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Mini Review

Impact of Covid on Mental Status of Health Care Workers and in General Population

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Abstract

Coronaviruses consist of enveloped viruses. The easily transmittable (COVID-19) is a viral infection originating from Wuhan, China. The unmatched general epidemic of (COVID-19) has continued to have a remarkable force on nations. Government controls and restrictions were put in place along with social isolation and distancing thus slowing down the spread of the virus.

Keywords: Coronavirus; Mental Status; Health Care Workers

Introduction

Coronaviruses (CoV) belong to the genus Coronaviridae. They are being pleomorphic in nature. Peplomers basically consist of 80-160 nM in size and 27-32 kb with positive polarity contained by RNA viruses shaped in crown fashion. Coronaviruses are zoonotic pathogens. Mutation rates are very high that exist in humans and animals causing infections related to respiration, hepatics, neurology and the gastrointestinal system [1].

In the province of Guangdong China in 2002 and 2003 for the first time a highly pathogenic virus called SARS was found in humans which mainly affected the populations with weaker immunity. It has spread as CoV OC43 and CoV229E. On December 12, 2019, the first unknown case of pneumonia was detected which soon after known as novel (COVID-19) [1]. It was observed previously and research carried on infectious diseases which includes Severe Acute Respiratory Syndrome (SARS), the Middle East respiratory syndrome (MERS) and the Ebola virus disease and time and again revealed that many healthcare professionals (HPs) disclosed symptoms of depression and anxiety causing a stern force on their coping abilities.

Above and beyond, Great Recession (2008) was followed by economic cuts which was due to reduced material and human resources was faced by public healthcare systems. The circumstances deteriorated additionally during the COVID-19 epidemic [2].

Pathophysiology

SARS-CoV-2 is the third coronavirus which is so severe in nature that it spread internationally in the precedent 2 decades. The first coronavirus is (SARS) in year 2002-2003, that derive in Foshan, China. The second was the coronavirus (MERS), that commenced from the Arabian peninsula in2012. SARS-CoV-2 have distinctive spikes, which ranged from 9 nm to 12 nm and a diameter of 60 nm to 140 nm and distinctive spikes, displaying the virions the resembling the solar corona. Humans became infected with SARSCoV-2 via host pangolin although bat is being a natural reservoir [3].

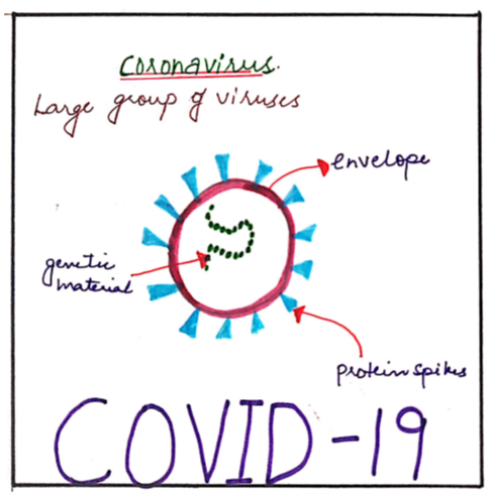

Figure 1

Clinical Presentation

Incubation period for COVID-19 is something like 5 (2 - 7) days. Out which 97.5% symptoms within 11.5 days of infection. Fourty seven to seventy three years are being hospitalized, with mostly males. Symptoms are fever in 90% cases, cough in 60% - 86% cases and shortness of breath in 53%-80% cases. Patients can also be in attendance with non conventional symptoms, such as Olfactory, gastrointestinal and loss of gustatory function have been depicted in 64%to 80% of patients.

Impact of COVID 19 on children and teens at risk [4,5]

Children when absent from school they may have many questions about the outbreak and they expect the answer from parents. Although many parents are not able to deal with stress. Kids and teens experience social distancing, anxiety and abusive environment.

Crying and annoying behavior, sadness and depression. Hence difficulties in concentrating and paying attention. Changes in appetite unexpected headaches and pain. Parents should be calm and handle wisely the situation. Parents should set your mind at rest and they are safe at home. Parents should assure their children about safety and should feel negative energy. It has been found that although children are not affected by COVID 19 infection but psychological impacts have been seen [4].

Impact of COVID 19 on patients [5]

For the period of the precedent few weeks we have accomplished a noteworthy raise in phone contacts and visits from patients or near ones expressing misery and fright. Patients who have mental health conditions and medical comorbidities, such as CVS disease, coupled with deterioration of symptoms, in case of angina.

Impact of COVID 19 on elders and people and disabilities [4]

Elderly people have more chances of COVID-19 pandemic due to weaker immune system and are being separated from their families and acquaintances due to their hectic schedules. So people with age above 60 are more prone to COVID 19 and due to separation can have sweeping negative effects on the mental health of disabled and the elderly population. Isolation at home can cause distress, anxiety and stimulate a shocking situation for them. However just a telephonic call can help to cheer up elderly people.

Physician trainee burnouts A short online survey conducted [6]

COVID-19 pandemic has put huge twist on frontline healthcare workers. It was found physician trainees were experiencing significant challenges during the pandemic. A total number of 1375 physician trainees at an academic medical center were called up to play a part in an online survey. And it was found that only 393 trainees completed the survey. On winding up concluding it was found that the exposed group had a higher prevalence of stress and burnout. While female trainees and unmarried were more likely

to be depressed. So wellness programme should be conducted to develop mental health.

Impact on health care workers

Health-care workers have sustained to offer concern for patients in spite of overtiredness and personal risk of infection. Sadly, health-care workers have come across with also faced many sources of stress, anxiety and long shifts. Hospital-based health professionals are working in bulky and tight personal protective equipment (PPE). Health-care workers had to show concern for colleagues, console dying patients. Health-care workers are identified to be at risk for depression, anxiety, insomnia, moral distress, burnout, and post-traumatic stress disorder [7]. A detailed psychological crisis intervention plan should be developed to deal with the secondary mental health problems involved in the COVID-19 pandemic, urgent psychological crisis intervention model (PCIM) should be developed and implemented. This PCIM integrate teams of psychiatrists, mental health practitioners, physicians, psychologists and social workers to deliver early psychological intervention to patients, medical staff and families [8].

Mitigating psychological effects of COVID 19 on health care workers [9]

Greatest risk of psychologic distress is seen among care providers who treat patients with COVID 19. A survey is being carried in among 1257 nurses and physicians who were concerned with patients in China found that these care providers had significantly more depression, insomnia, distress and anxiety than providers who have no direct contact with patients. Another observational study was carried out among 180 health care workers contributing direct care for patients with COVID-19 found ample levels of anxiety and stress that adversely influenced sleep quality and self-efficacy of the individuals. But a strong social support network provides less stress.

Physiological first aid [10]

Psychological first aid (PFA) is defined as a 'humane, supportive response to a fellow human being who is suffering and who may need support' (World Health Organization, War Trauma Foundation and World Vision International, 2011). The PFA model provides immediate help and support to individuals during crisis. Fox., *et al*. in 2012 narrated that despite the limitations, key outcomes of PFA are safety feeling calmness and hopeful, thus effective in helping long-term recovery as compared to folks lacking professional mental health training. PFA is simple and straightforward and hence privacy should be maintained open if the person wishes.

Studies proving COVID 19 and mental stress

Selvaraj P., *et al*. in 2020 [11] conducted a study in which they assessed the occurrence of depression, psychological distress, stress, insomnia and anxiety practiced by the Indian healthcare workers**.** A cross-sectional study was carried on among 777 doctors from corona wards from and questionnaire was offered. Hence it was found that early screening which targets the medical work force and the implementation of psychological interventions is crucial for health-care system.

Benjamin Y.Q. Tan., *et al*. in 2020 [12] examined the psychological distress, anxiety and depression experienced by health care workers in Singapore and further compared between medically and non–medically trained hospital personnel. A self administered questionnaire was prepared and health care workers from 2 major tertiary institutions in Singapore caring for corona patients were invited to participate. Thus, winding up it was found that nonmedical health care personnel are more at risk for psychological distress So early psychological interventions are must.

Shaukat N., *et al*. in 2020 [13] reviewed and summarized the impacts of COVID-19 pandemic on health-care workers (HCWs). Arksey O'Malley framework was used to conduct a scoping review. A systematic literature search was done and two data base were used i.e. Google Scholar and Pubmed. We found 154 articles. And on conclusion it was found that the frontline healthcare workers are at risk of physical and mental consequences.

Sritharan J., *et al*. in 2020 [14] reviewed existing literature and assessed hence understanding the mental health issues that come out during a pandemics. Of the 203 unique articles reviewed, 16 articles were included in this study. On concluding it was found that the impact on frontline workers and those distress from mental health should be prioritized during this pandemic.

Kaur A., *et al*. in 2021 [15] conducted a meta-analysis and systematic review to a highpoint with current literature and established a data relating the mortality of (COVID-19) in patients with asthma and those deviod of asthma. The databases were explored for studies associating the clinical results with and without asth-

matic patients diagnosed with COVID-19. Hence it is concluded that asthma may not upsurge the mortality of COVID-19.

Conclusion

This review provides a brief description of the current COVID-19 situation and illustrates the mental impact on public and healthcare professionals and its Safety measures such as prevention, precautions and vaccination are some of the methods to be taken care of along with special emphasis should be given on Psychological first aid (PFA) and psychological counseling.

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