

Impact of COVID-19 pandemic on the mental health of front line healthcare workers

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INTRODUCTION

Human survival is constantly being threatened by war, hunger, natural disaster and disease. History is marked with the epidemic of various diseases (plague, cholera, leprosy, flu) and in the modern times by Severe Acute Respiratory Syndrome (SARS), swine flu, and Middle East Respiratory Syndrome (MERS) outbreaks. In the past infectious disease outbreaks were geographically localised with a limited transmissibility, but in the present time the whole spectrum has changed. Currently the outbreak of an infectious disease in any part of the world has the potential to become a pandemic within in a short period of time because of the globalisation of human society and wide spread human interactions.

COVID-19 is the name given by WHO (World Health Organisation) to a highly infectious disease caused by SARS -CoV 2 (Severe Acute Respiratory Syndrome Coronavirus-2). The outbreak was first identified in Wuhan, China in December 2019. WHO declared this as a public health emergency of international concern in January 2020 and later recognised this as a pandemic in March 2020.¹ The recent corona pandemic (COVID-19) is associated with a number of uncertainties regarding its pathophysiology, transmission and future. Certain situations in this regard are quite new for everybody involved e.g. personal protection, change of work pattern, fear of disease contraction and possible transmission to close family members. Also if you are infected with the disease you may face another set of challenging situations which include self-quarantine followed by a long convalescence period.

COVID-19 patients present with signs and symptoms of upper respiratory tract infection which rapidly turn to severe pneumonia and Acute Respiratory Distress Syndrome (ARDS). Patients who develop acute respiratory failure need admission into the intensive care unit (ICU) and ventilator support. Some of them may develop multi-organ failure. Intensivists, anaesthetists, respiratory physicians, intensive care nurses, physiotherapists, pharmacists, nutritionists, radiographers and other supporting staff constitute the frontline healthcare force fighting the disease. They are under tremendous mental pressure because of the fear, anxiety and stigma associated with the care of these patients.

On all the academic and administrative forums there is lot of discussion and sharing of views regarding the preventive and management aspects of the disease. How this stressful situation is affecting the mental health of front line health care workers is a neglected and least discussed subject.

DISCUSSION/REVIEW OF LITERATURE

Frontline healthcare workers who are involved in the care of any infectious disease outbreak are always at risk of contracting the disease; moreover the workload and uncertainty of the situation also affects their physical and mental wellbeing. Physical tiredness and burnout can be overcome with sharing the work load, rest, and also taking

time off work when the situation is under control. The psychological or mental health implications for the front line healthcare workers involved in any pandemic, epidemic or healthcare emergency are very difficult to assess. This is an emerging subject for discussion and research.²

Mental health issues were extensively studied during the SARS (Severe Acute Respiratory Syndrome) epidemic in 2002-04³⁻⁵ and the MERS-CoV (Middle East Respiratory Syndrome Corona Virus) outbreak in 2012-14.⁶ Ping Wu *et al.*³ studied the impact of the SARS epidemic on the mental health of the hospital employees through a self-reported questionnaire. According to this study about 10% of the studied group (involved in the care of SARS patients) had high post-traumatic stress symptoms. In approximately 40% of these the post-traumatic stress symptoms persisted for a considerable period of time even after the SARS outbreak. Liu X *et al.*⁷ examined the post outbreak level of depressive symptoms among hospital employees working during the SARS epidemic and concluded that front line healthcare workers were not only at a higher risk of disease contraction, but also suffered from chronic stress, depression and work-related anxiety. It was suggested that in future the frontline healthcare workers should benefit from stress management strategies (occupational health counselling, debriefing sessions). Working conditions also influence the magnitude of psychological effects on the frontline healthcare workers taking care of patients during a health care emergency situation. During the SARS outbreak of 2003 accident and emergency department staff developed more severe post-traumatic stress disorder (PTSD) than the other hospital staff.⁸

Personal safety at work, wellbeing of the other colleagues and close family members were the main concerns among health care workers involved with the Middle East Respiratory Syndrome Corona Virus (MERS-CoV) outbreak in 2012-14.⁶

In a recent survey from China, psychological wellbeing and mental health issues of the health care staff involved in the care of COVID-19 were assessed.⁹ According to this study a considerable proportion of the frontline healthcare staff reported symptoms of depression, anxiety, insomnia and psychologic distress in terms of vulnerability of cross infection, spread of virus, personal safety and health of close family members. According to one study from Singapore¹⁰ the psychological distress, depression, anxiety, and stress experienced by healthcare workers during the COVID-19 outbreak were assessed. The study cohort was divided into medical (physicians, nurses) and non-medical (pharmacists, technicians, administrators, clerical staff, and maintenance workers) hospital staff categories. The study highlighted that nonmedical health care staff are at higher risk for psychological distress during the Covid-19 outbreak. This vulnerable group should be provided with early psychological support.

The following terms need more discussion in relation to the mental health of frontline healthcare workers involved with the care of patients infected with corona virus.

MORAL INJURY

The term moral injury is used in literature with regards to mental health issues of military veterans. Certain situations and experiences in professional life e.g. failure to prevent, learning or witnessing certain acts which hurts one's sub consciousness can result in a significant psychological distress or moral injury. Moral injury is associated with a feeling of guilt, shame, anger and disgust which leads to psychological distress. These potentially morally injurious experiences (PMIEs) have the potential to cause depression, develop a pessimistic attitude, insomnia, anxiety and post-traumatic stress disorder in a variety of professionals.¹¹ The concept of moral injury among healthcare professionals has evolved over the last 30-35 years. Moral injury can occur in frontline healthcare workers involved in the management of high impact poly trauma cases or working in an under resourced setup.¹¹

The COVID-19 pandemic is associated with a number of risk factors (lack of specific resources, ever increasing demand on services, sickness of the staff, self-quarantine) which make the frontline healthcare workers at risk of experiencing moral injury.¹²

POST-TRAUMATIC STRESS DISORDER (PTSD)

PTSD is a mental illness with a characteristic set of symptoms caused by a frightening experience or distressing event. Most people get over such experiences without any help, while in some, these experiences set off a chain reaction termed as PTSD. Fear and anxiety are the main symptoms; other features may include nightmares, flashbacks, after thoughts, and an exaggerated body response in an emergency situation. Affected persons are at a higher risk of committing suicide and intentional self-harm. The proximity and intensity of the precipitating event influences the development of PTSD. The development of PTSD in frontline healthcare workers during the SARS outbreak in 2002-04 was extensively studied.^{3, 13} The corona pandemic has all the potentials to produce anxious and mentally disturbed frontline healthcare staff with some of them possibly developing symptoms of PTSD.²

BURN OUT

When a prolonged and excessive work-related stress produces a state of emotional, mental and physical exhaustion it is termed as burn out. This concept is most commonly used in the medical profession. It manifests in professional life as fatigue, frustration, negativity and inefficiency. Chaotic working conditions and an imbalance between personal life and work can exacerbate these symptoms.

The COVID-19 pandemic has many features (uncertain future, increasing number of patients, work load, change of work pattern) which place the intensive care staff at higher risk to develop a burn out state.

CONCLUSION

The physical and mental wellbeing of the frontline healthcare workers is very important to produce favourable results in any health crisis. It is crucial to provide them with the necessary arsenals related to their work, and anticipate the work-related stressors and support them accordingly. Frontline healthcare workers taking care of COVID-19 patients are under a lot of psychological stress

and potentially at risk to develop moral injury, burnout and post-traumatic stress disorder. Hopefully, once the situation is under control, the consequences of the pandemic will be analysed in terms of human life and economic cost. We also need to assess its impact on the mental health of frontline healthcare workers; we need a focused approach and should start work right now in this regard. Psychiatric counselling, debriefing sessions and workshops on stress management should be organised for the frontline healthcare workers. Their valuable works need acknowledgment through time off, rewards, financial incentives and salary increments. Colleagues who became infected with the disease during their duties need extra support and help for their successful return to work and rehabilitation into the system. All these exercises make the frontline healthcare workers mentally strong, physically stout and a better healthy professional force to face any future health crisis.

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