

Research Article

## Mitigation of Mental Health Consequences during COVID-19 Pandemic in Response to Infodemic: A Global Epidemic of Misinformation

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### ABSTRACT

**Background-** The COVID-19 Pandemic, is an ongoing global pandemic of corona virus disease 2019. Corona virus is a humanitarian crisis started in Wuhan in china leading to unprecedented risk to the human race. A fear storm of misinformation multitude the pandemic and triggers stigmatization, Racism, and discrimination regarding disease. WHO is leading the effort to slow the spread of the coronavirus disease outbreak. But a global epidemic of misinformation spreading rapidly through social media platforms and other outlets poses a precarious effect on mental health of individuals. Additionally lack of preparedness plans in various countries responsible for Infodemic. The present paper states that how misinformation leads to psychological consequences highlighting the concept of behavior, attitude, and mental health in context to Infodemic, also throws light on the myths regarding COVID-19. **Objectives-** 1. To scrutinize the psychological impact of misinformation during COVID-19, 2. To explain the importance of mental health during the outbreak of a Pandemic and 3. To describe various modalities to overcome the effect of wrong information on mental- health related to COVID-19 outbreak. **Search engines-** Research work published in various journals and databases including Pub med, Google scholar and Medrxiv.org, have been searched with following key terms- Corona virus, Infodemic, Covid and misinformation, Pandemic, Psychological, Social media, Mental health, SARS-CoV-2, Telemedicine, Home confinement. Various news reports regarding psychological effects also considered and reviewed. **Results-** During the outbreak of Pandemic COVID-19, legion people have contracted the virus and plenty of them lost their lives, resulting in an incredible social and

economic shock across the world. Misinformation and myths related to COVID disease have worsen the condition and leads to panic, mental-health issues, increasing suicide rates among youngsters. Various reviewed studies reported negative effects on the behavior and attitude of individuals leading to various psychological diseases. **Conclusion-** Now a day's Infodemic related to COVID-19 become a burning issue. To combat the effect on mental health, various Interventions including Appropriate research findings. Accurate mass media models, Evidence based Telemedicine approaches. Proper counseling, Cognitive Behavior therapy, etc. are required to amid the growing burden of pandemic along with the proliferation of fake news, misleading rumors, false theories and medication misinformation in this information age and social media surrounding COVID-19.

**Keywords:** Covid-19, Infodemic, Misinformation, Social media, Telemedicine

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## INTRODUCTION

The emergence of SARS-Cov-2, antecedently provisionally named 2019 novel coronavirus or 2019-nCov Disease (COVID-19) in china at the end of 2019, caused a global health outbreak. WHO declares COVID-19 as a pandemic and sixth Public health emergency of international concern (PHEIC). International Health Regulations have a legal duty to respond promptly to a PHEIC (Kamradt-Scott, 2011). Declaration was flourished following the SARS outbreak in 2002-03 (Hoffman and Silverberg, 2018). Since 2009, there have been six PHEIC declarations (Pillinger, 2016), the 2009 H1N1 swine flu Pandemic, the 2014 polio declaration, the 2014 outbreak of Ebola in western Africa, the 2015-16 Zika virus epidemic (Hunger, n.d.), the ongoing 2018-20 Kivu Ebola epidemic (*Statement on the Meeting of the International Health Regulations (2005) Emergency Committee for Ebola Virus Disease in the Democratic Republic of the Congo on 18 October 2019*, n.d.) and the COVID-19 pandemic(*Statement on the Second Meeting of the International Health Regulations (2005) Emergency Committee Regarding the Outbreak of Novel Coronavirus (2019-NCoV)*, n.d.). A Zoonotic highly contagious corona virus has crossed species to infect the human population, was first identified in Wuhan, china especially in persons exposed to the seafood market. The virus of avian infectious bronchitis is classified as a gamma coronavirus, while most of the corona viruses that infect humans are beta coronavirus. The human coronavirus HCoV-229E described by Ameida and Tyrrell is an alpha coronavirus. The cell membrane receptor for both SARS-CoV-1 and SARS-CoV-2 is a form of Angiotensin-converting enzyme (*Coronaviruses - a General Introduction*, n.d.). The virus spread faster than its two ancestors SARS-CoV and MERS-CoV. Various evidence of human-to-human transmission of SARS-CoV has been boomed throughout a large part of the

world. Coronavirus contains emerging and reemerging pathogenic characteristics which have raised great public health concern.

COVID-19 also considered as an indicator of disparity and deficiency of social advancement. This is the most crucial global health calamity of the century and the greatest challenge that the human kind-faced. Since the beginning of COVID-9 Pandemic, misleading information has circulated worldwide, which can profoundly affect human civilization. WHO has not signaled the. potential dangers of COVID-19 but also labeled the situation as Infodemic. A Global epidemic of false news, rumors, misinformation are spreading more frequently then corona virus results in negative health conditions among the individuals. The purpose of this review was to know whether the Infodemic brings changes in the behavior, attitude and mental health. How these psychological consequences occur .What are the measures adopted to combat this misleading information.

**MATERIAL AND METHOD**

The search engine used was Pub med, Google scholar, Medline, Medrvix.org. and various web site contains the information in context to our topic. The information compiled by recent reviews including Infodemic related with COVID-19, Psychological impact on people especially on front line health workers, Negative impact of myth busters on the behavior, attitude and mental health of individuals, Role of telemedicine in dealing with psychological consequences, COVID Racism, Stigmatization and mostly focus on psychological consequences caused by Infodemic, Stress, Anxiety and Post Traumatic stress disorder.

**Mechanism Affects Human Health during COVID-19 Outbreak**

COVID-19, a Supernova in human history an expanded, all-encompassing set of events and responses to them that touches every aspect of the human condition simultaneously worsening and improving human health in myriad ways by adopting various paths. Coronavirus outbreak affects death and human health through at least four mechanism includes (“Understanding Covid-19, a ‘Supernova in Human History,” 2020) Table 1.

**Table 1: Mechanism along with effects–COVID-19**

<b>Mechanism</b>	<b>Effects</b>
SARS-CoV-2 virus	causes COVID-19.
Overwhelming health care systems spreading the disease by hindering the provision of routine care and Co-morbid cases	Increase the incidence of death rate.
24-7 Media consumption	Stress and fearful reactions.
COVID-19 affects human health is through public policy and responses.	Massive unemployment and economic disruptions will worsen wealth disparities.

Repeated media consumption related to false news, rumors, fake news around COVID-19 is one of the important factor which affects the psychological health. Anticipating a flood of COVID-19 patient's. Hospitals canceled all non- emergency surgical procedures leading to ultimate adverse health consequences. Fear and isolation also lead to increased alcohol use, suicide and domestic violence.

### **Infodemic A Global Epidemic of Misinformation**

According to Merriam Webster – “Infodemic” defined as a brew of Information and epidemic that typically refers to a rapid and far-reaching spread of both accurate and inaccurate information about something such as a disease. As facts, rumors and fears mix and disperse, it becomes difficult to learn essential information about an issue. Infodemic term was coined in 2003 by Washington Post and David Rothkopf, which has been renewed usage in the time of COVID-19. In February 2020, the term used by the WHO to refer to (Mostly false) information about the COVID-19 outbreak. An Infodemic is an overload of information, often false or unverified, about a problem, especially a major crisis. Quickly spreading in the news, online and through social media, this information fuels fear and speculation making the problem worse. Stay alert, Infodemic, Black Death, the fascinating origin of these terms occurs in the middle ages during the outbreak of Bubonic Plague in the fourteen century. The high volume of information can lead to Media Fatigue, causing the discontinuation of healthy behaviors that are essential to protect individuals.

### **Social Media Infodemic**

Social media platforms such as youtube, Twitter, Facebook provide direct access to an unprecedented amount of content and may amplify rumors and questionable information. Taking into account user's preferences, attitudes, algorithms mediate and facilitate content promotion and thus information spreading (Kulshrestha *et al.*, 2017). This paradigm shift profoundly impacts the construction of social perceptions (Schmidt *et al.*, 2017) and the farming of narratives, its influence policy making political communication as well as the evolution of public debate (Starnini *et al.*, 2016) (Schmidt *et al.*, 2018) especially when issues are controversial (Vicario *et al.*, 2016). Some studies pointed out that fake news and inaccurate information may spread faster and wider than fact based news (Vosoughi *et al.*, 2018). Whenever there is a COVID-19 outbreak false news, Hoaxes, Falsehood can spread swiftly than pandemic itself and can be dangerous.

### **Hazards Attributed due to Infodemic**

As an illustration, CNN has recently anticipated a rumor about the possible lockdown of Lombardy in northern Italy to prevent pandemic (Zarocostas, 2020b) publishing

the news hrs before the official communication from the Italian Prime Minister. As a result people overcrowded trains and airports to flee from Lombardy towards the Southern regions before the lock down were in situ ,disturbing the govt. an action aimed to contain the epidemics and potentially increase contagion (Cinelli *et al.*, 2020) .Another hazard can be drawn from Nigeria ,where the health officials found several cases of overdose of chloroquine after news on the purported effectiveness of the drug for treating COVID-19 spread through the news media(*Nigeria Records Chloroquine Poisoning after Trump Endorses It for Coronavirus Treatment - CNN*, n.d.). Rumors about national lockdown in the united states fueled panic buying of groceries and paper products which disrupted the supply chain and exacerbated demand-supply gaps and food in security among individuals with low socio-economic status and other vulnerable populations (Spencer, 2020).

### **Myth Busters COVID-19 –sorting the fact from fake news**

During the COVID-19 outbreak every one hungry for information, rumors and myths have been spreading around social media in minutes with throw away remarks and untested theories reaching all corners of the world in what seems like seconds. With the advent of civilization possibilities of fake news being circulated grew. It is very important to know the facts and don't fall prey to misinformation. In order to bust false information about the novel corona virus, the World Health Organizations and the Indian government have issued advisories for the public. Below is the list of some myths about COVID-19 Pandemic (*Mythbusters*, n.d.) Table 2.

Above myth, busters have an impact on psychological health. As an incidence occurs in Iran by the end of Mar 2020 more than 2100 Iranians were poisoned by the oral ingestion of Methanol. Due to the impact of myth they told that they could prevent being infected by COVID-19 by drinking alcohol results in killing of 296 persons due to this rumor (Soltaninejad, 2020).

### **Fact Checks of COVID-19 Initiative by BOOM**

A study has been conducted by website BOOM through data and evidence of various viral information includes trending news topics and various media through which this information was disseminated. Various topics such as bio weapon, economy, health, politics, cure, Prevention and treatment, lockdown, etc. were trending between January to April. The subject of pretend news intensely changed in March and shifted to corona virus related misinformation. This study also claimed that in this era ,as the number of cases grew, They did their number of pandemic related fact-check(*Maximum Covid-*

**Table 2: Myth Busters related to COVID-19**

S.No.	Myths	Facts
1	Hot weather will kill the virus.	Transmitted in all types of areas but in hot and humid conditions the virus has the potential to spread.
2	Disclosure to Sun will kill the virus.	It doesn't prevent the COVID-19, as several countries which are known for the hot conditions have reported positive cases.
3	Alcohol Consumption cures COVID-19 Infection.	No evidence for this, WHO states that excessive consumption increase the risk of health problems.
4	Hot Bath will cure the Infection.	Doesn't affect at what temperature you take the bath washing hands best ways to maintain personal hygiene.
5	Virus can be spread through Mosquito bites.	No evidence till date it is a respiratory virus spreads through droplet infection.
6	Antibiotics are effective against corona virus.	Effective against bacteria not viruses. However medical treatment for bacterial co-infect on may require the use of antibiotics.
7	Thermal scanners can detect the virus.	Thermal scanners effective in detecting fever not corona virus.
8	Consumption of garlic and Sesame seeds will protect against the COVID-19.	No evidence.
9	Pneumonia vaccine can protect against the virus.	No. evidence.
10	Disinfectant or Alcohol spraying can cure the infection.	Spraying not cures the infection, Alcohol –based hand rub or washing hands with soap will prevent the germs from entering your nose, eyes, mouth through infected hands.
11	Rinsing nose with saline water will prevent the infection.	No evidence, common cold can be treated by this.
12	You cannot recover from COVID-19.	Most treated persons have recovered and have eliminated COVID-19 from their bodies. Important to seek medical attention as soon as you realize COVID-19 symptoms.
13	Both winter and snow can kill the virus.	No evidence.
14	Hand dryers are effective against the new virus	This myth is not found effective but it is essential to adopt various hygienic measures.
15	Ultraviolet Disinfection lamp will kill the virus.	No evidence has been found but use of disinfectant leads to skin irritation.
16	Youngsters are not susceptible to the virus.	As per WHO'S guidelines, persons of all ages can contract the deadly novel corona virus where as co-morbid cases are more prone to this virus.
17	Holding your breath for a while will prevent you from the virus.	Myth about holding breath for more than 10 seconds not true, it is prudent to take COVID-19 test to confirm the disease.
18	Medicines are available to prevent or treat COVID-19.	No specific medicines to treat COVID-19 still working on vaccine trials.
19	Chlorine will kill the virus.	Not effective, clean the surfaces as it act as a disinfectant.
20	Consumption of Non-vegetarian food will lead to infection.	Zoonotic disease, there are no animal species to carry the virus. Ensure you consume the food with hygiene care.

*19-Related Fact Checks in April Related to Communal Rumours: BOOM Study | India News, The Indian Express, n.d.*). The fake news surrounding the origin of the virus, its subsequent spread and threats it poses have nearly engulfed every nation. For instance An influential study by the Vaccine Confidence Project (VCP) found over 240 Million digital and social media messages globally on COVID-19 by mid-march at a median of 3.08 million daily messages. An unlimited majority of these messages were found to be false or very misleading in their intent (Sahoo, n.d.).

### **Infodemia, Crowd Psychology and Panic Responses Related to COVID-19 Pandemic**

WHO's Director of Infectious Diseases, Sylvie Briand stated that "We Know that with the spread of any disease, a tsunami of information dissemination occurs and in this published information, there is always false and rumors information. The information tsunami phenomenon has existed even in the middle Ages, but the difference between the present and the past is another phenomenon known as "Social Media" has destructive effects alongside the COVID-19 outcome (Zarocostas, 2020a). False information in context with corona leads to outcomes such as being Anxious, Distressful shopping and unnecessary food storage all of which reflect the impact of new information ecosystem called "Infodemia" that is a 21<sup>st</sup> century feature of Social Media, characterized by simultaneously spreading of the virus and the relevant information. As a result of the panic the waves of false information of novel corona virus spreads rapidly (Depoux *et al.*, 2020) and amplifying perceptions of risk.

### **Crowd Psychology is Interlinked with the COVID-19**

The COVID-19 emergency has made it more important to understand the constructive and avoid destructive sides of crowds in crisis. It is therefore not surprising that amid the COVID-19 crisis, aside from infection fears, gatherings, public transport was met with concern and even alarm, crowds are associated with trouble. People have been taught to fear the masses as destructive forces. At the root of such concerns lies a belief that in the absence of clear hierarchies to guide those people are unable to think for themselves (*Fergus Neville and Stephen Reicher, Author At, n.d.*). Crowd psychology is a very important factor to deal with while studying the impact of Infodemic. All important phenomena, idea and information have some kind of viral nature first like the coronavirus. Fake news increased the uncertainty, confusion, fragility and dysfunctional behavior, disturbed attitudes along with neurological effect on our mental health.

## **Panic Reactions**

Fearful reactions to the novel coronavirus due to misinformation can make the outbreak even worse. When the person's behaviors are driven by fear, it leads to discrimination and decision making out of line with public health recommendations. According to Philip Alcabas, Professor of public health says that the major common thread connecting outbreaks from the Black death to the current novel corona virus outbreak. Fear and panic can magnify the harm done by a virus. In context to the current people can be excited and do bad things in response. In the US ,Panic over rising case counts has triggered a rush on grocery stores and pharmacies. Due to attributes it's good to arrange for disruption but there's a lot of difference between preparedness and panic buying (Wetsman, 2020). The World Health Organization says that there are worldwide shortages of masks and other protective equipment, that's put health care workers at risk and increase the disease burden .Various studies have shown that anxiety and depression rates soar during pandemic.

## **Panic Unearths Racism, Discrimination and Stigmatization**

As an average human society gripped by lack of credible information, baseless rumors, fake news, racial stereotyping, desperation, panic and fear feed discrimination and stigmatization. Infectious diseases always share a long and problematic relationship with stigma and discrimination. Hysteria, Anxiety, confusion and largely unchecked flow of fake news laced with conspiracy theories have only fueled the prejudice against Asians. The social stigma created during pandemics is known to have a cascading effect, lead to economic, emotional, physical, mental and social consequences which might take centuries to heal. Outbreak lead to the creation of fear psychosis, victimization and alienation of certain groups (Turner-Musa *et al.*, 2020). In India, Australia, Italy, UAE, Israel, Japan or even china, discriminatory behavior against those affected with novel corona virus are on the rise. The WHO in May 2015 noticed that naming diseases based on the region/country/place was creating stigma and was hurting the people of said regions. To combat this it laid down guidelines to name diseases to minimize untoward consequences. As strict lockdown measures, we are concerned that incidents of Xenophobia will further increase, exacerbated by social tensions created by economic downturn (*Combating Xenophobia Is Key to an Effective COVID-19 Recovery*, 2020). Racist and xenophobic incidents linked to the outbreak have been widespread. Including verbal and physical assaults, social exclusion, denial of access to goods, boycotting of business, discriminatory movement restriction sand quarantine policies, as well as xenophobic rhetoric from politicians and media described as a "Tsunami of hate and Xenophobia.

## **Psychological Consequences/Impact of Infodemic on Mental health**

Research studies reveal that social media or the unfold of wrong data features an important impact on spreading stress, fear and panic associated with COVID-19 with a potential negative influence on people's psychological well being. The main Psychological impact so far is elevated rates of stress and anxiety. However new measures and impacts are introduced particularly Quarantine, Home confinement, Isolation, Social deprivation, continuous exposure to media effects on several people's usual activities, routines or livelihood- level of loneliness, depression, alcohol, drug use, suicidal behavior are also expected to rise. Stress is one amongst the foremost vital factors worsen the psychological health. According to the Mental health foundation outlined stress as the degree to which u feel overwhelmed as a result of pressure that's unmanageable. Stress is not an illness however ends up in various mental health conditions. Beliefs, roles, stories, attitudes, lack of social support, lack of resources for adequate style, rumors leads to such type of stress. (*Types of Stress and Their Symptoms - Dealing with Stress and Anxiety Management/ ?EUR" Coping Mechanisms from Mental Help. Net, n.d.*)The psychological consequences occur due to Infomedia enlisted below.

### **General Effects**

1. Stress arises causes the fear and worries regarding your health and idolized ones.
2. Disturbing the financial situation or job or loss of support services.
3. Worsening of chronic health problems and mental health conditions.
4. Increase the use of Addiction substances.
5. Racing thoughts, frustration, irritability and anger.
6. Restfulness or agitation.
7. Difficult to concentrate or sleeping.
8. Apprehension about going to public space.
9. Trouble relaxing.
10. Various mental health conditions including Depression, Anxiety, Psychosis and Post Traumatic stress disorder.

### **Impact on Co-morbid Cases**

In a study patients were reported as already suffering from diabetes (10% to 20%), Hypertension (10-15%), cardio vascular disease and cerebrovascular disease (7-40%)

being most common (Huang *et al.*, 2020) and more susceptible to develop respiratory failure and death. The persons with pre-existing psychiatric illness are more prone to develop infectious diseases such as pneumonia (Seminog and Goldacre, 2013) and also lead to the hazardous effects on their physical as well as mental well being. Poor awareness level, Cognitive decline, poor awareness level, reduced concern about personal hygiene can increase the risk of infection (Yao *et al.*, 2020). Relapse and deterioration of foregoing illness develop in Psychiatric patients. As an Example Individuals suffering from Obsessive Compulsive disorders may practice repeated self monitoring of body temperature and make several attempts to swallow saliva to check for throat pain as a symptom of Corona virus, compulsive Hand-washing or hand sanitizing also adds further to the gloom of a known OCD washers. Nationwide strict regulations regarding transport, quarantine can abruptly discontinue the therapeutic counseling schedules and impose utmost difficulties upon access of prescribed psychiatric medications (Xiao, 2020) Individuals with Generalized anxiety disorder are likely to misinterpret benign muscle pain or coughing as a telltale sign of getting infected with COVID-19.

### **Impact on Front Line Health Care Workers**

Instant messaging and Social Media provided an abundant and powerful sources of information during COVID-19 pandemic has disturbed the key tasks of front line health care workers (Tham *et al.*, 2020). Fear of unknown, worthlessness, over whelming work pressure, uncertainty, depression, anxiety are the risk factors for causing trauma among HCW, still recall the emotional stress owing to the fear of an unknown disease, public stigmas and the realities of mortality (Khee, 2004). Li *et al.* in their nationwide study among HCPs working in fever clinics or treating COVID patients showed that half the responders identified with a minimum depression and one third reported insomnia where as 14% of physicians and nearly 16% of nurses described moderate or severe depressive symptom. The researchers found out that being female and working in the frontline were more vulnerable for developing abnormal stress symptoms (Lai *et al.*, 2020). A study showed that caring for fellow ill colleagues during the pandemic may increase the anxiety of hospital staff regarding their competence and skills, making them more weak mentally (Maunder *et al.*, 2003).

### **Interventions to Address Misinformation**

Addressing the Munich Security Conference on Feb 15, 2020, WHO DG Dr. Tedros Adhanom Ghebreyesus said, “We’re not just fighting an epidemic, we’re fighting an Infodemic”. The ease through which in accuracies and conspiracies can be repeated and perpetuated via Social Media and conventional outlets put public health at a constant

disadvantage. United nations chief Antonio Guterres too said last month that an Infodemic of misinformation was also an enemy that we all need to fight while battling COVID-19. To overcome the corona virus we need to urgently promote facts, science, hope and solidarity over despair and division,” he said. A team of World Health Organization are working with media companies like Facebook, Google, Tencent, Twitter, Youtube, and other to counter the spread of these informations. Following interventions are adopted to mitigate the psychological consequence occurs as a result of Infodemic-

- By countering Misinformation about COVID-19 they can help policy makers avoid introducing harmful policies, improve public understanding of the pandemic and most importantly save lives.
- All hoaxes and rumors should be removed from all online platforms.
- Scientifically sound information should be allowed to increase awareness among people.
- Fake news can be stopped by considering the source, check the Author, Date and Biases.
- Headlines can be outrageous to get the clicks.
- To know the whole story along with supporting shreds of evidence.
- Always consult fact-checking sites to overcome the misinformation.
- The online portal and personnel involved in the proffering and diffusion of misinformation should be brought to justice (Tasnim *et al.*, 2020).
- WHO’s risk communication team launched a new platform called WHO Information Network for Epidemics (EPI-WIN) intending to share tailored information with specific target groups (Zarocostas, 2020a).
- Local and national regulatory authorities and law enforcement agencies should be aware of these challenges to address these contexts comprehensively (Tasnim *et al.*, 2020).
- Social Media network platforms should adopt such measures to identify and eliminate the misinformation. (Tasnim *et al.*, 2020).
- Advanced technologies like data mining approaches and natural language processing should be adopted to identify and delete the misinformation without evidence-based.
- Practices should be controlled with regulatory and law enforcement measures.
- Approachable evidence-based Telemedicine services should be adopted.

- Make sure that accurate information should be made available to people with limited access.
- WHO has joined the forces with the govt of the united kingdom to run an awareness campaign about the risks of Infodemic regarding COVID-19 Pandemic.
- Global Campaign is “Stop the Spread” which aims to raise awareness about the risk of misinformation around COVID-19.

Media networking platforms such as Twitter has advertising policies that sideline science organizations and science publishers treating peer-reviewed science as inappropriate content and to develop a strong methodological framework to detect fake news. Four pillars of Infodemic Management described as under Table 3 (Eysenbach, 2020).

**Table 3: Infodemic Management Pillars**

S.No.	Pillars for Infodemic Management
1	Infoveillance
2	Electronic Health literacy & Science literacy capacity.
3	Fact-checking and peer review.
4	Minimizing political or commercial influences.

### **Interventions to Address Psychological Consequences**

Mental health is not just the absence of mental disorder perhaps defined as a state of well-being in which every individual realizes own potential and deals with the stress of life, work productively and fruitfully. Misinformation around the Outbreak of COVID-19 threaten the mental health of the individuals results in various psychological disorder. Initiative should be taken to combat the psychological consequences. Following interventions are discussed in details:

- Mental health programs should be organized at the level of Social media network platforms.
- Avoid repeated consumption of mass media associated with the COVID-19 that causes you to feel anxious and depressed.
- Watch information updates of COVID-19 pandemic at a specific time during the day, once or twice.
- Always get the fact full news not the misleading information. Gather information at regular intervals from the WHO website and local health authority platform.
- Avoid racism, stigmatization and discrimination associated with the outbreak of COVID-19 Pandemic.

- Special care should be given to patients with pre-existing psychiatric illness.
- Psychiatric consultation includes telemedicine basically in the rural areas, an elderly population (Tasnim *et al.*, 2020).
- On line consultation through video conferencing decrease the chances of nasocominal infections.
- Telemedicine also reduces the utilization of ventilators, personal protective equipment for doctors (Tasnim *et al.*, 2020).
- Be empathetic to all who are affected, have not done anything wrong, deserve out support, compassion and kindness.
- Psychotherapy by stress adaptation model (Maunder *et al.*, 2003).
- Discussion with families regarding treatment plans of the patients through telephone, video-calls, whatsapp, e-mail etc. (Xiang *et al.*, 2020).
- Working together as one community can help to create solidarity in addressing COVID-19.
- Adopting interventions with a multidisciplinary and multilevel approach.
- Adopting a healthy life style including Eat Healthy nutritious food, Maintenance of proper sleep cycle, Regular exercise.
- Ayurveda and yoga play a very important role in the Protection, Maintenance and promotion of mental health during the pandemic crisis.
- By adopting the principles of mental health treatment such as knowledge, analytical thinking, courage, memory and concentration mentioned in Ayurveda (Ramu and Venkataram, 1985).
- By adopting various principles explained in the doctrine of Ayurveda including Daily regimens, Seasonal regimens, Food and herbs increasing the immunity and mental health, avoid scatheful act, follow good code of conduct, not avoiding the natural urges.
- Adopting the principles of Yoga including Breathing practices (Pranayam), Meditation and the daily practice of yoga asanas.

### **Addressing Psychological Issues and Infodemic among Front line Health Care Workers (FHCW's)**

Following measures are adopted to deal with psychological issues in front line health workers-

1. Adoption of a psychological preparedness toolkit incorporates mental health organizational theories, health professional, educational principles to combat stress and anxiety (Lim *et al.*, 2020).
2. FHCW's should be equipped with the most recent findings and accurate information which can be use in direct care giving and communicated with the patient or population at risk.
3. Information and Illustrations e.g. commonly encountered discomfort of PPE and HCWs learning to reduce mask abrasion with emollients (Lim *et al.*, 2020).
4. Regular online video conferencing with the higher authorities.
5. Time to time proper guidance should be given regarding the precautionary measures.
6. Psychological insurance to the infected HCW's.
7. Regular updates of evidence based news related to novel coronavirus.
8. Sustained connection with family and friends through smart phones.
9. Shorter working duration, regular rest period and rotating shifts (Ho *et al.*, 2020).

## **RESULT AND DISCUSSION**

The Mental health crisis is looming at large during the outbreak of COVID-19 Pandemic. Now a day's Infodemic and COVID-19 become a burning issue to dealt. Misinformation related with novel corona virus has fuelled the COVID-19 Pandemic. Research studies show that people living in Quarantine, isolation or at risk of infectious disease are likely to experience psychological, psychosocial and psycho spiritual stress along with negative health impacts which provoke their keen interest in learning about the disease. They are not able to differentiate between accurate and in accurate news. Inaccurate or non scientific information ignite the mental health problems also triggers the Stigmatization, discrimination and Racism. On the one hand we are facing catastrophe of COVID-19 that requires multidisciplinary efforts at multi level on the other hand dealing with perils of Indodemic where falsehood requires a tremendous effects to clear the official communication. Sylvie Briand Director of Infectious Hazards Management at WHO's health emergencies program and architect of WHO's strategy to count Infodemic risk, said it is not only information making sure to not only inform but inform people with accurate information. From the above literature we found that misinformation effects general public, FLHCW and social dynamics.

## CONCLUSION AND FUTURE DIRECTIONS

There may be no way to prevent COVID-19 Pandemic in the globalized time, but verified information is the most effective prevention against the disease of Panic (Zarocostas, 2020b). The psychological preparedness tool kit comprised of expected emotional response, support measures, changes in a work environment along with the anticipated effect on mental health has a crucial role in combating the psychological consequences that occur during the Infodemic of COVID-19. WHO has important role to combat inaccurate and unnecessary information worldwide and also developed guidelines on mental health and psychosocial considerations during COVID-19. Tele medicine is one of the important tool to manage psychological consequences during SARS- CoV-2 outbreak has been prepared by MoHFW with NITI Aayog. Despite adopting various interventions rumors are still rampant on all the social media platforms a problem that necessitates several integrative strategies to address. New initiatives should be taken to provide correct information through cross-section collaborations. Various models should be introduced to tackle the limitations of Telemedicine. Setting up of mental health organizations for future pandemic including home to home psychotherapy services. Enhance the awareness regarding the mental health through various NGO's. Training enhancement quality improvement programs should be organized to train the FLHCW's to overcome the load of COVID-19. Perhaps the holistic and multi dimensional approach of Ayurveda and yoga, should be taken into consideration While constructing frame work for various models to deal with psychological consequences during the pandemic of COVID-19.

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