Global imperative to combat stigma associated with the coronavirus disease 2019 pandemic

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The Coronavirus Disease 2019 (COVID-19) was first identified in Wuhan, China in December 2019 before it was declared as a pandemic by the World Health Organization (WHO) in March 2020. Regrettably, the COVID-19 pandemic has often been erroneously associated with specific countries, regions, or ethnicities, which could potentially lead to prejudice and discrimination against certain places and people. For instance, China has been blamed by some influential politicians (Nature, 2020), and some mass media has held China solely responsible for the rapid global transmission of COVID-19 (Zheng, Goh, & Wen, 2020). As a result, during the COVID-19 outbreak there has been an increase in racial discrimination against people of Chinese and Asian background globally, including students being subjected to racist aggression (King, Leow, Carbakarpa, & Ng, 2020). Seemingly, people residing in COVID-19 infected areas, such as in Wuhan, were subjected to disproportionate prejudice and discrimination compared to other non-infected regions (Zheng et al., 2020). Recently, the mental health impacts of the COVID-19 outbreak, including depression, anxiety, and sleep disturbances, have been vigorously investigated in vulnerable populations, such as frontline health professionals, infected patients, psychiatric patients, and the general population. However, the social stigma associated with COVID-19 has not been given sufficient attention in research studies.

Previous studies have found that patients with severe infectious diseases, such as severe acute respiratory syndrome (SARS) and acquired immunodeficiency syndrome (AIDS), were common targets of discrimination. During the COVID-19 pandemic, infected patients are arguably the most vulnerable group to endure the damaging effects of stigma on mental health and increased risk of psychological comorbidities including depression, stress-related disorders, and sleep disturbances. The fear of stigmatization may prevent at-risk individuals from appropriately seeking medical help in a timely manner (Chang et al., 2004), which could increase the community transmission risk, and delay treatment for patients in critical physical conditions. Regarding the frontline health professionals and volunteers, stigma could increase the risk of psychological distress and burnout. Those who have been quarantined may also have difficulty in returning to their workplace due to stigma and discrimination, which could lead to loss of productivity and income.

Similar to other epidemics of novel diseases, COVID-19 is also characterized by high risk of contagion and mortality, uncertain prognosis and lack of effective treatment in certain subpopulations (WHO Director, 2020), all of which can cause widespread public fear. The extensive media coverage of the infection as well as the 'infodemic' of inaccurate information may further deepen the misunderstanding of the disease and escalate the level of stigmatization towards people suffering from the disease. In addition, mass quarantine which has been used to effectively control disease transmission in many countries, can inadvertently heighten the stigma (Lee, Chan, Chau, Kwok, & Kleinman, 2005). Certain features of COVID-19 may also increase the likelihood of associated stigmatization. For instance, COVID-19 can have a long incubation period of up to 33 days and the COVID-19 test has a relatively high rate of false-negative results (Xu et al., 2020), leading to unsuccessful identification of at-risk patients even after the two-week quarantine (Jiang et al., 2020). Further, there were concerns that a small proportion of recovered patients have later tested positive again after discharge (Lan et al., 2020). What is more, a considerable proportion of COVID-19 infected cases are in fact asymptomatic carriers (Nishiura et al., 2020), who can readily infect others (Aguilar, Faust, Westafer, & Gutierrez, 2020). All the aforementioned factors could worsen the fear and stigma associated with COVID-19 among infected patients, suspected cases, close contacts, residents in epicentres of infection and frontline medical staff.

It is imperative that stigma associated with the COVID-19 pandemic must be addressed. As cited in *Nature*, 'viruses do not discriminate, everyone is at risk, coronavirus stigma must stop' (Nature, 2020). Timely and effective measures need to be developed and implemented to address COVID-19-related stigma. Here, we suggest several major key points to be considered. Firstly, global international and multi-sector collaboration should be immediately established to combat COVID-19-related stigma and discrimination. For example, large-scale epidemiological studies should be conducted to investigate the patterns of stigma in different populations and regions affected by the COVID-19 outbreak. The results from these studies can inform anti-stigma and anti-discrimination guidelines while incorporating local institutional policies and public education programs. Secondly, accurate information on the clinical features of COVID-19 which are critically linked to its public perception, such as the degree of transmissibility in asymptomatic carriers and the recurrence rate of COVID-19 in recovered patients, should be disseminated to reduce uncertainty and alleviate public fear. Thirdly, healthcare professionals, recovered patients and quarantined individuals should be applauded publically, such as through media coverage to promote positive perception towards vulnerable subpopulations. Lastly, appropriate anti-stigma interventions should be integrated into psychological crisis intervention strategies to reduce the negative impact of stigma on affected populations.

Stigmatization is common during a pandemic and likely to exacerbate the adverse psychological and social impact of the infection. Learning from the past experience of several viral epidemics in recent decades, the development and implementation of timely measures based on international and multisector collaboration could help reduce COVID-19-related stigma.

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