	PR/ BP/ RR
Diazepam	5 mg to 20 mg	P.O/IM/ Slow IV	Respiratory depression	PR/ BP/ RR
Phenergan/ Promethazine	25 mg to 50 mg Usually given with antipsychotic to prevent dystonia	P.O/IM	Anticholinergic side effects	Cardiac monitoring

Mechanical restraint:

- Mechanical restraint should be used sparingly, never used as the first choice and only used if
 - there is a risk of disruption to life-saving measures
 - aggression is present even after adequate sedation or
 - if there is a contraindication for chemical restraint.
- Four point restraint with a designated person for each limb and the lead manages the head and airway. The soft bandage should be used. Restraint should be done in a supine position with both legs nearby and one hand above the head and the other hand beside the trunk.
- Regular monitoring of vitals, circulation to extremities and injury due to restraints should be done once in 15 minutes. Regular assessment for the continuation of restraint should be done and once the person becomes calm, restraint should be removed one limb at a time.
- Restraint should not extend beyond two hours and should be continued only after a thorough reassessment of risk.

S.A.F.E.S.T Approach as listed below:

S-Spacing: Maintain distance from the patient.

A-Appearance: Maintain empathetic professional detachment. Appear calm. Build rapport.

F-Focus: Focus on patients' hands and nearby potential weapons. Watch for escalating agitation

E-Exchange: Engage in conversation and try verbal de-escalation. Avoid punitive or judgmental statements

S-Stabilization: Stabilization techniques include chemical and mechanical restraints

T-Treatment: Once the patient is more manageable, treatment should be initiated for the underlying disorder.

Conclusion

Psychological distress and pre-existing psychiatric illnesses are risk factors for aggression in patients kept in COVID-19 treatment settings. The guidance described will help in the assessment and safe management of subjects with aggression.

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Common and Safe to Use Psychotropics In COVID-19 -A Practical Guide for Non-Psychiatrists

Mental Health issues following the COVID-19 are wide-spread. Specialist mental health services may not be available or accessible as the existing medical services are strained following a huge influx of patients. Given this, it may be imperative for non-psychiatric medical professionals to prescribe psychotropics' for short term management of psychiatric disorders.

In this context, this chapter describes psychotropic medications safe to be used in COVID-19 in two scenarios

1. Those with pre-existing psychiatric illness and currently under treatment for a comorbid medical condition.
2. Acute onset behavioural symptoms in those receiving treatment for a medical condition.

1. TREATMENT OF PATIENTS WITH PRE-EXISTING PSYCHIATRIC ILLNESS

Most psychiatric illnesses require long-term treatment(≥ 6 months) with psychotropics, which may have to be continued even after remission of symptoms to prevent relapse. These psychotropic medications may have drug-drug interactions with medications used for comorbid medical conditions. Further, they may cause deleterious consequences following the emergence of a comorbid medical condition (e.g. respiratory insufficiency, renal failure, etc.). Precautions for commonly used psychotropic agents in the context of COVID-19 are discussed below:

I. ANTIPSYCHOTICS

a) Indications

- Antipsychotics are commonly used for the treatment of psychotic disorders such as schizophrenia, schizo-affective disorder and acute psychosis.

- They are also used in the acute treatment of mood disorders such as mania, bipolar depression and depression with psychotic symptoms.
- Certain second-generation antipsychotics (e.g. quetiapine) are also used for prophylaxis in bipolar disorder.

b) Adverse effects

- First-generation antipsychotics like haloperidol, trifluoperazine, fluphenazine, and chlorpromazine can cause extrapyramidal side effects (EPS) such as tremors, rigidity, dystonia and sometimes neuroleptic malignant syndrome.
- Although relatively infrequent, second-generation antipsychotics (e.g. olanzapine, risperidone, quetiapine, clozapine, etc.) may also cause the above adverse effects. They are more likely to cause metabolic side effects like weight gain, hyperlipidaemia, worsening of diabetes mellitus etc.
- Clozapine, which is commonly used in treatment-refractory schizophrenia can rarely cause agranulocytosis, seizures and cardiomyopathy.

c) Drug interactions

- Some antipsychotics like haloperidol, quetiapine, ziprasidone can prolong QTc interval. Hence any drugs which also can prolong QTc can have a synergistic effect and should be used with caution.

d) Precautions in COVID-19 patients

- Most of the potential drug interactions are secondary to Cytochrome P450 Inhibition by antiviral medications. Antivirals like lopinavir and ritonavir are CYP inhibitors and can increase levels of haloperidol, olanzapine, and quetiapine. Hence it is imperative to monitor for adverse effects and reduce the dose of the latter if required.
- Azithromycin and hydroxychloroquine can cause QTc prolongation which can worsen when combined with haloperidol/quetiapine/ziprasidone. They have to be used cautiously, with ECG evaluation, in patients with underlying cardiac conditions

II. ANTIDEPRESSANTS

a) Indications

- Antidepressants are commonly used in the treatment of depression, anxiety disorders, and obsessive-compulsive disorder. The most commonly used antidepressants include selective

serotonin reuptake inhibitors (SSRIs) (e.g., escitalopram, sertraline, fluoxetine), tricyclic antidepressants (e.g., amitriptyline, clomipramine, dothiepin), venlafaxine and mirtazapine.

b) Adverse Effects

- Common but relatively mild side-effects include gastritis, diarrhoea, insomnia, and sexual dysfunction. Unusual but notable side effects include the risk of hyponatremia and an increase in bleeding tendencies. Rare side effects include serotonin syndrome, which occurs when combined with other serotonergic drugs.
- Antidepressants especially venlafaxine can cause discontinuation/withdrawal effects on sudden discontinuation.
- Tricyclic antidepressants can cause weight gain, anticholinergic side effects, and sedation.

c) Drug interactions

- Fluoxetine, paroxetine, and fluvoxamine can increase the toxicity of antivirals due to CYP inhibitory action.
- Mirtazapine, bupropion and TCA's also are metabolised by CYP isoenzymes.
- Escitalopram and sertraline are safer because of lesser drug interactions and side effects.

d) Precautions in COVID-19 patients

- Antivirals tend to increase levels of certain SSRIs (particularly fluoxetine, paroxetine) and may increase the risk of serotonin syndrome.

III. MOOD STABILISERS

a) Indications

- Lithium, valproate, carbamazepine, and lamotrigine are effective mood stabilizers used in long term prophylaxis for bipolar affective disorder.

b) Adverse Effects

- Lithium has a narrow therapeutic index (levels between 0.6-1.2 mEq/L). The risk of lithium toxicity is especially higher in those with renal failure, dehydration, hyponatremia, and ingestion of NSAIDs/diuretics.
- Valproate affects hepatic transaminases and can cause hyperammonaemia – young children are at risk for hepatotoxicity.

- Lamotrigine can cause Stevens-Johnson syndrome when the dose is increased too quickly.

c) **Drug interactions**

- Exercise caution while using NSAIDS with Lithium as it can increase lithium levels.

d) **Precautions in COVID-19 patients**

- Lithium is excreted unchanged in the urine and hence is the least likely to have specific drug interactions with antiviral drugs. However, adverse effects have to be monitored because of the narrow therapeutic index and propensity to cause cognitive effects in patients on multiple medications.
- Valproate level may decrease with ritonavir but is generally safe with other antiviral drugs. Similarly, lamotrigine levels may decrease with ritonavir.

IV. **SEDATIVES/HYPNOTICS**

- Cumulative or higher doses of benzodiazepines can rarely cause respiratory depression. Hence, longer-acting benzodiazepines like diazepam or clonazepam may be avoided. Further, they may have CYP related interaction with antiviral drugs. Lorazepam is preferred as it has the least interaction with antiviral drugs and shorter acting.

2. TREATMENT OF ACUTE ONSET BEHAVIOURAL DISTURBANCES WITH PSYCHOTROPICS

I. **DELIRIUM**

- Definitive treatment includes the identification and correction of the underlying cause.
- Antipsychotic drugs like haloperidol, olanzapine or quetiapine are found to be highly beneficial in the management of the agitation. Haloperidol can be given at doses from 2.5-5mg orally or intramuscularly. Intravenous administration should be accompanied by ECG monitoring. Promethazine may worsen delirium. Olanzapine 5-10mg can also be considered either orally or intramuscularly. Oral quetiapine (25-50mg) may also be helpful.
- Avoid benzodiazepines (except in cases of Delirium Tremens) as cumulative doses run the risk of respiratory depression and may cause paradoxical disinhibition.

II. **ACUTE PSYCHOSIS/MANIA**

- Atypical antipsychotics like oral risperidone (4-8mg) /olanzapine (10-20mg) are the first-line drugs used in treating acute psychosis and mania.

- Catatonic symptoms respond to higher dose of IV Lorazepam but should be used with caution in individuals with compromised respiratory status because of the risk of respiratory depression.
- IV Haloperidol 5-10mg can be used alone or in combination with promethazine (only through intramuscular route) in severe states of agitation as a chemical restraint.

III. ANXIETY

- Patients with anxiety or panic-like symptoms can appear agitated and restless. Patient with acute anxiety might develop panic attacks presenting with a sense of impending doom, breathlessness, hyperventilation, sweating, restlessness, irritability and sometimes agitation. Severe cases might necessitate referral to a psychiatrist.
- Low dose benzodiazepine preferably a short-acting drug like lorazepam orally or parenterally can be helpful in acute management. In case of a diagnosable independent anxiety disorder, SSRI's like escitalopram 10-20mg or sertraline 25-100mg can be considered. SSRIs can cause hyponatremia in the elderly.

IV. DEPRESSION

- Depression is a common comorbidity with chronic medical illnesses. It may also be seen in those with acute illnesses and is often underrecognized.
- As discussed earlier, escitalopram (10-20 mg/day) and sertraline (50-100 mg/day) is preferred. Despite the risk of hyponatremia in the elderly and medically ill, it is relatively safe to use. Improvement is expected after a few weeks.

V. INSOMNIA

- Benzodiazepines are the most commonly used sedatives/hypnotics. They are faster acting and hence preferred in medical settings. Oral or parenteral lorazepam (1-2 mg) may be used with caution in COVID-19 patients.
- Zolpidem (2.5- 5mg) is relatively safe in terms of respiratory functioning although levels are increased in patients taking ritonavir.
- Low dose antidepressants (e.g. amitriptyline 25 mg, trazodone 50 mg) or antipsychotics (quetiapine 25 mg, olanzapine 5 mg) are used sometimes as short-term hypnotic agents.

Table-1 Recommended drugs for acute psychiatric conditions in patients with COVID-19

Condition	Recommended drugs
Delirium	Haloperidol 2.5-5 mg PRN Olanzapine 5-10 mg PRN
Acute psychosis/mania	Risperidone 4-8 mg/day* Olanzapine 10-20 mg/day
Anxiety	For acute anxiety attacks Lorazepam 1-2 mg PRN
	For long term treatment of anxiety disorders Escitalopram 10-20 mg
Depressive disorder	Escitalopram 10 -20 mg/day Sertraline 50-100 mg/day
Insomnia	Lorazepam 1-2 mg PRN
	When benzodiazepine are contraindicated Zolpidem 2.5-5 mg PRN Amitriptyline 25 mg/day Trazadone 50 mg/day Quetiapine 25 mg/day

* Trihexyphenidyl may be added to prevent extrapyramidal symptoms

Conclusion It is expected that mental health issues are likely to increase significantly following COVID-19. The information provided in this chapter is envisaged to guide practitioners in safer use of psychotropics.

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Simple Psychological Strategies to deal with Common Mental Health Concerns in the wake of COVID-19

The current pandemic of a novel strain of Corona Virus (COVID-19), has affected several communities across numerous countries with far-reaching consequences. Individuals exposed to disease outbreaks, in addition to a direct impact (eg. strict control/quarantine), suffer indirect consequences (eg. loss of income), both of which can have mental health consequences. The specific mental health consequences of COVID-19 have been detailed separately in relevant sections. This chapter will detail the psychological techniques which can be used across various mental health issues presenting in communities exposed to disease outbreaks. The section has used simple language to ensure that given the strain on health-care resources, these strategies can be provided by any frontline worker.

The following aspects are addressed in this chapter:

1. Handling distress related to quarantine/isolation
2. Relaxation (Abdominal breathing)
3. Helping resolve grief
4. Helping people solve problems
5. How to 'break bad news'
6. How to handle angry and distressed persons

Techniques to 'break bad news' and 'handle angry persons' are especially useful for frontline personnel working with distressed people.

1. Handling distress related to quarantine /isolation

Social isolation is associated with significant psychological distress and can impact the functioning of the individual.

Steps:

- Validate the feelings of anxiety/stress and use a non-judgmental approach
- Check on the concerns related to quarantine /isolation (examples given below)
 - Fear about their own health and health of their loved ones
 - Stress of being monitored
 - Anger and frustration of being stigmatized
 - Guilt feelings about not being able to perform normal work
 - Worries about family members and their safety
- Allay the anxiety about health by providing reliable sources of information
- Advise them to be in touch with family members over the telephone and social media
- If they are being overwhelmed by the social media messages on the pandemic, advise them to take a break from the same
- Ask them to focus on keeping a routine for themselves while in isolation
- Encourage them to do physical exercises
- Ask them to pursue a hobby to keep themselves occupied
- Advise them to practice relaxations exercises namely meditation, abdominal breathing

2. Relaxation (Abdominal Breathing)

- Sit in a comfortable position on the ground or a chair.
- Remove your wallet, belt or other items (phones) from your shirts, trousers or dress.
- Relax your shoulders.
- Bring your hands to your lower belly with your two middle fingers touching the belly.
- Close your eyes now.

- Take a long, deep, gentle breath and send this long and deep breath down to your belly, so your stomach expands (keep your shoulders relaxed). You should find that your middle fingers naturally part slightly as the belly expands with the breath.
- Exhale or breathe out slowly. Now you can feel how the belly naturally draws inwards as the breath exits the body and the middle fingers slide to touch again.
- Do this abdominal breathing a minimum of 10 times (inhale and exhale slowly).

3. Handling Grief

Pandemics can cause tragic loss of lives. People may lose their family members, friends, and other loved ones. Things can be further aggravated owing to the inability to attend funerals, guilt regarding the inability to save etc.

Steps

- Acknowledge feelings of loss.

Tell them that you can't imagine how difficult it must be for them

- Allow them to express their emotions (crying, shock, disbelief)

If the person is crying or in shock, be with the person and do not interrupt them. Give them time to express their feelings.

- Allow them to talk about the loved person if possible.

Let the person express about the loved person if they are ready to speak.

- Ask them what they need

This needs to be done in a sensitive manner. This is to elicit the needs of the individuals going through grief

- Help them to connect with the persons who will support them

Ask them about the person who they would like to connect and provide the support for the same (would you like to call anyone now).

- Ask them what support they need for what happens next.

Persons might need to complete the procedures and will need support for the same.

- If you do not have answers for a question, acknowledge that you don't know what to say. Never give information you are not authorised to.
- If there are many members of a family and want time with each other, allow them the space to talk to each other.
- Provide them with the contact details of the person if they need to contact for any details.

It is useful to provide details of the contact persons of the settings whom they can contact if need be

- Each individual and families have different ways of grieving so do not judge.

Do not judge or impose your beliefs.

- Ask them to get in touch with mental health professionals, if emotional problems worsen.

Tell them that if they are persisting to feel highly distressed, have thoughts about harming themselves, they need to seek professional help

4. Helping people solve problems

Pandemics along with the infection also bring in a host of problems including social and economic challenges. Individuals might feel overwhelmed and may struggle to manage problems. Simple problem-solving strategies described below may be helpful.

Steps

- Introduce problem-solving techniques as a way to find solutions by themselves with some support
- Ask the person to identify their problems and amongst them the most bothersome problem.
- Once identified, ask the person to list out all possible solutions
- Help them to choose one or two appropriate solutions and ask them to try out
- Make an appointment for the next visit where they can share the experience of trying these solutions
- If the problems are unlikely to be resolved, help the person to recognise that the problem might not go away and the person needs to think of ways to reduce the problems

5. How to Break Bad News

This may involve communication about the death of a loved one to their family members, deterioration of health status, positive test result for COVID-19, suggesting quarantine and others.

- Before breaking bad news, confirm the information and study the details.
Ex: Breaking the news of the death of the father to the son in an ICU setting
- Prepare yourself to deliver the news.
- Be genuine and honest
- Rehearse in mind how to deliver the news.
- Have details of how the person might respond to bad news
- Choose the right setting to break the news
- Use simple sentences to deliver the news “I'm sorry to have to tell you this”. Don't Overload with information
- Provide information in two or three simple sentences
- Allow the person to respond. The responses may vary from silence to anger. Be prepared to deal with all these emotions.
- Don't be in a hurry. If the person is crying allow them to do so. If the person is angry (you sense signs of aggression, call for help). If the response is silence give them some time
- Provide emotional support until the person gains control
- Summarize, plan further support and revisit.

6. Handling angry and distressed persons

In these pandemic times, persons seeking treatment or their family members, anxious persons might become angry and distressed. Some of the strategies that can be used in these situations are-

- Keep a safe distance, about an arm length away from the person.
- Keep cool and maintain composure

- Don't respond until you assess the situation. Choosing not to respond could also be a strategy
- Call for help if you think someone will be hurt.
- When you start to talk, talk calmly in a non-confronting manner.
- Try to understand the aggressive behaviour
- Try to understand everything that the angry person tells and rephrase it back to him and bring focus on his anger.
- Use language like 'I understand why you would be upset and I see that you are very angry'
- Ask the person to suggest a non-violent solution for the problem.
- Suggest discussing the matter later in a calm and quiet situation

Conclusion

The psychological techniques described can be used to resolve many real-life situations experienced in many contexts following COVID-19. The steps are simple and can be used by front line personnel to resolve these situations.

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Yoga and COVID-19: A New Role for an Ancient Science

Yoga is an ancient way of right living that is to live in harmony with oneself (body, emotion and intellect) and nature. According to yoga philosophy, the word 'hatha' comes from roots 'ha' which means the sun and 'tha' meaning the moon. Basically, all yogic practices aim at aligning an individuals' bio-rhythm with that of nature, thereby improving overall health. Yoga advocates a lifestyle based on the principles of '*yamas*' and '*niyamas*' which are fundamental ethical precepts. There are five *yamas*: truth, non-violence, moderation in activities, non-stealing & non-hoarding; and five *niyamas*: cleanliness, contentment, austerity, self-introspection and surrender to a higher principle in life, respectively. Apart from these behavioural components, yoga lifestyle also involves practice of physical postures (*asanas*), breath regulation (*pranayama*), control of senses (*pratyahara*) and meditative techniques (*dharana*, *dhyana* and *samadhi*).

The COVID-19 pandemic has caused significant psychological distress worldwide. A meta-analysis of 300 studies by Segerstrom & Miller, reported an inverse relationship between psychological stress and parameters of the immune system in human participant. Yoga based lifestyle appears to be a suitable strategy for enhancing wellness in these unusual times where there is reduced physical activity and increased emotional distress. In addition, a number of studies have demonstrated usefulness of yoga-based lifestyle modification in improving disease-related outcomes in common non-communicable disorders such as type 2 diabetes and hypertension, which also contribute towards mortality related to COVID-19 infection. Yoga-derived breathing and postures have also been reported to improve gas exchange in patients with cardiac disorders and in participants exposed to high-altitude hypoxia. Yoga practices have also been used for increasing oxygenation in patients suffering from chronic obstructive pulmonary diseases. These techniques may also be useful for COVID-19 patients as the primary organ system affected is the respiratory system.

During the current period of lockdown due to COVID-19 pandemic, the NIMHANS Integrated Centre for Yoga (NICY) has initiated online yoga sessions (tele-yoga). A literature search (of both ancient yogic texts and modern scientific research) and opinion of experts in the field of yoga therapy was combined to design a 40-minute yoga module which primarily aims to reduce psychological stress,

enhance lung functions and strengthen immunity. The module was developed in such a way that religion or faith-based practices and those which involve lying down have been excluded; this increases the feasibility and acceptability of the module. Most of the practices can be performed while sitting on a chair.

The yoga module starts with warm-up practices which involve coordination of body and breath. This is followed by breath regulation: 'sectional breathing' practice which involves holding the breath after complete inhalation (which may help gas exchange by stretching the alveoli of the lungs). This is followed by a sequence of fast breathing followed by slower breathing practices to ensure balance in autonomic activity. The module ends with the practice of *Nadanusandhana* (sound resonance) that involves chanting sounds of A, U and M and feeling their resonance in different parts of the body.

In the last week, more than 1000 people who are confined to their home due to the current lockdown have participated in the tele-yoga sessions conducted by NICY. The participants have been logging in for the sessions scheduled at either 7 am or 11 am, five days a week, according to their convenience. All necessary precautions are being given before each practice. The module has been found feasible across all age groups, in both genders, with no major side effects. We recommend that it should be practiced on an empty stomach (3-4 hours after a full meal and 2 hours after snacks).

Details of the 40-minute tele-yoga module for improving mental and physical well-being

A. Breathing techniques - Sitting Position (*Prānāyāma*; total of around 30 minutes)

- i. Hands in and out breathing (Figure 2): Breath in and spread your hands wide; breath out and close. Synchronize hand movements with your breath. Perform 10 rounds.
- ii. Hand-stretch breathing (Figure 3): Interlock your fingers and keep them on your chest. Breath in stretch the hands out with keeping the fingers interlocked, breath-out and come back. Do the same practice again at 135 degrees and 180 degrees above the head. Repeat each for 10 counts.
- iii. *Vibhagiya pranayama* (Sectional or Square breathing; 3:3:3:3): Deep breathing with awareness on the natural respiratory movements of the lower, middle and upper chest. Inhale deeply for 3 counts, hold the breath for 3 counts. Now, slowly exhale or 3 counts and retain emptiness of breath for 3 counts. Repeat this cycle for 9 rounds.
- iv. *Kapalabhati* Breathing (Skull shining breath): Flapping of abdomen with active exhalation and passive inhalation (those with blocked nose should perform with mouth wide open); 80-120 strokes per minute for 2 minutes followed by gap of 1 minute and repeat the cycle one more time.
- v. *Bhastrika* Breathing (Bellows breath): Forceful and rapid inhalation and exhalation. This has to be practiced for 3 cycles, each of 20 strokes. One inhalation and exhalation make one stroke. 20 strokes followed by gap of 30 seconds.

- vi. *Nadishuddhi* (Alternate nostril breathing): Inhale slowly from left nostril, exhale from right; then inhale from right and exhale from left. This makes 1 cycle: 9 cycles.
- vii. *Ujjayi* breathing (Victorious breath): Inhale and exhale deeply while constricting your throat such that a sound of friction of air in the throat region is heard during inhalation as well as exhalation. Try to make exhalation longer than the inhalation. Repeat this for 9 rounds
- viii. *Bhramari* (Humming bee breath): Inhale deeply, keep the mouth closed, gently touch the tip of the tongue to the upper palate and produce humming sound. Try to make exhalation longer than the inhalation. Repeat this for 9 rounds. Keep the eye closed during the practice and feel the vibrations in the head region. 9 rounds 1 cycle.

B. Relaxation (around 10 minutes):

- i. *Nadanusandhana*: Relaxing the joints and muscles consciously from toes to head with chanting of the sounds: AAA (with awareness on chest), UUU (awareness on neck region) and MMM (awareness on head region) - 5 rounds each sound (5 minutes)
- ii. Silence with awareness of the present moment (listening to the neutral sounds in surrounding without judging) (1 minute)
- iii. Positive resolve in the mind: “I am completely healthy, we are all connected, we are in harmony with nature” (1 minute).

The video of the above yoga module is available on the NICY website (<https://nimhansyoga.in/>) and YouTube <https://www.youtube.com/watch?v=qsK7SAfajoM>.

We strongly recommend that the practices should be performed under the supervision of a trained yoga instructor or strictly following the instructions in the video to derive maximum benefit and avoid adverse effects.

Conclusion

Yogic practices aim at aligning an individuals' bio-rhythm with that of nature, thereby improving overall health. Yoga based lifestyle appears to be a suitable strategy for enhancing wellness in these unusual times where there is reduced physical activity and increased emotional distress. Further, regular practice of yoga has been shown to boost immunity, improve lung capacity and ensure stabilisation of diabetic and hypertension status. The online yoga sessions initiated by NIMHANS (<https://nimhansyoga.in/>) incorporates the best practices in this regard.

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Use of Digital Platforms in Training and Support - COVID-19 & Beyond

Introduction

The lockdown in response to COVID-19 has meant travel restriction, school closures, and recommendations not to gather in large groups. To overcome this there has been an exponential demand in digital-enabled learning and support. There are many digital tools used for training as well as support. This whole domain is dynamic and evolving. The following chapter is based on the tools and practices used in building capacity by using the Virtual Knowledge Network ECHO model of NIMHANS Digital Academy. In the references section, one can find important articles in this area.

This chapter below has two parts

1. Training perspective: Educator or trainer
2. Support perspective: Health seeker (patient, relatives)

1. Training perspective: Digital Platform

There are two main components of knowledge delivery and skill transfer.

Synchronous/ Realtime	<i>Synchronous e-learning</i> , commonly supported by media such as videoconferencing and chat, has the potential to support learners in the development of learning communities. Learners and teachers experience synchronous e-learning as more social and avoid frustration by asking and answering questions in real-time
Asynchronous/ Anytime	<i>Asynchronous e-learning</i> , commonly facilitated by media such as e-mail and discussion boards, supports work relations among learners and with teachers, even when participants cannot be online at the same time. It is thus a key component of flexible e-learning. Many people take online courses <i>because</i> of their asynchronous nature, combining education with work, family, and other commitments.

A. Synchronous: The most common and widely used is the multipoint videoconferencing. Video conferencing is a highly convenient use of technology that allows users in different locations to hold face-to-face meetings. This can be used to disseminate the information to frontline health care providers and communities about the best practices on COVID-19 as a tele-education (one to many) (Figure 1) or telemedicine (one to one). These are hosted in the cloud and easily accessible by any internet-enabled device, including the smartphone.



Fig 1. Remote Community Health providers (spokes) joining with NIMHANS Experts (Hub) team by both mobile app and PCs.

Table 1 shows the common digital educational tools and their features which can be helpful to fulfil the objective of synchronous training.

Table 1: Common Digital Education tools for synchronous training⁴

Features	Zoom	Skype	Google Hangout	Go To Meeting
Education friendly	YES	YES	YES	YES
Whiteboard	YES	No	No	YES
App-based (Android and iOS)	YES	YES	YES	YES
File sharing	YES	No	YES	No
Tele-education (one to many)	YES	YES	YES	YES
Tele-medicine (one to one)	YES	YES	YES	YES
Maximum participants	Upto 300 (Pro version) & upto 100 (free version) for 40 min	Upto 50	Upto 250	Upto 250
Cost	Free for 40 min (Basic) for 100 participants. Paid version can handle upto 100-300 participants	Free for basic	Need to have G suite account	Not free
HIPAA compliance	Yes	No	No	No
Polling questions	YES	No	No	No
Chat	YES	YES	YES	YES
Slide/Screen Share	YES	YES	YES	YES
Audio calls	YES (toll-free number)	YES (toll-free number)	YES (toll-free number)	YES (toll-free number)
Recordings	YES	YES	YES	YES
Social Media Integration	YES	YES	YES	YES
Cloud Storage	YES	YES	YES	YES

B. Asynchronous: A cloud-based learning management solution can be used for e-learning purposes. The application could be accessed anytime from a desktop or mobile device. The objective was to engage the health care providers in the learning process and consolidation of the knowledge and skills about emerging investigation and treatment of COVID-19 worldwide. Table 2 shows the commonly used digital tools for asynchronous training at Virtual Knowledge Network, NIMHANS Digital Academy.

Table 2: Digital educational tools for ongoing support via asynchronous platform ^{5,6}

Name	Brands	Comments
E-learning: Learning Management Solution	Google Classroom TalentLMS Edmodo Blackboard	Real-time feedback, self-assessments, simple interface, extended time for completion, and topic relevance
Multimedia :Video/Diagram/pictures	Screencast O Matic Snagit Camtasia Infographia Flipbook	Enhance the quality of training Ideally less than 15minutes
Audience Participation	Slido Mentimeter	In-classroom participation and encourage group problem solving Anonymity helps in engagement without fear
Response collections/ Health records/Assignment	Jotform (HIPPA compliant) Google form	For patient data collections, HIPPA compliance is advised
Text message/Whatsapp	Connecting learner	One of the cheapest solution to keep the group united

2. Support for Health seeker: Patient or caregiver

Technology can play an important role to make authentic information available to patients or caregivers.

The following table shows the common platform for the Patient or caregiver. (Table 3)

Table 3: Digital tools for the patient

Source	Goal
Website/blogs	Health information
Online formal education	Goal-directed, specific education ex: COVID-19 learning certificate WHO https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/online-training
Support/chat group	Socialization and Networking
Social media	Easy and convenient
Selfcare or self-assessment and Decision making	App and bots

Figure 4: Step-based approach to develop a digital Training platform

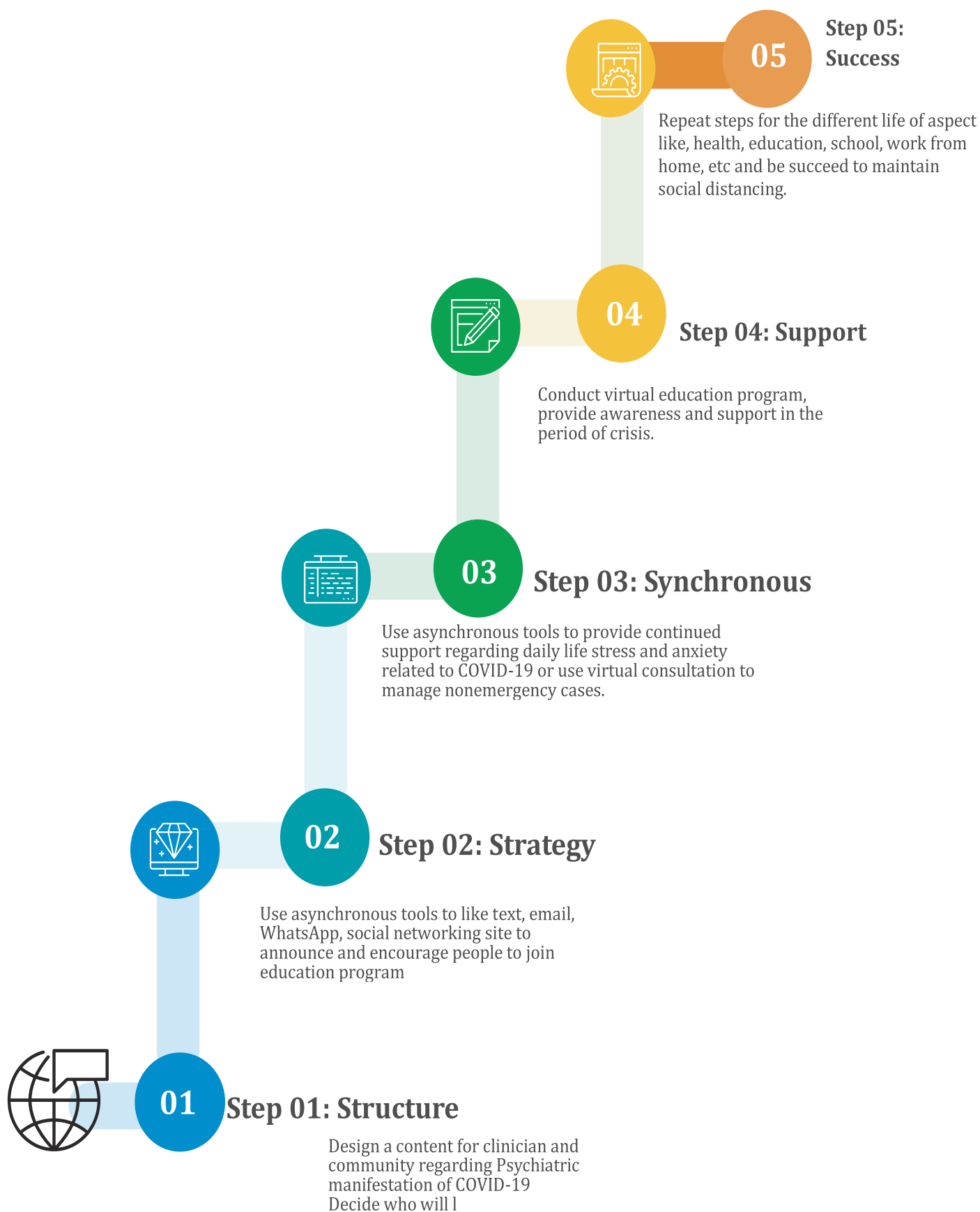
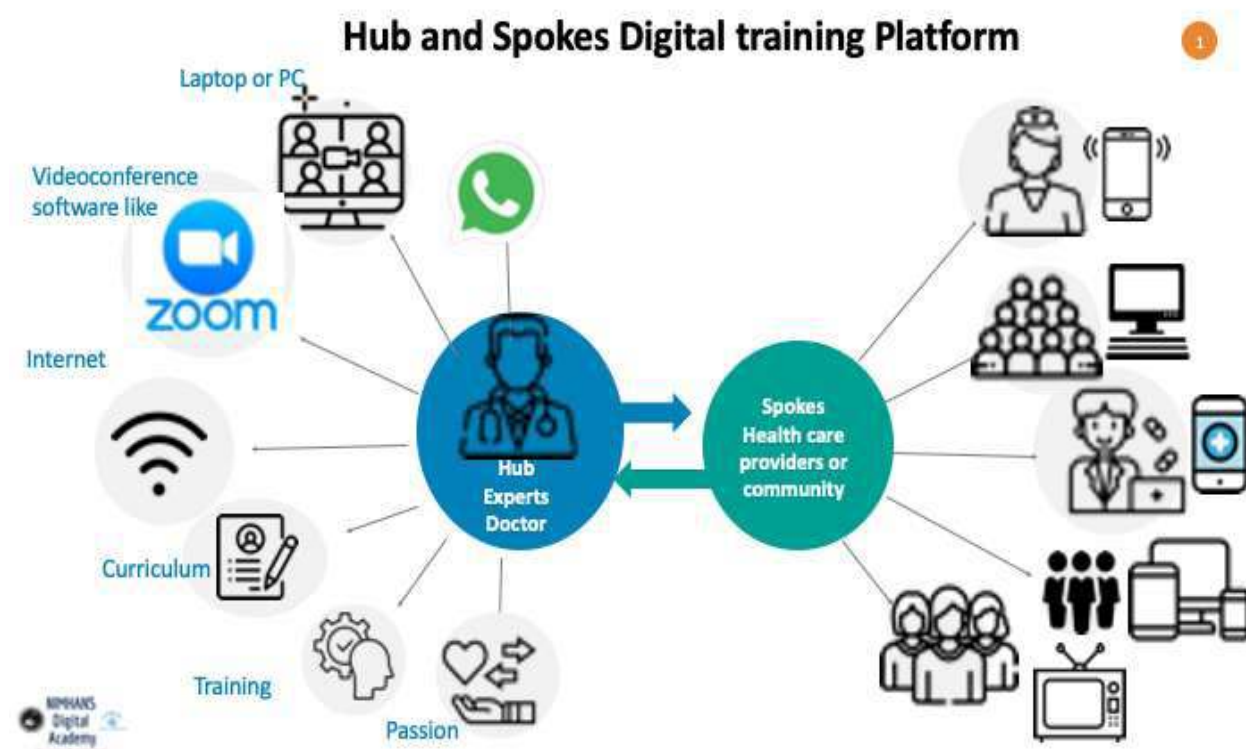


Figure 5: A low-cost model of Digital Training platform



Conclusion

Delivering training and support through technology has many benefits. The digital platform is helpful to experts in providing training, mentoring, and dissemination of knowledge. The structure and a low cost model are mentioned in figure 4 and figure 5. The patient/caregiver can use updated web-based factual information to follow best practices. Hence the technology can be a great enabler in this COVID-19 epidemic.

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PART B

COVID-19

Recalibrating Specialist Mental Health Services

B1

Protective Measures in Psychiatric Hospitals

This document provides information on the protective measures to be followed in mental health institutions during the COVID-19 outbreak. Since COVID-19 is a contagious illness, it is better to presume that every person has the suspected infection, especially under the following circumstances:

- ❖ Clinical symptoms of illness (e.g.- fever with cough).
- ❖ History of contact with an affected person
- ❖ History of travel to an area where the disease has had a breakout

Every mental healthcare facility is a potential source of transmission as patients who have active infection may come in contact with asymptomatic individuals. Therefore, a mental health professional (MHP) has to be up-to-date about the illness from reliable sources such as healthcare administration, experts or government websites. Depending on the infectious agent, the modes of transmission could be either via blood, bodily fluids, vectors, food, fomites, through air or droplet/aerosol transmissions, including spreading through multiple routes. In the case of COVID-19, the current consensus is that transmission is person to person through small droplets or from surface contamination. As there is no effective treatment, the principles of prevention need to be strictly enforced, in the form of social distancing [stay more than 1 meter (3 feet)] and high standard of personal and surface sanitation.

This chapter aims to address practical aspects to reduce risk in a busy out-patient psychiatric practice and in-patient settings with low-resources.

Out-Patient Services

The MHP needs to consider the following:

1. If possible, patients to be seen on an appointment basis. Out-patient appointments should be staggered. This helps to prevent over-crowding

2. Post visual alerts (in appropriate languages) in the clinics/ examination rooms instructing patients and escorts (e.g., family, friends) to notify health care personnel of COVID-19 symptoms or risk.
3. Principle of only “one-attendant-per-patient” to be enforced
4. Social distancing (at least 1metre or more) should be practised as much as possible in the waiting halls, and consultation rooms.
5. At the point of intake, assessment of COVID-19 risk may be done using ICMR-COVID-19 screen. High-risk patients/bystanders to be triaged at this point. (Use ICMR –COVID-19 screen to assess risk -Score of ≥ 4 indicates high risk (See Annexure)
6. Assessment of patients with a higher risk of COVID-19 to be in the exclusive room allocated for the purpose. The room needs to be sufficiently ventilated
7. Provide face masks to symptomatic patients to prevent the spread of infection through cough and sneezing.
8. Violent or disturbed patients should be examined separately or in a separate room identified for the purpose to prevent contact with other patients'.
9. Special attention to ensure vulnerable populations are seen early - elderly, pregnant, children, and those with pre-existing medical conditions.
10. OP assessments should be focussed on relevant history and examination, and a quick management plan to be derived. Detailed assessment can be done after the crisis has been averted.
11. To explore telepsychiatry options, especially for patients who are stable and require only a repeat prescription. (See section on Telepsychiatry)
12. Consider giving a repeat prescription for a longer time. This helps to reduce contact-time and reduces the frequency of visits to the MHP
13. Hand washing as per the WHO recommendations i.e. for 15-20 seconds with all 8 steps using soap & water/sanitizer should be practised. Hand-washing must be followed in these situations:
 - Before touching a patient
 - After a procedure involving exposure risk to body fluids
 - After physical examination

- As part of safe injection practices
- Before medication preparation
- After touching the patient's objects/surroundings.

In-Patient Services

There are three main likely sources of COVID-19 infections within in-patient settings in psychiatric institutions:

1. Visitors
2. Health care professionals
3. Patients.

So, in addition to improving general sanitation for infection control, restrictions to sources of infections can be preventive.

These aspects are being discussed in detail below:

1. Enhanced cleaning:

- Cleaning should be ideally every 4 hours or as frequently as possible.
- Cleaning should follow recommended standards with floor mopping with soap water, normal water, and 1% hypochlorite solution (or bleach).
- Surfaces (table, chair) needs to be cleaned with disinfectant having at least 60% alcohol
- Dining areas to be cleaned before and after food is served.

2. Restrict Visitors:

- Restricted to the essential individuals
- Allow access only to the visitors' area.
- Provide with a mask
- Hand sanitizer with soap and water as recommended before entering the ward (Visit WHO site for handwashing techniques).

- Not to be permitted if
 - having signs and symptoms of Upper respiratory tract infections
 - having a temperature $\geq 100^\circ \text{F}$
 - history of international travel or COVID-19 hot spot area in the past 14 days
 - contact history with an international traveller in the past 14 days
 - known or suspected of having COVID-19 positive status

3. Health care professionals

- Ensure nursing care by identified staff with decreased staff rotation
- Staff to be trained in hand hygiene/cough etiquette
- Hand hygiene to be ensured before entering/leaving unit, in addition to activities related to patient care
- Staff to be provided a mask
- Pre-screening of staff for fever before the shift. If having features of infection, ensure exclusion from duty

4. Patients

- Restrict admissions
- Only one-bystander per patient who has no risk of COVID-19 or no features of COVID-19 infections
- Review whether stable patients can be discharged
- Ensure patients who are older and those with medical comorbidities are placed in less crowded areas
- Create an isolation ward within the long-stay facility.
 - Any patient having signs and symptoms of URTI to be transferred to the isolation ward

- Provide food separately
- Restrict interactions with other patients
- If symptoms worsen or develop other features of suspected COVID-19, shift to the nearest testing centre
- Teach all the patients' regarding social distancing
- Teach all the patients' regarding hand hygiene
- Encourage to greet by NAMASTE rather than handshaking.
- Monitor body temperature of long-stay patients at least once in a day
- No group interventions to be conducted in the ward.
- To ensure the dining area is less crowded, provide foods over a staggered period
- If any patient is tested COVID-19 +ve, inform health authorities and follow instructions.

Personal Protection Equipment & Sanitation

The use of Personal Protective Equipment (e.g. gloves, gowns, masks, goggles, visors, etc.) and enhanced sanitation measures should be employed as per prevailing recommendations for COVID-19. *The current guidelines for PPE and sanitation are reviewed in a separate section in this document and needs to be complied as far as possible.*

Conclusion

In any infectious disease outbreak including COVID-19, psychiatric patients have an enhanced risk of infection and poor outcome. Steps must be taken in the background of COVID-19 to reduce risk among patients and staff in psychiatric settings.

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Recalibrating District Mental Health Programs' During COVID-19 Pandemic

In March 2020, the World Health Organization (WHO) declared COVID-19 as a pandemic. The mental health impact of COVID-19 is widespread with every stratum of the society affected. The WHO recommends that the additional mental health support is best provided along with the general health services, by harnessing the existing structures/resources in the community. The DMHP provides community mental health services in over 600 districts in India. Given this, the DMHP becomes the most appropriate vehicle to deliver mental health care to local communities. In addition to clinical services, existing DMHP teams are involved in training and capacity building activities.

It is in this context that this chapter discusses two aspects-

- Steps to be taken by DMHP teams to ensure greater safety of patients/medical professionals utilising clinical services through camps during infectious outbreaks
- Strategies to optimize DMHP output to tackle mental health issues in the community

Steps to protect patients and health personnel utilising clinical services in DMHP

In times of pandemic like COVID-19, the public health system will be under tremendous stress responding to the overwhelming needs of the communities. At the same time, it is also a necessity to take precautions to minimize person to person contact to protect patients and healthcare personnel. Simple steps that can be easily followed in DMHP out-patient departments (OPD) are

1. **General fever screening for all patients who seek psychiatry consultations:** This screening can be done by the PHC nurse or DMHP nurse and should be completed as soon as the patient enters the OPD. Those with symptoms of fever and/or upper respiratory infections can be sent for evaluation of fever on a priority basis in addition to the quick management of psychiatric problems. These patients can be seen earlier.

2. **Segregate patients into**
 - a. *Those who have come for only repeat prescriptions:* Arguably, in any DMHP OPD, this group will form the largest proportion. This group can be easily and quickly dispersed by giving repeat prescriptions. Probably, a nurse can complete this job in a short period.
 - b. *Those who would want more time to consult doctors:* these are the ones who will take more time and can be dealt with accordingly.
3. **Personal Protective Equipment (PPEs) and hand hygiene of the place:** Of course, PPEs are reprimed commodities during pandemics such as these, but the least minimum things such as 3 layered face masks, provision of soap and running water and sanitizers should be made available in the clinics.
4. **Social distancing:** Patients and all the other people can be made to adhere to social distancing norms, by reducing the crowd and maintaining adequate distance between each other.
5. **General Health Education to patients:** can be done by the nurses or any other mental health professionals about
 - (a) correct ways and frequency of handwashing
 - (b) maintaining social distance
 - (c) correct ways while coughing and sneezing
 - (d) importance of staying indoors
 - (d) avoid crowding
 - (e) avoid touching eyes, nose and mouth

STRATEGIES

1. ***Provision of Mental Health services to the COVID-19 affected/suspected individuals***
 - a. Integration of mental health services and activities into the existing community strategies, community outreach, case identification, contact tracing as well as care provision activities at the health care facilities and the quarantine sites.
 - b. The services can be carried out even at the Primary Health Centre level.
 - c. Identification and addressing the mental health and well-being of the frontline workers like Health Care workers, case identifiers and other volunteers.

2. ***Improve the coordination of DMHP team*** and other working Government agencies and mandatory participation of the mental health team in all sectoral meetings

3. ***Reorganizing the existing DMHP services***

- a. Establishment of a clear inter-sectoral/agency referral pathway so that all the people with mental health care needs can be promptly directed to the DMHP team.
- b. Training the DMHP team members regarding the mental health issues during the emergencies especially in the context of COVID-19
- c. Training all ground-level health workers (PHC doctors, nurses, pharmacists, ANMs, ASHAs and others) about the mental health issues related to COVID-19 (how to identify and mitigate the mental health concerns)
- d. The DMHP team can train all the frontline workers including the nurses, ambulance drivers, volunteers, case identifiers, teachers and other community leaders including non-health workers in quarantine sites on essential psychosocial care principles, psychological first aid and how to make referrals through online platforms.
- e. Taking steps to ensure access to medication and daily care to the people with pre-existing mental health issues
- f. Adapting less conventional methods to continue support to people but minimise the risk of infection like usage of video, phone calls, social media

4. ***Building on local care structures***

- a. DMHP team can collaborate with other social and welfare programs, Educational, Governmental and Non-Governmental agencies and in places which lack these, to work with main sources of care like social groups, families and religious leaders and faith healers giving them knowledge of COVID-19, providing mental health support (how to mitigate symptoms and to know when to refer).
- b. Telephone hotlines are effective in supporting people in the community who are distressed or worried. DMHP team can train the Telephone hotline staff/volunteers and supervise in providing the mental health services in the context of COVID-19

5. ***Whole of Society approach***

- i. This approach addresses the mental health issues of the whole population irrespective of either direct or indirect contact with the virus. These activities include promoting self-care strategies, message to reduce relying on social media messages, normalization messages regarding the anxiety, worry of the people and clear and accurate information of COVID-19 including how to access help if one becomes unwell.

6. *Addressing the Mental health of frontline workers*

- i. DMHP team can provide access to all the psychosocial material for the workers involved in the COVID-19 outbreak emphasizing that it is of equal priority as physical safety. Regular review of the frontline workers' psychosocial status to identify risks, emerging issues and shape the response to their needs. For the frontline workers, taking adequate breaks and debriefing are as important.

7. *Development of toolkits/resources*

- a. The team can be involved in developing toolkits for all stakeholders including teachers, parents, and families including messages on preventing the spread of the disease like handwashing games and rhymes

8. *Addressing the mental health issues of people in home isolation/Quarantine*

- a. Members of the DMHP team can contact people in home isolation/Quarantine through telephonic calls/social media platforms once in 2-3 days and check for symptoms of anxiety, panic, depression in the people. If they have issues, to provide counselling over the phone.
- b. Checking for any past history of psychiatric illness/treatment and also any family members with a history of psychiatric illness and address if any issues.
- c. They can also help them in activities for well being during that period. Examples of some of the activities are
 - i. Physical Exercises (yoga/stretching)
 - ii. Relaxation exercises like breathing, meditation and mindfulness
 - iii. Reading books/magazines
 - iv. Reducing time spent looking at fearful images on TV, listening to rumours
 - v. Search information from reliable sources (decrease the time spent in looking for information related to COVID-19 to 1-2 times per day rather than every hour)

9. *Considerations for special populations*

- i. Older adults are particularly vulnerable to COVID-19 due to limited information sources, weaker immune systems, comorbid medical and mental health conditions such as cognitive decline/dementia. Provide information in an easily accessible way like clear, simple language by calling them over phones. If possible, encouraging the family members to call their older relatives, teach them to use video calls and preventive measures.

- ii. If children need to be isolated, then provide a safe and alternative environment and a team member like a social worker or an equivalent. Follow up with the child regularly. Ensure frequent contact via phone/video calls with family and provide reassurance. Engage children in activities which educate them about safeguarding like hand washing, imaginary stories /pictures of viruses which they can colour in fun games and explaining Personal Protective Equipment (PPE) so that they are not scared. Mobile phones, age-appropriate games, cartoons and age-appropriate movies, child-friendly videos, relaxation, periodic positive pep talks and prayers, etc can be allowed to engage children.

10. *Mental Health IEC activities*

- a. DMHP team can incorporate the COVID-19 specific mental health Information, Education and Communication (IEC) activities with the help of local sources like print/electronic media.
- b. IEC activities targeting general public dealing with stress
 - i. Conveying the message to the public that it is normal to feel sad, distressed, worried or scared during the time of crisis.
 - ii. To talk to family and friends and keep in touch with them through phone and social media platforms
 - iii. Not to use tobacco/alcohol to cope with their emotions.
 - iv. To seek for physical and mental health needs if required.
 - v. IEC activities should also address the social stigma and discrimination which can be associated with COVID-19, including towards persons who have been infected, their family members and health care and other frontline workers.
 - vi. The team can prepare FAQ on Mental Health, Mental Illness and COVID-19

11. *Leadership in the Team*

- i. All the health care workers in the team are stressed in this time of crisis. The team leader should make sure to have clear and open communication with all team members.
- ii. Communicating with the team members that feeling stressed is NOT a reflection of being weak or not able to do work.
- iii. Encourage to adapt the strategies that helped in coping with stress in the past
- iv. Rotation of the workers from high stress to low-stress functions.

12. Long term perspective

- a. Maintaining social contact with people who might be isolated using phone calls or text messages
- b. Sharing key factual messages within the community, especially with individuals who don't use social media
- c. Providing care and support to people who have been separated from their families and caregivers
- d. However, it is important to follow up and provide care for the people who are out of Home isolation/Quarantine and people who have lost their family members not only during the COVID-19 pandemic but also for the long term.
- e. Building the capacity of the health and non-health agencies will help in the preparation for future emergencies.

Conclusion

The DMHP has a critical role in the mental health response to the COVID-19 pandemic in India. Alongside it needs to recalibrate its existing services to reduce the risk for its service users and health care personnel.

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Practical Steps in setting up Telepsychiatry Consultations in Infectious Outbreaks

In the background of the COVID-19 pandemic, the Government of India has issued guidelines that the patients may be discouraged to come to the hospital to ensure greater focus on more severely ill COVID-19 patients and also reduce the community spread of the pandemic. This has meant that many psychiatric patients who require help, may have reduced access to care, increasing the likelihood of relapse. However, advancements in digital communication (telepsychiatry) has meant that there are means to overcome this to a great extent.

This chapter aims to provide a step-wise strategy for **Telepsychiatry Video Consultation**. During the ongoing COVID-19 pandemic, it may be a safer alternative to provide infection-proof consultations from both the user (patients and their family) and the provider (psychiatrists).

What is telepsychiatry?

It means that patient care is provided by the psychiatrist to the service users employing digital technology.

Devices for Telepsychiatry Video Consultations (VC)

- Consultations must be simple, which means both the health care provider and the patients can handle it themselves.
- **Device at the psychiatrist's side:** It is recommended that the psychiatrist/medical professional use a desktop/laptop with an inbuilt or externally fitted camera/microphone. This would ensure better visibility on a wider screen. The laptop has an additional advantage of easy portability. If they are not available, a smart phone will suffice.

- **Device at patient's/family's side:** A smartphone is a popular choice with them.



Figure 1: Devices at both ends

Other technical aspects in telepsychiatry consultations

- Regular smartphones commonly have applications to connect for video consultations such as WhatsApp, Skype call, Google duo, etc.
- Recently launched **VoLTE (Voice over Long-Term Evolution) technology-based smartphones** are even better as they have a high-speed wireless communication for mobile phones. The inbuilt video conference software enhances the experience of the high definition video call.
- Make sure the software used for VC has at least **end-to-end encryption**. End-to-end encryption means only the health care provider and their patients or his/her family can visualize video/audio, and nobody else, including the service provider, has access.

Internet Speed for Video Consultations

- Any high speed/broadband internet/4G enable internet should be sufficient.

Skype recommendation of minimum internet speed for video call

- For simple video calling, 300 kbps (kilobits per second).
- For a high-quality video call, 500 kbps.

For High Definition video, at **least** 1.2 Mbps (Megabits per second) is required.

- Majority of the service providers can provide good quality speed with 1.5 Mbps

Modes of Telepsychiatry Video consultations that can be considered in COVID-19 outbreaks

A. Direct To Patient

- VC may be used for triage, screening, and to provide the first consultation with early follow-up.
- Aftercare: follow-up of already consulted patients. This is important in psychiatry to prevent possible relapse/recurrence of psychiatric disorders.
- Sub-clinical / milder illness: To provide reassurance or counselling or even brief psychotherapies.

B. Collaborative Video Consultations (CVC)

- It is VC to patients with some intermediary medical or paramedical staff at the patient's end. It means that the patient consults first the intermediary medical/para-medical staff, who in turn consults the Psychiatrist.
- CVC with other specialists/ family doctors/PCDs/nurses/ pharmacists

- C. Home Consultation:** Home Visit by a Nurse /Social Worker augmented with Tele-psychiatrist VC, especially during an emergency.

Scheduling Appointments of Telepsychiatry Video consultations

- It is a challenging issue in a disaster.
- Often, patients approach the treating medical professional for their follow-ups, and there is a mutual agreement to initiate telepsychiatry consultation.
- If the medical professional has planned follow-ups, it is better to remind them one or two days in advance by SMS, audio call etc. and agree mutually for a planned VC appointment. This is especially required in subjects with psychotic disorders or those with poor social support.

Consent / Privacy issue in providing Telepsychiatry Video Consultations

- Written Informed Consent should be taken in normal situations as there may be privacy concerns in VC.
- During emergencies, at least verbal consent should be obtained for VC.
- Specifically, mention that there would not be any video recording on either side, and the security of the videoconference/internet is dependent on the service provider's policy. Also mention the limitations of VC such as issues of having to make a clinical judgement after limited assessment,

not to be used in emergencies, physical examination remains virtual and the need to have in-person consultations if there is deterioration in mental state.

What to do in Telepsychiatry Video consultations

- Start with identifying yourself and ensure you verify the identity of the patient/family member.
- Take informed verbal consent and explain the limitations of VC
- Ensure that your clinical assessment is brief and to the point. Specifically, ask for any concerns including medication side-effects.
- Full physical examination (FPE) is the cornerstone of regular in-person medical consultations. This may not be possible in VC. Only, a partial physical examination which may be called '**virtual physical examination**' (VPE) (only the inspection part of the standard physical examination without palpation, percussion, and auscultation) can be conducted in video consultations. The principle of 'something is better than nothing' is applicable in VC.
- VPE can be used to assess the side effects of antipsychotics such as extra-pyramidal symptoms like tremors, slowness in gait, akathisia, dystonia, etc.

Prescription of Telepsychiatry Video consultations during infectious outbreaks

- There is no standard way to send a prescription to patients.
- During the current COVID-19 outbreak, a scanned copy of the regular prescription can be sent to the patient soon after VC.

Contraindications for Telepsychiatry Video consultations

- Research till date suggests that there are no contraindications for the regular assessment of any psychiatric patients through VC.

However, medical professionals should be aware that in the likelihood of medical emergencies or drug side effects, which require immediate interventions, they should immediately stop the VC and ensure referral to an emergency setting.

Advantage of VC during Infectious outbreaks

- Ensures continuity in care when there are general restrictions during the infectious outbreaks
- Less expensive

- Lesser risk for infections
- Telepsychiatry may be used for supportive counselling of people who are in quarantine both at hospital/home owing to suspected or confirmed COVID-19
- Greater satisfaction of patients and their families with VC in comparison to other means such as the audio/message-based consultations.
- Multiple members can join from various locations in the same multipoint video conference.

Ethical and legal aspects of Telepsychiatry Video Consultations

On 25th March 2020, the Medical Council of India released detailed documents with the title “Telemedicine Practice Guidelines- enabling registered medical practitioners to provide healthcare using Telemedicine” (<https://www.mohfw.gov.in/pdf/Telemedicine.pdf>) which permits medical practitioners to use telemedicine platforms legally. The document has numerous other details and is a useful and authentic resource for any telemedicine practitioner.

Conclusion

Telepsychiatry consultations need to be mainstreamed to ensure adequate care of patients with mental health issues during the current COVID-19 pandemic. Easy availability of digital platforms, even in rural areas, meaning that it is easily accessible.

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Severe Mental Illness in Pandemics like COVID-19 Issues for Consideration

The current pandemic due to the novel Coronavirus (SARS-COV-2), COVID-19, has resulted in considerable stress to the health systems throughout the world. In both developed and developing countries, the health resources are prioritized to handle the pandemic. The immediate need to prepare for the pandemic results in the reallocation of all existing resources to the treatment of the ill and to stop the spread of the infection. Pandemics, like other natural disasters, negatively affect the mental health of the community in general and those with preexisting mental illness in particular. While natural disasters also result in significant stress and strain to the health systems, the relative non-involvement of other regions allows one to divert the health resources from other regions. However, in a global pandemic like the current COVID-19, each country and region has to handle the crisis locally. Hence, in a pandemic people with severe mental illness, who need long term, continued medical management and depend on the government services are disproportionately affected as a considerable proportion of resources on which the patients depend to survive are diverted for other causes. As the focus during a disaster is on stress and anxiety-related disorders, there needs to be literature on the specific needs of people with severe mental illness during pandemics. Considering that a considerable proportion of patients with severe mental illness require continued management even during a pandemic, strategies to continue the care need to be developed. Otherwise, disruption to or absence of access to care can have serious negative consequences in patients with severe mental illness.

Continued care of severe mental illness during a pandemic

A majority of psychoses typically need long term maintenance treatment even though the patient may achieve symptomatic remission after the acute stage. The risk of relapse is considerably high in severe mental illnesses schizophrenia and bipolar disorder if the medications are discontinued. In a limited resource setting with already stressed families, relapse/worsening of symptoms could have serious consequences. This would also add further strain the compromised health resources. Though, understandably, handling the pandemic takes precedence, it is very important to ensure that the maintenance treatment is not discontinued for pre-existing severe mental illnesses. Considering the

difficulties in providing psychosocial care to these patients during a pandemic due to logistic reasons the management needs to focus on the continuation of pharmacological treatment in the community. As the treatment plan will be standardized in a majority of the patients with severe mental illness, the critical factor in them is providing access to the medications. A strategy based on the principles of triage can be employed to classify patients into different groups; (a) those who need access to medications only (b) who need a consultation to continue management on an outpatient basis (c) who need management in a hospital facility.

- a) As mentioned above, a considerable proportion of patients with severe mental illness may not be able to afford the medications and may require support from the government services to access the medications. The community services in the form of the District mental health program (DMHP) can be effectively utilized to provide home delivery of the medications to the individuals. The treating clinician may also liaise with the nongovernmental organizations working in the field of mental health care delivery. Further, liaising with the other health delivery organizations or companies providing home-based treatment for other physical conditions can also be involved to supply the medications to the patients.
- b) Telemedicine and teleconsultation can be effectively utilized to provide continued care to those who need out-patient based consultations and treatment. This would minimize the potential cross-infection in a hospital setting and would be protective to both the patients and health care workers. With the formulation of new telemedicine guidelines by the Medical Council of India, one can effectively utilize available audio-video platforms to consult and also provide the prescription. In situations where a teleconsultation is required (scenarios where a healthcare worker or another physician needs specialist consultation), the resources in primary health care centers can be utilized. The nurse/primary care physician at primary care centers or DMHP team members can contact the treating psychiatrist and continue the medication. Strict adherence to telemedicine guidelines is required to ensure the privacy and confidentiality of the patients.
- c) A small proportion of patients may need care in the hospital due to the worsening of the illness or relapse of an episode. The social and economic stress of the pandemic in addition to the potential disruption of routine activities could increase the chance of relapse. This small proportion of patients may need a visit to the emergency room. The emergency rooms would need structural reorganizations so that they can be decongested and social distancing can be achieved. All patients need to be screened using a screening tool and those suspected of the infection or having the infection need to be triaged. In all cases, till proven negative for infection, it is advisable for health care workers to follow universal precautions to protect themselves. The support staff involved in physical restraint should have access to personal protective equipment (PPE) and be trained to use PPE. In scenarios where the patient is likely to have increased psychomotor activity and may not adhere to social distancing, one may have to consider physical restraint to maintain social distancing. To prevent prolonged physical restraint switching to chemical restraints to be considered as soon as possible. To prevent cross-infection it is also advisable to minimize the time that a patient spends in the emergency setting.

- d) A minority of patients who have a significant risk of harm to self or others may need electroconvulsive therapy. However, electroconvulsive therapy services need to be judiciously utilized considering the potential risks of cross-infection to the patient as well as health care workers during the procedure. The treating psychiatrist needs to liaise with the ECT services. Psychiatrists in the community may have to refer such patients to a higher center where ECT services with proper precautions can be administered. A case-based decision need to be taken for those who are resistant to pharmacological treatment and stable on maintenance ECT in liaison with the ECT services.

Issues to consider in the pharmacological treatment of a patient with severe mental illness during a pandemic

- If the pandemic and associated limitations in the movement are likely to prolong it could result in a disruption of the supply chain of medications. If a disruption in the supply chain is anticipated, it is advisable to switch the patients to long-acting injectable antipsychotics to minimize the risk of rapid withdrawal-like supersensitivity psychosis. It is also advisable to switch to a medication with a production facility and distribution within the country so that the continued supply is ensured.
- Sudden withdrawal of medications like benzodiazepines, antidepressants, and antiepileptics could result in withdrawal symptoms as well as complications. A majority of the patients with severe mental illness would need long term treatment with benzodiazepines and abrupt withdrawal need to be avoided as this could result in rebound anxiety and violence in the community. Depending on the regulatory restrictions of the state, one may not be able to give e-prescription of a benzodiazepine over telemedicine followup. Hence, if regulations do not permit, all patients on benzodiazepines are preferably advised for a consultation through a primary care nurse/physician or DMHP services. It is advisable to shift to a long-acting benzodiazepine/ antidepressant from a short-acting benzodiazepine/antidepressant.
- In patients who are on treatment with lithium, withholding the medication or adjusting the dose may have to be considered as a few patients with COVID-19 are at risk of developing renal failure. It is also important to remember that patients who are on treatment with lithium should not be given NSAIDs because of the potential risk of renal failure. Unmonitored lithium use enhances risk for toxicity. Teleconsultations or video consultations should specifically ask / look for any symptoms and signs of lithium toxicity and patients should be informed of some simple measures to avoid toxicity.
- A few studies, though preliminary, have suggested beneficial effects of antimalarial drugs hydroxychloroquine (HCQ) or chloroquine in the treatment of COVID-19 infection. Hence, several countries have recommended the use of HCQ in people with COVID-19 infection and prophylactically in those suspected of COVID-19 infection, their close relatives and health care workers. Though rare, HCQ can prolong the QT interval and precipitate arrhythmia As several

antipsychotics and a few antidepressants are also known to increase the QTc interval, one needs to consider the potential precipitation of arrhythmia in individuals taking psychotropics. In all patients with severe mental illness, it is advisable to do an electrocardiogram and calculate QTc (corrected QT) before prescribing HCQ. In selected scenarios, where HCQ has to be given, one may have to consider withholding the psychotropic or change the psychotropic. In case of change, one may consider shifting from antipsychotic drugs which increase QTc interval (ex: Amisulpride, Ziprasidone, Asenapine) to those which do not increase (ex: Lurasidone, aripiprazole). Among the antidepressants, SSRIs are safer compared to tricyclic antidepressants (ex: Amitriptyline, Imipramine).

Treatment of a patient with severe mental illness and COVID-19 infection

With the spread of the infection in the community, every individual will be at risk of contracting the infection/ However, patients with severe mental illness are possibly at higher risk of contracting the infection in comparison with the general population. Disorganization symptoms, homelessness may result in non-adherence to the social distancing or movement restriction. These factors along with the absence of stable income during the pandemic may place these patients in high-risk situations and contact with others. As patients may not have access to the education material regarding pandemic or unable to comprehend the same due to the illness-related cognitive deficits, one may consider devising simplified education material for patients with severe mental illness. It is important to educate even those patients who are admitted to the hospital to ensure adherence to protective maneuvers like social distancing. As a few patients with severe mental illness may have poor health-seeking behavior and absent insight into physical illness as well, a delay in the diagnosis of the infection is possible. Hence, people with severe mental illness need to be considered as a high-risk group for infection during a pandemic.

The following issues need to be considered when treating a patient with severe mental illness and coexisting COVID-19 infection. Considering the potential risk of agitation in an isolated environment, it is advisable to allow the patient to interact with the family member/caregiver using video/audio call whenever a patient with severe mental illness is under quarantine or admitted to a COVID-19 hospital. As knowledge accumulates, several new treatments are being tried for the treatment of COVID-19 infections. The psychiatrist can liaise with the treating team as one needs to consider the behavioral side effect profile of these medications and potential drug interactions with the ongoing psychotropic.

- The experience with the medications used for the treatment of the COVID-19 infection is minimal and evidence is sparse. In the absence of controlled trials, one needs to consider the risk-benefit ratio before starting a specific treatment for an individual with severe mental illness.
- Similarly, it is also important to be aware that the side effect profile of these newer medications is not known in patients with severe mental illness. Several medications used for the treatment of COVID-19, namely HCQ, ivermectin, and corticosteroids are reported to cause psychosis and mood disturbances. Hence one needs to be cautious when treating a patient with severe mental

illness and watch for these side effects. Suicidal ideation has also been reported with HCQ and one preferably avoids the same in patients with recent suicidal attempts.

Conclusion

In conclusion, considering the possible higher risk of contracting the infection, patients with severe mental illness requires special attention. Continuation of community-based treatment is essential to prevent relapse or worsening of the severe mental illness which can add additional burden to the stressed health infrastructure. Technology platforms need to be widely used for teleconsultations to achieve the same. Given the lack of knowledge base, a clinical decision need to be made and treatment for COVID-19 needs to be individualized in patients with severe mental illness. Drugs for COVID-19 need to be used judiciously after considering drug-drug interactions and serious side effects in the form of arrhythmias in a patient with severe mental illness.

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Rapid Tranquilization in Infectious Disease Outbreaks

Introduction

Rapid tranquilization (RT) is often used in clinical practice as a last resort to de-escalate acutely disturbed behavior after appropriate psychological and behavioral approaches have failed. RT has an added risk during an infectious outbreak given the risk of spread to staff and others. Mental health professionals are also encouraged to try all non-pharmacological de-escalation techniques (read the section on Aggressive Behavior). This should be followed by attempts to give oral medications. The decision of giving RT need to be taken after clear consideration of both risk and benefits, when all other strategies have failed. Mental health professionals need to ensure a written record in the patients' files.

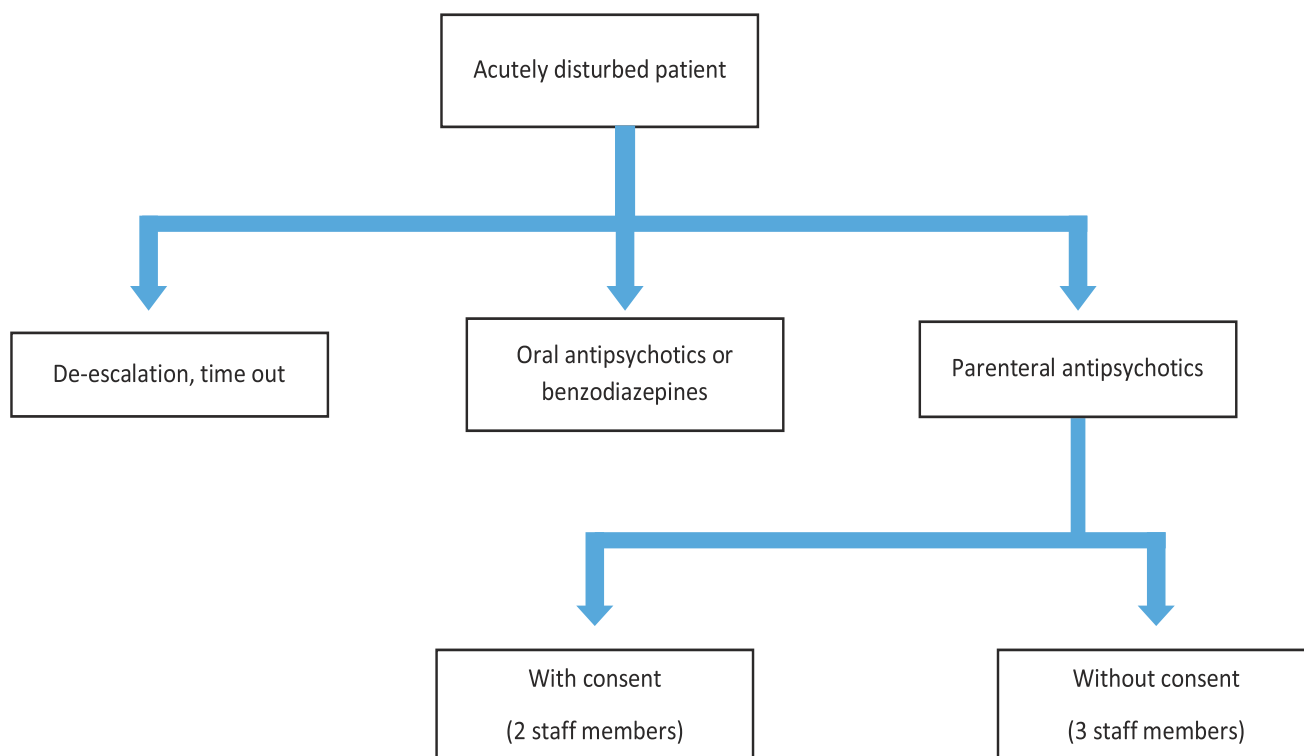
The recommendations here are based partly on research data and theoretical considerations, and partly on empirical experience.

Steps

1. Standard protocols should be followed for the management of acutely disturbed patient – drug selection, pretreatment investigations, etc. - as detailed elsewhere (Maudsley, 13th Edition)
2. Empirical recommendations specific to the management of COVID-19 patients
 - a. Personal protective equipment (PPE) should be worn as per the standard protocols wherever available
 - b. Not more than 2 (one nurse and one security) or 3 staff (one nurse and 2 security personnel) should be involved in RT to reduce the exposure to frontline workers.
 - c. Intramuscular (IM) is the preferred route of administration for RT compared to intravenous (IV) route

- d. Gluteal IM injections may be preferred over deltoid injections to increase the distance between respiratory secretion/droplet of the patient and the staff
- e. IM olanzapine has the following advantages over IM haloperidol
- Minimal effect on QT_c interval; as we are aware the medications used in the management of COVID-19 such as hydroxychloroquine and azithromycin are known to increase the QT_c interval
 - Possible cardiac injury by COVID-19 in some of the patients may be a risk factor for sudden cardiac death; systematic research is needed
 - No need for promethazine or lorazepam injections
 - Lesser risk for EPS
- *PS: IM olanzapine has been shown to cause respiratory depression; should be taken into consideration in a patient with COVID-19; start with a low dose (5 mg) of olanzapine and a maximum daily dose of IM olanzapine should be less than 15 mg. Benzodiazepines also carry the risk of respiratory depression. Whenever needed, a low dose of short-acting benzodiazepines such as lorazepam, midazolam should be used.
- f. Whenever IM haloperidol is used, start with a low dose (2.5 to 5 mg of haloperidol) along with 12.5 to 25 mg of IM promethazine. Maybe preferable to keep the maximum daily dose of IM/oral haloperidol to less than or equal to 15 mg/day.
- g. Should wait for at least 45 minutes before repeat RT
- h. Regular monitoring of vitals (blood pressure, respiratory rate, pulse rate) should be done once in 15–30 minutes
- i. Concurrently, where feasible, ECG and lab investigations need to be done to ascertain the electrolyte, blood sugar, renal function and other important parameters as per the emergency medicine guidelines
- j. If a patient develops dystonia secondary to parenteral antipsychotic, 25 mg, IM promethazine should be used.
- k. Avoid using multiple antipsychotics for RT

- l. Wherever possible informed consent should be obtained from the patient. Most often, the patient may not be in a clinical state to offer informed consent - for such circumstances, consent from a legal guardian or caregiver should be taken as done for minor intervention procedures.
- m. For doses of oral antipsychotics in the management of acutely disturbed patients kindly refer to The Maudsley Prescribing Guidelines in Psychiatry 13th Edition. Dose adjustment should be done for the elderly and children as suggested by Maudsley Prescribing Guidelines in Psychiatry 13th Edition



(Non-consenting patients are more likely to have poorer insight and more severe aggression. Hence it may be necessary to consider additional staff (2 security plus one nurse) for rapid tranquilization)

Conclusion

During infectious outbreaks including COVID-19, RT needs to be used as a last resort, with all recommended safety precautions for the patient and the staff.

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Electroconvulsive Therapy and Transcranial Magnetic Stimulation for Patients with Severe Mental Illness during the COVID-19 Pandemic

A. Electroconvulsive Therapy (ECT)

ECT with bag and mask ventilation and suction to clear secretion involves aerosol production. COVID-19 virus is known to be present in aerosols. The decision regarding ECT for patients should be taken based on the risk of community spread in the locality, available resources to protect patients from possible cross-contamination, protect healthcare personnel from infection with novel coronavirus and risk/benefit analysis of individual cases.

1. Screening for COVID-19:

- a. Only patients with ICMR screening score < 4 (please see annexure) should be taken up for ECT in the routine ECT suite.
 - i. This is not a foolproof method to establish the absence of COVID-19 infection. Ideally, personal protective equipment (PPE) should be worn in all cases during the period of the pandemic. However, this may lead to the utilization of precious PPEs for relatively low-risk indications. Hence, general safety precautions for COVID-19 have to be taken at all times during the administration of ECT:
 1. It has to be ensured that social distancing is practised in the waiting area as well as in the ECT administration and recovery area.
 2. Protective N95 mask, gloves and goggles should be worn by all professionals involved with the ECT procedure.
 3. Care should be taken by all professionals to avoid touching the face and mouth area at all times.

- ii. Use of ECTs should be minimized as much as possible. It may be used only as an emergency treatment when the risk of harm to self or harm to others is substantial. In addition to these, ECTs might also be indicated in case of a risk of violation of social distancing due to severe mental illness.
 - iii. It is best to avoid the use of ECT for 'elective' indications such as refractory conditions, maintenance/continuation ECT, etc. even if the score is less than 4 because a score of less than 4 does not guarantee COVID-19 negative status.
- b. If the score is 4 or more and the test results are still awaited, the ECTs must be deferred until the test results come negative. Until then, if ECT needs to be given, then the patient may be administered ECT with all standard precautions as detailed in the section on ECT in COVID-19 positive patient (below).
- 2. Administering ECT for patients with COVID-19:** ECTs should be administered in wards/operation theatres designated for COVID-19 positive patients.
- a. Patients who have significant respiratory symptoms: They might be deemed unfit for ECT by the anaesthetist.
 - b. Patients who have mild / no respiratory symptoms: In these cases, there is still a high risk of contamination. For this, the following precautions are required:
 - i. PPEs should be worn by all healthcare professionals involved in the procedure. Professionals involved in ECT administration should be kept at a bare minimum.
 - ii. Equipment used during the procedure should be handled as per the standard hospital infection control guidelines.

For example:

- Disposable equipment such as breathing circuit, reservoir bag, patient mask, gas sampling tubing should be discarded after use for each patient.
- All exposed surfaces including the railing cots should be cleaned with a detergent solution followed by a disinfectant (e.g., 1% sodium hypochlorite). After this, the surfaces should be wiped off with a wet disposable wipe since chloride solutions can damage surfaces.
- The ECT device with the electrodes can be cleaned using containing alcohol-based (e.g., 70% alcohol) solution.
- The linen used for the bed need not be cleaned separately; it can be washed in warm water and detergent along with the other laundry.

- iii. The team should foresee possible respiratory complications including tachypnea, prolonged apnea, hypoxia and desaturation, excessive secretions and be prepared to handle them. It should be remembered that any procedure which can induce coughing, such as suctioning of secretions, can potentially aerosolize the virus. Hence, proper safety measures should be ensured.

3. Changes in the ECT procedure:

- a. During the pandemic, since all ECTs are considered as 'emergency' treatments, clinicians may err on the side of efficacy at the cost of cognitive deficits.
- b. ECT with the highest likelihood of success - bilateral (bifrontal or bitemporal) ECTs with brief-pulse ECT - may be preferred to unilateral and ultra-brief-pulse ECT.
- c. To avoid the possibility of a failed seizure, particularly during the first session, ECT psychiatrists may err on the side of administering stimulus with a higher charge. E.g., 120 mC in relatively younger patients; 180 – 240 mC in those aged > 45 years. If patients are on antiepileptic medications, the charge may be adjusted keeping in mind possible higher threshold.
- d. During the pandemic, unless contraindicated, it is advisable to use anticholinergics to reduce secretion formation and aerosolization.

B. Transcranial Magnetic Stimulation (TMS)

- a. Transcranial Magnetic Stimulation (TMS) is a recommended treatment of depression with well-established safety and effectiveness profile.
- b. One clinical applicability of TMS in depression during the ongoing pandemic is when patients' general medical condition precludes the use of medications and ECT. For example, in elderly patients with recurrent medication-induced hyponatremia or severe cardiac failure, medications and ECTs may be contraindicated.
- c. In the present context, if individuals with COVID-19 infection present with severe depression and other medical comorbidities that prevent the use of antidepressant medications or ECTs, TMS may be considered as an alternative treatment option.
- d. To keep the treatment sessions short, 600 pulses (2s on; 8s off; total time 3min) of intermittent theta-burst stimulation (TBS) at 120% of resting motor threshold (RMT) delivered to the left dorsolateral prefrontal cortex, should be the first choice TMS protocol to be used.
- e. In settings where TBS is not available, low frequency (1Hz) continuous rTMS to the right dorsolateral prefrontal cortex at 120% RMT for 20-30min may be used.
- f. All necessary safety protocols (e.g., sanitization, personal protective equipment) should be used

by the health care professional before, during and after treatment delivery.

- g. Duration of treatment may be determined based on clinical judgment but ranges between 10-30 sessions. Routine screening for TMS adverse events and safety monitoring should be implemented.

Conclusion

Depending on the spread of the COVID-19 in the community, ECT may be associated with risk of infection to healthcare personnel and patients - potential of spread by asymptomatic carriers and aerosol-generating anesthetic procedure contribute to this risk. This calls for restriction of ECT for life-saving indications, judicious use of PPE & disinfection and thoughtful management of ECT staff. Further, measures should include erring towards efficacy of ECT at the cost of adverse effects, use of anticholinergics and setting different threshold for stopping ECT. TMS, with standard methods to avoid infection, may be an alternative antidepressant treatment when ECT cannot be administered

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Mental Health Rehabilitation in times of COVID-19

Introduction

Psychiatric rehabilitation is a gradual process of helping persons with psychiatric disability (PwPD) function optimally and achieve desired life goals. Rehabilitation helps PwPD in activity scheduling, gainful engagement, socialization, skills training, boost of self-confidence, symptom stabilization and achieving desired life goals. Desired life goals differ from person to person and include having friends, getting married, pursuing education or getting a job. Rehabilitation is an ongoing process which requires periodic supervision and monitoring of progress.

The ramifications of Covid19 pandemic has been felt across the world. Social distancing and lockdowns have resulted in the temporary closure of several services deemed 'non-essential'. Rehabilitation has been deemed as a non-essential service during the pandemic and many rehabilitation facilities, except residential centres, have been closed down. This section details the possible impact of closure of psychiatric rehabilitation facilities and measures to support users and their caregivers/family during the COVID-19 pandemic.

Impact of covid19 pandemic on psychiatric rehabilitation

The closure of rehabilitation facilities due to COVID-19 pandemic can have the following impacts

- Disturb the daily routines and functioning of PwPD.
- Loss of social connectedness & satisfaction - A PwPD may derive a lot of satisfaction in going to rehabilitation facility, chat with friends and work in vocational sections. Many get a sense of community at rehabilitation facility and feel that 'I am not alone'.
- Difficulties in adjusting to the disruption - boredom and frustration, worsening of psychiatric symptoms/relapse.
- Families need additional resources in caring for PwPD.

- Care-giver/family suffer increased stress (in addition to COVID-19 impact) and may suffer 'burn out'
- Increase in negative expressed emotions and domestic violence in family context
- Set-back in rehabilitation and loss of micro-gains (like PwPD getting up on time, taking up new responsibilities, contributing to family) which offers hope regarding long term prospects
- Economic impact likely to affect employment (current and prospective) options for PwPD

Role of Mental Health Professionals (MHP) and Rehabilitation Staff

- Provide accurate Information about COVID-19 and various precautions to prevent spread.
- PwPD and family need to be reassured that the rehabilitation facility will be reopened when the crisis is over and ongoing support will be provided by tele-consultations.
- Tele-consultation can be done by voice (telephone) or video calls (using popular applications like WhatsApp or Skype). It is necessary to explore as to how families are managing the crisis. Periodic tele-consultations can allay concerns, strengthen the rapport, ensure continuity of care and offer confidence to the PwPD and their families.
- Families to be encouraged to try out innovative solutions to keep clients engaged. Practical suggestions to keep the rehabilitation plan on track will be helpful.
- Medication adherence of some PwPD may have been monitored at the rehabilitation facility. In such cases, the family needs to ensure that medicines are provided on time. Dose adjustments may be required.
- Group meetings for family caregivers and PwPD using platforms like zoom can be considered. It can give a sense of community and help PwPD be in touch with their friends. Families and PwPD can share ideas to handle the situation. For some PwPD, it can also familiarize them to access technology.

Making a home based rehabilitation plan with family/PwPD

A home based rehabilitation plan should be jointly developed with PwPD, family, friends and MHPs. It may include the following :

- Ensure communication - Family members need to discuss with PwPD about his/her concern and address it.

- Provide reassurance - He/she may want reassurance that things will be better or need help to speak to employer or want some specific information about COVID-19 or just speak to the vocational instructor.
- Make PwPD feel wanted -Ensure that PwPD feels wanted at times of crisis. Simple interventions like asking for TV channel of his/her choice or cooking his/her favourite dish indicate the importance given to the PwPD.
- Help PwPD in being gainfully engaged
 - Figure out activities which may interest the PwPD - It may be leisure activities like listening to music, watching TV, reading a newspaper, playing games, drawing, painting, watering plants etc.
 - Family may involve PwPD in household work like cleaning home, fetching water, making tea etc.
 - If PwPD is not confident in handling money, families may encourage to handle money (withdraw money from ATM, pay the neighboring shopkeeper, check for change) under supervision and empower to independently carry out transactions.
 - It is possible that PwPD may not be interested in various responsibilities given. It is ok, they may be given their space. Let them pick and choose activities of their choice without constraints of time and productivity
 - **Families MUST appreciate the efforts. Families may even give an incentive or 'salary' to them.** Whatever be the contribution, the PwPD needs to be appreciated for their genuine efforts despite difficulties.
- Education - The PwPD pursuing education can use the opportunity to complete pending work and prepare for exams. A PwPD trying for employment can skill themselves with online courses.
- Employed -A PwPD who is employed may be apprehensive about salary or job. Family can help discuss with employer.
- Families to provide the PwPD a series of carefully planned steps in a supportive environment, appropriate to the stage of recovery. The family can discuss and seek support from MHPs about challenges faced.

What can families' do additionally?

- Spend quality time together and involve PwPD. This may include discussion about day to day affairs, about TV serials being telecast and making lists of groceries to be purchased.

- Normalise family routines as much as possible with family rituals like prayers, food together etc.
- Relive old memories –eg; take out an old photo album and rekindle memories.
- Encourage to get in touch with old friends and speak to them over voice or video calls. These activities will keep up enthusiasm of family and also improve social skills of PwPD.
- Make plans and provide hope – The family may want to plan a trip or visit to a religious place when lockdown is lifted, this will provide PwPD hope that things will 'normalize' in the near future.

Conclusion

These are uncertain times for everyone. It is time for us to be resourceful and ensure the rehabilitation process is on the track. We need to wait and watch as to when rehabilitation services can be restarted. It is darkest before dawn and better days await us.

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Psychiatry Research & COVID-19 Pandemic

“ In the midst of every crisis, lies great opportunity “

- Albert Einstein

The COVID-19 global pandemic which poses one of the greatest challenges faced by humankind in the modern era offers great opportunities as well, for professionals in various fields of science to understand the effects of such a global crisis on the respective fields and improve preparedness for future exigencies.

COVID-19 & Psychiatric Disorders

Viral infections have been associated with increased risk for certain psychiatric disorders like schizophrenia, depression, autism and several others. Coronaviruses (including COVID-19), especially due to their neuro-invasiveness as well as the potential for feto-maternal transmission, have the potential to enhance the risk for psychiatric disorders. Contextually, it is noteworthy that sudden acute respiratory syndrome (SARS) due to the earlier coronavirus was associated with acute psychosis. Besides, the psychosocial stressors associated with the pandemic of COVID-19 have the propensity to precipitate new-onset psychiatric disorders as well as exacerbate existing ones; moreover, the emphasis on prevention measures (for example, hand-washing, measures to avoid droplet mediated infection) might have a specific impact on certain psychiatric disorders like obsessive-compulsive disorder. The mental health professionals need to ensure optimal care of these patients during these challenging times; nonetheless, pandemic situations like COVID-19 are rare and hence they provide unique opportunities to learn.

Relevance of Mental Health Research and Interventions Related to the COVID-19 Pandemic

The COVID-19 pandemic is unique in comparison to other SARS infections in the extent of its global affliction as well as the almost universal lockdown that is currently in place for limiting the spread of the infection. This will have far-reaching consequences on almost all spheres including health, employment, economy as well as social well-being. Therefore, this situation has the potential to result in a parallel global 'pandemic' of mental health morbidity throughout the world. An equally important issue concerns the mental health issues in health care workers including disorders of adjustment leading to absenteeism, exacerbation of preexisting conditions and new-onset conditions including acute and post-traumatic stress disorder. Mental health specialists and researchers throughout the world would

need to be prepared for this scenario and therefore should initiate research and preventive interventions to tackle this potentially grave situation. Much of these strategies need to be planned, incorporating the use of technological aids for assessment and surveillance which would enable the formulation of preventive and intervention strategies. These surveillance, preventive and intervention strategies need to be piloted as soon as possible, anticipating the global 'pandemic' of mental health morbidity alluded to earlier.

Research Studies during Pandemics: Categories

Psychiatry research studies during pandemics have the potential to provide vital information on symptom fluctuations, psychological impact, neurobiological effects, treatment challenges including pharmacological interactions and the course of disorders. Pandemic situations, like COVID-19 are also unique in identifying effective interventions; this, in turn will prepare us to proactively handle future crises. Contextually, research studies that are conducted during the pandemic can be divided into the following categories:

- Research studies on psychiatry-pandemics interactions
 - Effects of Pandemics:
 - Immediate: understanding the clinical, psychosocial, pharmacological, biological impact
 - Short-term: influence on course & outcome over the near future (months)
 - Long-term: outcome as well as distal effects like neurodevelopmental sequelae in the fetus exposed to pandemic
 - Biorepository: Research studies with a primary objective to collect data & store sample that may be used for future analyses
- Research studies independent of pandemics:

This category will comprise of all other research studies that were being conducted before the onset of a pandemic. Within this category, one set of studies might be primarily focused on the collection of cross-sectional data; such studies that focus on one-time data collection may be affected by the pandemic situation than those that are longitudinal (for example, those that examine the trajectory of symptom course & outcome with or without a component of intervention). Thus, ongoing clinical intervention research may be critically affected by pandemics such as COVID-19. Amendment of the clinical trial protocols may be necessitated depending on the nature of the ongoing intervention study. Alternatives to in-person visits such as tele-evaluation may be necessitated. If in-person visits are required, alternate safer locations other than hospitals may be considered.

Psychiatry Research in Pandemics: Challenges

Conducting research studies amidst pandemic situations like COVID-19 involves several challenges. Restriction in the movement of the population critically affects subject participation in research studies. The risk of acquiring infection especially while visiting hospitals adds further to this. Balancing the needs of the subjects (access to basic living requirements, the psychosocial impact of pandemic

situations, offering relevant clinical care) with requirements for high-quality research data collection needs careful consideration and decision-making based on the specifics of the individual context. With respect to the ongoing research studies, one needs to be mindful of the potential confounding effects of the pandemic situation; to evaluate such confounding effects, it is vital that relevant additional assessments need to be incorporated. All these have to be implemented with strict adherence to high standards of ethics.

The core principle to be kept in mind while taking decisions regarding the continuation of ongoing research should be the safety of study participants and the research personnel. Researchers have to first classify the ongoing research projects with respect to how essential it is for the study participants to be continued in the study in view of possible exacerbations of their clinical condition, if discontinued/suspended from further participation. This consideration is especially relevant for ongoing intervention studies. Other observational studies that examine the biological and psychosocial aspects of psychiatric conditions may be considered as non-essential in the present context and therefore may be suspended if the protocol involves the possible risk of exposure to study participants or research personnel. In both the above scenarios, the researchers should explore whether suitable amendments to the protocol can be made to ensure the continuation of the study using remote evaluations and interventions through teleconsultation without entailing substantial risks for the study participants. These modifications to the study protocol should be made keeping in mind the possible impact of the same on the validity of the inferences that can be made out of the results that will be generated. These changes made to the protocol along with the required changes in the informed consent process would then need to be approved by the Institutional Ethics Committee in an expedited manner followed by the re-consenting of the study participants for continuation in the project. Regular communication with the funding agency should be maintained regarding this entire process to ensure approvals for the various steps being taken.

Following the relaxation of the general lockdown, further long-term amendments to the protocol may be warranted incorporating gadgets such as sensors and other devices that permit remote monitoring at homes without affecting the validity of the results as mentioned above. These again need to be approved by the Institutional Ethics and other regulatory committees as applicable as well as the funding agencies.

Psychiatry Research in Pandemics: Tapping the Potential of Technology

COVID-19 pandemic is unique in comparison to several others that have occurred in history in many aspects; one noteworthy factor is the availability of technology that has the potential to handle several challenges including the ones related to conducting research studies. Technological advances in telepsychiatry platform empower researchers to carry out certain psychiatric evaluations remotely without the patient having to visit the hospital; combining such assessments with the collection of relevant bio-parameters through wearable devices or mobile-apps may partially compensate for physical examination of patients.

Psychiatry Research in Pandemics: Ethics

From ethical perspectives, it is imperative to actively consider conducting research studies that can potentially improve interventions to the current pandemic as well as learn ways to prevent or formulate optimized approaches in the event of future pandemics. Nonetheless, it is mandatory to ensure that the quest for generating new information should be optimally balanced with the more pressing needs

related to immediate health interventions warranted by the pandemic. Initiative to conduct research must neither interfere with the delivery of public health measures nor inadvertently result in a diversion of essential resources. The ethical standards that are followed during the non-pandemic conditions (in terms of ensuring the protection of human participants, absolute adherence to professional conduct, formulating research questions that are scientifically valid with careful consideration of risk-benefit) should be strictly followed. On the other hand, there are likely to be certain research scenarios that might require an expedited review of project proposals so the studies are effectively implemented within the critical time window; the ethics review boards may have to adapt their standard procedures to accommodate such request for fast-track reviews.

Protection of Vulnerable Population Participating in Research

It is now well-established that those who are at the highest risk of severe morbidity and fatalities due to COVID-19 are the elderly, those with comorbid medical conditions as well as those exhibiting a dysregulated immune response to the virus. The elderly research participants, especially those with Alzheimer's disease and other neurodegenerative disorders are therefore highly vulnerable not only to the effects of COVID-19 infection but also to the medical and psychosocial complications of suspension of ongoing interventions as well as of social isolation. It is therefore important to remain in touch with the study participants regularly through tele-follow-up calls and to ensure that they are coping well with the situation as well as to assess their physical (including treatment side effects), psychological and social well-being and to suggest interventions as indicated. Such interventions, whenever required should preferably be administered at home through involving community-level health workers using adequate PPEs.

Patients with other psychiatric disorders and substance use disorders have higher medical comorbidities apart from having a possibly dysregulated immune apparatus; thus, they may also be vulnerable to develop more complications if exposed to COVID-19 infection. Therefore, the above steps are recommended for these patients as well who are participants of ongoing research.

While it is important to safeguard our vulnerable population from exposure to the pandemic, the same population is at higher risk for greater physical, psychological and social risks of the infection and the psychosocial effects of the global lockdown and social distancing. It is therefore of paramount importance that this section of the population should not be excluded from research studies examining the effect of the pandemic on their physical and psychosocial well-being as well as the benefit of possible intervention strategies. What is recommended is due diligence to protect them from being exposed to risk on account of their participation in research and not exclusion from all future research.

Recommendations for Specific Research Settings

A significant majority of modern-day research in neuropsychiatric disorders involves brain imaging (Magnetic Resonance Imaging, Magnetoencephalography), electrophysiology (electroencephalogram, event-related potentials), psychophysics (eye-tracking, functional near-infrared spectroscopy, heart-rate variability), neuromodulation techniques (transcranial magnetic stimulation, transcranial direct current stimulation) and similar others. At present, all observational studies involving the above experimental studies are suspended to eliminate risk to participants. However, following the global lockdown period, in due course, there would come a time when these observational studies will be slowly resumed, following stringent measures to eliminate/minimize risk

to participants. Therefore, researchers in such settings should formulate standard operating procedures for how such experimental methods are to be implemented in the above settings henceforth. These could involve an initial step of tele-screening of participants (COVID; other medical conditions; suitability for the experimental method etc.); testing (RT-PCR/antibody) for COVID-19 and other SARS infections at the local health center (when testing becomes more universal and readily available); regular testing of personnel involved in the day-to-day running of the above research settings; use of PPEs and other universal infection control protocols that are already in place including disinfection of the facility after each recording etc.

It is imperative that researchers and policy-makers initiate urgent measures towards constituting large-scale harmonized networks to facilitate conducting research studies in psychiatry amidst a pandemic situation like COVID-19 (for example, Platform foR European Preparedness Against (Re-) emerging Epidemics (PREPARE) [<https://www.prepare-europe.eu>]; PREPARE is a European Union-funded network for harmonized large-scale clinical research studies on infectious diseases, prepared to rapidly respond to any severe infectious disease outbreak, providing real-time evidence for clinical management of patients and for informing public health responses). In due course, such networks should also focus on expanding their mandate to address needs such as conducting research studies in other disasters like earthquakes, tsunami etc.

Research in Pandemics: Data Sharing & Dissemination of Findings

Another vital component of research ethics during emergencies like pandemic is making the data findings available at the earliest so that the societal benefits are maximized. For instance, preliminary data that might aid predicting patients that have high-risk to worsen or socio-demographic variables that may be associated with new-onset depression or suicidal risk in the context of a pandemic will be of immense value. Nonetheless, it is critical that communication of research findings should be constructive and adequate measures should be ensured to avoid creating panic among the masses. Sharing of data will facilitate generating additional insights through newer analyses; pooling data from multiple centers will pave the way for big data studies that may result in inferences with a wider scope of generalizability. Ethics review bodies, as well as research data regulators, should ensure evolving required standard operating procedures towards a) ensuring the validity of findings (especially the 'sensitive' observations) before they are communicated and b) seamless mechanisms to facilitate data sharing with adequate measures to protect the data privacy and rights of the study participants as well as the interests of the collaborating researchers.

Addressing the Health and Well-being of Research Personnel and Investigators

Last, but not the least, researchers should be cognizant of the need to ensure their own health and well-being during this stressful and uncertain phase for the scientific community. Principal Investigators of research projects have the responsibility to ensure that regular communications are continued through online conferencing channels during the lockdown phase and through the phase of gradual resumption of previous patterns of functioning. Such regular communication between members of the research team would provide an opportunity for the research staff to voice their concerns and to feel adequately supported. Most international funding agencies have already put out advisories for Investigators conveying a compassionate understanding of their limitations during this crisis and relaxing deadlines for grant submission as well as submission of reports.

Conclusion

Psychiatric research studies during pandemics like COVID-19 may involve examination of psychiatry-pandemic interactions as well as studies that are independent of pandemics. Conducting such studies involve handling challenges due to pandemic related restrictions as well as risk for infections. Recent advances in technology offer novel avenues to effectively handle some of these challenges. Expectedly, the implementation of such research studies has to efficiently address several facets of ethical requirements. There is an urgent need for formulating international guidelines as well as constituting large-scale harmonized networks to facilitate conducting research studies in psychiatry amidst a pandemic situation like COVID-19.

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Recommended Sanitation Measures for COVID-19

Vigilance in hand hygiene practices, wearing of surgical masks in the hospital, appropriate use of PPE in patient care, and regular cleaning and disinfection practices are key infection control measures to prevent nosocomial transmission of COVID-19. **This chapter is a compilation of sanitation measures recommended for COVID-19 by the World Health Organization (WHO), Centre for Disease Control and Prevention (CDC)-USA and Ministry of Health & Family Affairs, Government of India. The images used in this chapter are free to download for non-commercial use from the above websites and have been appropriately cited.**

Transmission:

There are two main routes of transmission of COVID-19: respiratory and contact. Respiratory droplets are generated when an infected person coughs or sneezes. Infective droplets may also remain on environmental surfaces; thus, the immediate environment of an infected individual can serve as a source of transmission (known as contact transmission).

This summary includes information on hand hygiene, personal protective equipment, and cleaning and disinfection practices.

Hand Hygiene

It is one of the important practices to reduce the transmission of COVID-19. It includes hand washing with soap and water, and use of alcohol-based products.

- 1) **Hand Washing (takes about 40-60 seconds)** with soap and water.

The figure 1 below shows the steps involved in hand washing as advised by the World Health Organization.



[Source: WHO Guidelines on Hand Hygiene in Health Care. Page 155]

2) Cleaning hands with alcohol-based products that do not require water. (takes about 20 seconds)

Use alcohol-based sanitiser/rub with 60% alcohol content.

The figure 2 shows the steps involved in cleaning hands with alcohol rub as advised by the World Health Organization.

Hand Hygiene Technique with Alcohol-Based Formulation

Duration of the entire procedure: 20-30 seconds

1a  **1b**  **2** 

Apply a palmful of the product in a cupped hand, covering all surfaces;

Rub hands palm to palm;

3  **4**  **5** 

Right palm over left dorsum with interlaced fingers and vice versa;

Palm to palm with fingers interlaced;

Backs of fingers to opposing palms with fingers interlocked;

6  **7**  **8** 

Rotational rubbing of left thumb clasped in right palm and vice versa;

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

Once dry, your hands are safe.

[Source: WHO Guidelines on Hand Hygiene in Health Care. Page 154]

Personal Protective Equipment (PPE)

Personal Protective Equipments (PPEs) are protective gear to safeguard the health workers by minimizing exposure.

Components of PPE

i) Face Shield and Goggles

Mucous membranes of eyes, nose and mouth can be contaminated by -

- Droplets generated by coughing or sneezing by infected person
- During aerosol generating procedures
- Inadvertently touching the eyes/nose/mouth with a contaminated hand

The flexible frame of goggles should provide good seal with the skin of the face, covering the eyes and the surrounding areas and even accommodating for prescription glasses.

ii) Masks

The type of mask to be used is related to particular risk profile of the category of personnel and his/her work. There are two types of masks which are recommended for various categories of personnel working in hospital or community settings:

- Surgical Triple layer mask: This is disposable, fluid resistant, provides protection from droplets of infectious material.
- N-95 Respirator mask: It is a respiratory protective device with high filtration efficiency to airborne particles. It provides an air seal to the wearer due to close facial fit design. These masks have high fluid resistance, good breathability and a cup-shaped design that does not collapse against the mouth. If correctly worn, the filtration capacity of these masks exceeds those of triple layer medical masks.

iii) Gloves:

Nitrile gloves	Latex gloves
Resist chemicals including certain disinfectants such as chlorine	Can have high rate of allergies and contact dermatitis
Nitrile gloves are preferred but if not available, latex gloves can be used. Non-powdered gloves are preferred to powdered gloves.	

iv) Coveralls or Gowns:

These protect the healthcare providers working in close proximity (within 1 meter) of suspect/confirmed COVID-19 cases or their secretions. Coveralls typically provide 360-degree protection because they are designed to cover the whole body, including back and lower legs and sometimes head and feet as well. They also have an attached head cover. Medical/isolation gowns do not provide 360-degree coverage (e.g., possible openings in the back, coverage to the mid-calf only). Gowns are easier to don and doff. Head cover should be worn separately. There is a lack of comparative evidence to show which one is more effective than the other in reducing transmission to health workers.

v) **Shoe covers:** These are used over the footwear/shoes and are made of impermeable material.

vi) **Head covers:** Coveralls come with an attached head cover. Head covers should be used separately with medical gowns. Head cover is made of impermeable material and should completely fit all the hair and hair extensions.

The table below describes the MOHFW, DGHS guidelines for rational use of PPE in different settings

COVID-19: Guidelines on rational use of Personal Protective Equipment

Source - Ministry of Health and Family Welfare, Directorate General of Health Services [Emergency Medical Relief]

Patient Care Activities /Area	Risk of Exposure	Triple Layered Mask	N-95 Mask	Gloves	Gown/Coverall	Goggles	Head Cover	Shoe cover
Triage Area in OPD	Moderate risk	X	✓	✓	X	X	X	X
Help desk/ Registration counter	Moderate risk	X	✓	✓	X	X	X	X
Temperature recording station	Moderate risk	X	✓	✓	X	X	X	X
Holding area/ waiting area	Moderate risk	X	✓	✓	X	X	X	X
Doctors chamber in OPD	Moderate risk	X	✓	✓	X	X	X	X
Clinical Management in Isolation rooms	Moderate risk	X	✓	✓	X	X	X	X
ICU facility / Critical Care Ward where aerosol generating procedures are done	High Risk	X	✓	✓	✓	✓	✓	✓
SARI ward - attending to severely ill patients of SARI	High Risk	X	✓	✓	✓	✓	✓	✓
Sample Collection/Sample testing for COVID-19	High Risk	X	✓	✓	✓	✓	✓	✓
Dead Body Packing	High Risk	X	✓	✓	✓	✓	✓	✓
Dead Body Transport	Moderate Risk	X	✓	✓	X	X	X	X
Mortuary - Dead Body Handling	Moderate Risk	X	✓	✓	X	X	X	X
Mortuary- While performing autopsy	High Risk	X	✓	✓	✓	✓	✓	✓
Sanitary staff	Moderate risk	X	✓	✓	X	X	X	X
CSDD/Laundry- Handling linen of COVID-19 patients	Moderate risk	X	✓	✓	X	X	X	X
Visitors attending OPD	Low Risk	✓	X	X	X	X	X	X
Visitors accompanying Patients in IP facility	Low Risk	✓	X	X	X	X	X	X
Supportive services-Administrative Financial Engineering Security, etc	NO risk	X	X	X	X	X	X	X

[Source:Ministry of Health and FamilyWelfare, Directorate General of Health Services (Emergency Medical Relief) - Novel CoronavirusDisease 2019 (COVID-19): Guidelines on rational use of Personal Protective Equipment. Page 4 to 8]

Sequence of donning and doffing the complete PPE

Donning

1. Shoe covers
2. Gown
3. Head covers
4. Mask
5. Goggles/Face Shield
6. Gloves

Doffing

1. Gloves
2. Gown
3. Goggles/Face Shield
4. Mask
5. Head covers
6. Shoe covers

The figures below explain the process of donning and doffing the PPE as given by Centers for Disease Control (CDC), USA.

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



4. GLOVES

- Extend to cover wrist of isolation gown



USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene



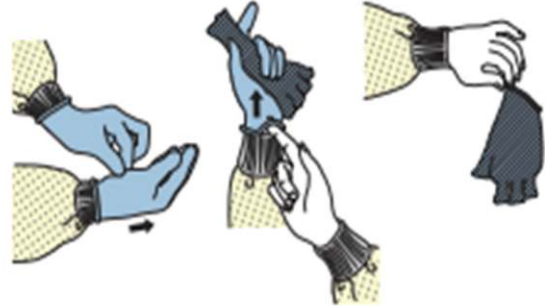
[Source: CDC - Personal Protective Equipment: Questions and Answers.
<https://www.cdc.gov/niosh/npptl/pdfs/PPE-Sequence-508.pdf>]

HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

1. GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container



2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



3. GOWN

- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container

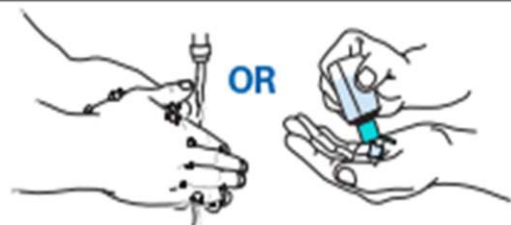


4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — **DO NOT TOUCH!**
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



**PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS
BECOME CONTAMINATED AND IMMEDIATELY AFTER
REMOVING ALL PPE**

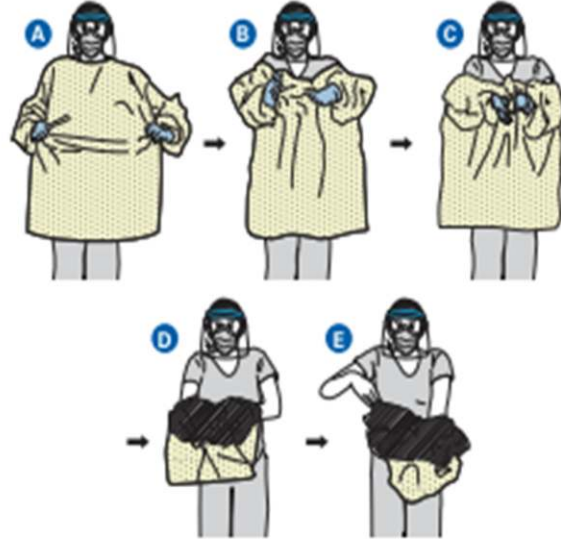


HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 2

Here is another way to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

1. GOWN AND GLOVES

- Gown front and sleeves and the outside of gloves are contaminated!
- If your hands get contaminated during gown or glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved hands
- While removing the gown, fold or roll the gown inside-out into a bundle
- As you are removing the gown, peel off your gloves at the same time, only touching the inside of the gloves and gown with your bare hands. Place the gown and gloves into a waste container



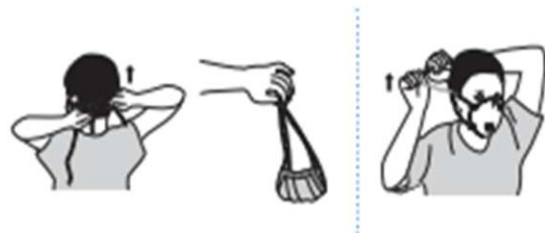
2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band and without touching the front of the goggles or face shield
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

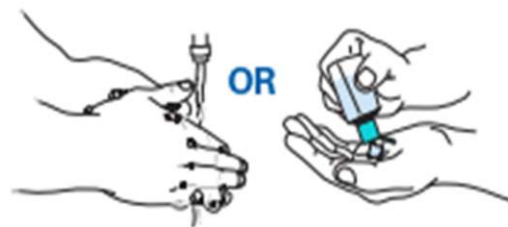


3. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



4. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE



[Source: CDC - Personal Protective Equipment: Questions and Answers. <https://www.cdc.gov/niosh/npptl/pdfs/PPE-Sequence-508.pdf>]

In addition to proper hand hygiene and rational use of personal protective equipment, it is important to ensure that all surfaces are cleaned and disinfected regularly, adequately, and safely; that a protocol for the same is established; and that infected waste is appropriately disposed of.

CLEANING AND DISINFECTION [Source: Compilation of recommendations by WHO in Water, sanitation, hygiene and waste management for the COVID-19 virus and CDC- Interim recommendations for cleaning and disinfection for households and communities]:

1) **Infected Waste:** This may include soiled linen, clothes, faecal matter, blood spills, and other contaminated human waste. The main principles include:

- Appropriate protective equipment: PPE (heavy gloves, mask, face shield, long sleeved gown/ apron, boots/ closed shoes
- Hand hygiene before and after cleaning
- Removal of organic material (e.g., blood, faeces etc.) with absorbent material prior to cleaning and disinfection

Types of infective waste
Soiled clothes or linen: Place in labelled leak proof bags/ containers → Either 1) Machine wash with detergent at 60-90 degree Celsius and dry Or 2) Soak in hot water and soap, stir with stick → Empty and soak in 0.05% chlorine for 30 min → Rinse with clean water and dry in sunlight.
Faeces / other human waste/ spilled body fluids: Clean with absorbent towels → Place waste in covered containers → Dispose in latrine (if faeces) → Disinfect the area with 0.5% free chlorine solution.

Disposal of water used to clean PPE/ infected areas:

Utility gloves and reusable plastic aprons should be cleaned with soap and water and then decontaminated them with 0.5% sodium hypochlorite solution after each use. Single-use gloves (nitrile or latex) and gowns should be discarded after each use and not reused; hand hygiene should be performed after PPE is removed. If waste water used to clean these items includes disinfectant used in prior cleaning, it does not need to be chlorinated or treated again. However, it is important that such water is disposed of in drains connected to a septic system or sewer or in a soakaway pit- which should be fenced off within the health facility grounds to prevent tampering and to avoid possible exposure in the case of overflow.

2) General Surfaces:

i) Cleaning:

Commonly touched surfaces should be frequently cleaned and wiped. Soap and water can be used for regular cleaning. Surfaces that are touched frequently include: tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, sinks, etc.

ii) Disinfection:

After cleaning with soap or cleaning solution, the surfaces should be disinfected. Most disinfecting agents require keeping the surface wet for a period of time (known as the 'contact time') to ensure effectiveness against viruses. Organic materials such as contaminated human waste can inactivate disinfectants such as bleach, so surfaces should be cleaned before being disinfected. It is important to wear gloves and ensure adequate ventilation while using disinfectants. Disinfectants should not be used past their expiration date. Disinfectants should not be mixed together.

Commonly used disinfectants include:

Disinfectant	Dilution	Contact time	Used for
Hydrogen peroxide 7%	1: 16	5 min	Disinfecting fabrics, small surfaces
Sodium hypochlorite (bleach) 5%	1:100 for general surfaces 1:50 for floors	10 min for surfaces, 30 min for immersion	Disinfecting surfaces, linen, clothing
Quaternary ammonium compounds	Preformulated; as recommended on product label	5-10min	Environmental surfaces: floor, walls, furniture
Phenolics	Preformulated; As recommended on product label	10 min	Disinfecting tables, bed rails, lab surfaces
Ethanol 70%	Preformulated	1 min	Small surfaces, equipment (stethoscopes, ventilators)
Hydrochloric acid	Preformulated	10 min	Toilet bowl cleaning

[Source: EPA List N: Disinfectants for Use Against SARS-CoV-2.

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>]

Floors are recommended to be cleaned thrice a day, and more frequently in case of contamination or spills. Three buckets- one containing plain warm water, one with detergent solution; and one bucket with hypochlorite (1:50 dilution) are used. After removing contaminated organic material (described above), the three-bucket technique is used to mop the floor, beginning with the first bucket with plain water, followed by one with the detergent solution. After each dip and use, the mop must be cleaned with water and wrung out. Once the floor is dry, the area must be mopped again using hypochlorite 1:50 dilution and allowed to dry. Water and detergent solution should be discarded and changed frequently, whenever they become dirty. While mopping, the mop should not be moved back and forth over a single area repeatedly. The movement of the mop should be unidirectional, and should progress from cleaner/less used areas to more contaminated areas. Double dipping the mop in cleaning solution should be avoided to prevent contamination. Brooms should not be used. After cleaning, the mop and buckets must be cleaned and disinfected. Personal hygiene measures including hand hygiene must be followed. While constituting disinfectant, precautions must be taken to use cold water, prevent splashes, and ensure protective garb and ventilation.

i) Soft surfaces:

For soft surfaces such as carpets, rugs, mats and curtains, observable contaminants if any should be removed. The surface may then be cleaned using soap and water or routinely used surface cleaners. If possible, soft materials should be laundered using hot water and dried. These materials can alternatively be disinfected using household disinfectants (refer table above).

ii) Laundry:

Disposable gloves must be used while handling laundry, including bedding, towels, and clothing. Laundry items should not be shaken out before washing, to prevent spread of aerosolized infective material. Items should be laundered in the warmest water setting available (if machine laundering) or in hot water stirred with a stick (avoiding spills) if manually washed. Routine detergents may be used. Laundry must be completely dried. Hampers and other items must be cleaned and disinfected after each use. For additional information regarding laundry contaminated with infective waste, refer section 1 above.

iii) Electronics:

For electronics, such as tablets, touch screens, keyboards, remote controls, and ATM keypads, a wipeable cover could be used. If manufacturer's instructions for cleaning are available, they may be followed. Else, alcohol-based wipes or sanitizer liquid/sprays containing at least 70% alcohol should be used after switching off the electronic item. The surface should be dried completely before use.

3) General Precautions

- Disposable gloves and gowns must be worn during all steps of the cleaning process. Additional personal protective equipment (PPE) might be required based on the cleaning/disinfectant products being used and if there is a risk of splash.
- Staff should be properly trained on the practices of cleaning and decontamination of hospital surfaces.
- A log of all cleaning procedures must be maintained.
- All housekeeping surfaces (floors/ table tops/ counters) should be cleaned on a regular basis, when visibly soiled and when spills occur. Either hot water or a neutral detergent may be used or a detergent/disinfectant may be used.
- Housekeeping surfaces should be cleaned with a detergent/ disinfectant solution on daily basis or more frequently in specific high-risk areas (ICUs, transplant units, isolation rooms, burns wards, OTs, emergency rooms, or when there are suspected spills of blood/ body fluids) and in areas that have patients with known transmissible infectious diseases. **High-touch surfaces must be cleaned and disinfected more frequently than minimal-touch surfaces.**
- All horizontal surfaces and all toilet areas including washbasins and commodes should be cleaned daily.
- Administrative and office areas with no patient contact require normal domestic cleaning.
- Fresh detergent/ disinfectant solutions must be prepared every day according to manufacturers' instructions. These solutions must be replaced with fresh solutions frequently.
- Diluted disinfectant solutions may become contaminated with resistant pathogens. Therefore, after the day's use, remaining solutions must be discarded and containers must be cleaned with detergent before being dried.
- The methods of cleaning floors include wet mopping, and vacuum cleaning with filters attached. Avoid dry mopping with brooms, as this generates dust aerosols.
- Horizontal surfaces must be wet dusted with a cloth moistened with a hospital disinfectant (or detergent).
- Contamination of cleaning solutions and mops must be minimized. For wet mopping, a two-bucket method should be used. When a single bucket is used, the solutions should be changed more frequently. Used cleaning solutions must be discarded in the sluice. The buckets should be cleaned with detergent and kept inverted to assist drying.

- Mop heads must be changed after cleaning spills and at the beginning of the day.
- Mop heads and cleaning cloths must be decontaminated regularly by laundering (heat disinfection) with detergent and drying at 80 degrees Celsius.
- Walls, blinds and window curtains must be cleaned when visibly soiled or contaminated.

Conclusion

COVID-19 is transmitted by droplets. In addition to social distancing, the critical element is appropriate measures of sanitation. Sanitation measures collated here are recommended by various national and international health control agencies.

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ANNEXURE

ICMR Screening for COVID-19

Date:

Name of the patient

Hospital number:

Risk for acute respiratory illness	Score		
A. Exposure Risks (in the past 14 days prior to symptom onset)	Any patient (adult or pediatric)		
1. Had a history of travel to areas with presumed ongoing community transmission of COVID-19 (China, Italy, Iran, South Korea, Japan, France, Spain, Germany, USA, Switzerland) (List will be updated every week) Or A close physical contact in the past 14 days prior to symptom onset with a confirmed case of COVID-19 OR Working in or attended a healthcare facility where patients with confirmed COVID-19 were admitted	5		
2. Exposure to a confirmed COVID-19 case in the last 2 weeks	3		
3. Exposure to suspicious patients in the last 2 weeks	2		
4. Visit to a healthcare facility that had COVID-19 case in the last 2 weeks	1		
B. Clinical signs and symptoms	Patient with Exposure Risk No. 1	Patient with or without exposure risk No. 2, 3, or 4	
		Pediatric	Adult
1. Fever	1	1	2
2. Cough (new or worsening)	1	1	2
3. Shortness of breath (new or worsening)	1	1	2
4. Sore throat and/or runny nose	1	-	1
5. Nausea, vomiting and/or diarrhea	-	-	1
6. Chronic renal failure, CAD/heart failure	-	-	1
Total score			

A score of ≥ 4 , Consider it high risk