

Mental Health Impact of the COVID-19 Pandemic*Miyuru Chandradasa and K. A. L. A. Kuruppuarachchi**Department of Psychiatry, Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka and Colombo North Teaching Hospital, Sri Lanka*Correspondence: K. A. L. A. Kuruppuarachchi
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E mail: lalithkuruppu@yahoo.com ORCID ID: <https://orcid.org/0000-0002-8380-2329>**Keywords:** COVID-19, Sri Lanka, Mental Health, Children, Neuropsychiatry**INTRODUCTION**

The coronavirus disease 2019 pandemic (COVID-19) has caused major changes in health, economic and social aspects of the human civilisation. It has enforced a tremendous impact on every facet of a person's life and the ecological systems we live in.

Global mental health

The uncertainty about the duration of the pandemic, limitations in health care resources, physical distancing measures, financial losses due to unemployment and loss of earnings, could lead to emotional distress and psychological manifestations. The psychological sequelae of the COVID-19 pandemic are still emerging. A systematic review published this year, shows that there is an increased prevalence of depressive and anxiety symptoms, post-traumatic stress symptoms and psychological stress in the general population [1]. More psychological distress was shown to be associated with the female gender, younger individuals, presence of chronic physical/mental illnesses, unemployment, student status, and high exposure to news concerning the pandemic [1]. Associated emotional frustration could lead to unhealthy ways of coping such as substance use and non-compliance with public safety measures.

Children, Youth and the Elderly

COVID-19 mortality is highest in the elderly. However, the impact of the loss of earnings and

mental health consequences seems to be prominently seen among the youth. A study done in China using the General Health Questionnaire showed that up to 40% of youth who participated were prone to psychological problems and this vulnerability was significantly related to being less educated, being an enterprise employee, and using negative coping styles[2]. In neighbouring India, a population-based cross-sectional study among 453 participants using the General Health Questionnaire found that 40.6% of the elderly and 40.2% of the female population were under severe psychological distress [3]. There is emerging evidence from other Asian countries that COVID-19 related psychological consequences are more prominent in youth, elderly and females.

Children and adolescents infected with COVID-19 have milder symptoms, fewer hospital admissions, and a lower fatality rate than adults [4]. Schools provide structure, meaning and rhythm to a child's day and closure leads to reduced opportunities to learn and play as before. This could have an impact on brain development during a developmentally sensitive period. In the Hubei province of China, 22.6% of school students assessed, suffered from depressive symptoms during the outbreak and 18.9% had anxiety symptoms [5]. Children with diagnosed neurodevelopmental disorders are more vulnerable to psychosocial stresses. Children with autism spectrum disorders were detected to have an increase in sleep problems and symptom scores during the home confinement in a study done in Turkey [6]. Sri Lanka suffered the Easter Sunday bomb blasts in 2019 which led to psychological trauma in children and increased child mental health referrals [7]. It is likely, that the Covid-19 would further aggravate this psychosocial

burden as children are vulnerable to abuse, neglect and domestic violence behind closed doors during the lockdown [8].

Mental Well-being

Media has a significant impact on the mental well-being of individuals. In a large cross-sectional online survey in Russia, the time spent on news consumption on COVID-19 was strongly associated with an increased state of anxiety adjusted for baseline anxiety level [9]. There was massive media coverage of the COVID-19 response in Sri Lanka and at times there was false information shared in social media leading to fear and apprehension in the society [10].

COVID-19 lockdowns led to drastic lifestyle changes. These changes are invariably related to the psychological wellbeing of the population. A study in China during the lockdown revealed that 70% of more than a thousand respondents reported increased screen time use. Reduced physical exercise and infrequent vegetable/fruit intake were associated with lower subjective wellbeing [11]. A web-based survey in the USA had revealed that COVID-19 prompted about a quarter of respondents to reduce their tobacco cigarette and electronic cigarette use, and more than a third to increase their motivation to quit these habits. Among the participants, a greater perceived risk of COVID-19 was associated with increased motivation to quit [12]. However, an online survey in China among 6416 participants showed that during the COVID-19 pandemic, 46.8% reported increased internet use dependence, and 19% relapsed from abstinence to alcohol use and 25% to cigarette smoking [13].

Aetiology of psychiatric symptoms

Apart from the pandemic-associated psychosocial stress, the direct effects of the COVID-19 itself on the brain is not yet clear. It is likely that the subsequent immunologic response of the host on the central nervous system leads to possible immediate and delayed neuropsychiatric manifestations. Pandemics in the past decades have demonstrated many types of neuropsychiatric symptoms. These included mood changes, psychosis, encephalopathy, neuromuscular dysfunction, and demyelinating processes [14]. Neuropsychiatric complications have been reported

with other viral epidemics such as influenza and dengue [15,16].

After 1-3 months from the virus clearance, 105 COVID-19 patients were assessed in Italy and 30% were found to have pathological depressive/anxiety scores which were associated with persistence of physical symptoms [17]. In a recent UK-wide surveillance study, many patients with COVID-19 related neuropsychiatric complications were reported. These included altered mental status with unspecified encephalopathy, encephalitis, new-onset psychosis, neurocognitive syndrome, and affective disorder [18]. Further research will make the aetiology of this symptomatology more evident.

Health care workers

The COVID-19 pandemic has overwhelmed the health care services around the world. Health care workers are burdened by the unparalleled morbidity and mortality in the affected patients and the possibility of contracting the highly infectious disease themselves. In a recent rapid review, it was shown that, in an epidemic, health care workers working with affected patients are prone to acute and long-term mental health consequences such as psychological distress, sleep disturbances, substance misuse, post-traumatic stress symptoms, and depressive and anxiety symptoms [19]. A meta-analysis published recently stated that health professionals treating COVID-19 patients were severely affected by depression, anxiety, distress, insomnia, and indirect traumatisation compared to other occupational groups [20].

More than 10,000 medical postgraduate trainees in Pakistan were assessed using online psychometric scales during the outbreak and the prevalence of depressive symptoms, generalised anxiety disorder and acute stress disorder were at 26.4%, 22.6% and 4.4%, respectively [21]. Not only COVID patients and recovered persons but also health care workers are prone to stigma related to infectious disease. High perceived stigma and stress were detected among Indian doctors in a recent study and these parameters were significantly higher among female physicians [22].

Due to the stressful work circumstances and risk of illness to health care workers, their loved ones could also suffer the emotional burden. For the first time, children of health professionals in the frontline of the COVID-19 response in Sri Lanka have been

reported with emotional and behavioural dysregulation [23]. If high-quality services need to be maintained, the health care workers themselves need to be screened for psychological distress and provided with mental health support.

Sri Lanka

According to the labour force survey, 67% of health care workers in close contact with patients in Sri Lanka are females [24]. They are at a heightened risk of Covid-19 exposure. Due to the fear of transmission of the infection, the community turned against them [25]. These women apart from their paid work are responsible for the care of their children and elderly relatives. Some of them became helpless as the schools were closed and also, relatives and neighbours refused to assist due to the fear of being infected. They were experiencing increased discrimination, with instances where they were refused access to public transport and grocery shops. At times, landlords reportedly evicted certain hospital staff from their lodgings [25].

Pregnancy during the COVID-19 pandemic is likely to cause anxiety amongst mothers and worry amongst family members. In a study conducted among 257 pregnant women in Sri Lanka during the pandemic, the prevalence of anxiety and depression according to the validated Hospital Anxiety and Depression Scale was 17.5% and 19.5% respectively [26]. This was much higher than the previously reported prevalence of 16.2% of antenatal depression in 2013 in Sri Lanka [27].

In a recent study exploring the impact of the pandemic on small and medium scale enterprises in Sri Lanka, it was shown that the mitigating strategies to combat the COVID-19 have resulted in high economic and human costs. The employers and employees of these enterprises were affected due to the shortage of materials, a decline in demand for their products, defaulting repaying loans, lack of savings and delay in salaries [28]. The situation has become emotionally challenging to many, which could lead to widespread psychological distress and mental health consequences.

Health professionals need to be aware of the heightened risk of psychological distress in the public and themselves. Hospitals and community health services need to screen and intervene to prevent aggravation of psychological manifestations. Psychotherapeutic interventions such as progressive

muscle relaxation have been shown to reduce anxiety and improve sleep quality in patients with COVID-19 in randomised trials and could be adapted to local health care settings [29]. Further, as health professionals, we can employ cognitive behavioural interventions as psychological first aid, such as empathic listening, validation of the crisis, self-monitoring via emotion and thought diaries, behavioural activation methods, and coping strategy training to provide relief to those who are affected psychologically [30]. A holistic approach to health that understands the importance of physical as well as mental wellbeing should be advocated at all sectors and hierarchical levels.

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