



Can South Asian Countries Cope with the Mental Health Crisis Associated with COVID-19?

Md Aslam Mia¹ • Mark D. Griffiths²

Accepted: 15 January 2021/Published online: 16 February 2021

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC part of Springer Nature 2021

There had been a surge in the number of infections and deaths worldwide within the last 12 months due to the novel coronavirus disease-2019 (COVID-19). At the time of writing (January 7, 2021), the virus had infected over 87.58 million people and killed nearly 1.90 million globally (Johns Hopkins University 2020). In Southern Asia, the cases of infection and death had risen sharply in Bangladesh (518,898 infections; 7687 deaths), Bhutan (755; 0), India (10,395,278; 150,336), Nepal (263,193; 1899), the Maldives (13,967; 48), Sri Lanka (46,248; 219) and Pakistan (495,075; 10,511) (as of January 7, 2021) (Johns Hopkins University 2021). This deadly virus had not only affected people physically and resulted in their need for therapeutic treatment but also psychologically and economically owing to spatial distancing, self-isolation, and lockdown measures. This had consequently resulted in the increased need for psychological crisis intervention (Mukhtar 2020). The continuous spread of the COVID-19 virus and the expected surge in mental health-related issues including fear and worry could result in a mental health crisis (ABC News 2020; Lin 2020; Ahorsu et al. 2020) in which developing countries (including those in South Asia) are likely to be mostly hit, owing to the fragile and limited resources in their psychiatric health systems.

Although most South Asian countries announce the number of COVID-19 cases on a regular basis, reports on the mental health issues of individuals are still lacking. Therefore, it is difficult to provide the accurate or aggregate number of mental health cases arising from COVID-19 in South Asian countries due to the paucity of credible data. Moreover, no precise assessment of COVID-19-related mental health problems exists (Ransing et al. 2020). Consequently, an understanding of the true effect of COVID-19-induced mental health cases remains unclear or may be underreported.

Numerous studies (as well as media reports) have highlighted a significant rise in mental health cases in Bangladesh (e.g. Banna et al., 2020; Yeasmin et al. 2020; Islam et al. 2020a; Islam et al. 2020b; Hamadani et al. 2020; Iqbal et al. 2020), India (e.g. Das 2020; Mitra 2020; Krishnaswami 2020), the Maldives (e.g. Maldives Insider 2020; Moosa et al. 2020), Nepal

✉ Md Aslam Mia
aslammia@usm.my

¹ School of Management, Universiti Sains Malaysia, 11800 Penang, Malaysia

² Psychology Department, Nottingham Trent University, 50 Shakespeare Street, Nottingham NG1 4FQ, UK

(e.g. Devkota et al. 2020; Sharma et al. 2020; Poudel and Subedi 2020), Pakistan (e.g. Haider et al. 2020; Mumtaz 2020; Mukhtar 2020) and Sri Lanka (e.g. Herat 2020) due to COVID-19. A recent large-scale study from the USA reported that one in five COVID-19 patients develop mental health issues (e.g. anxiety, depression, and insomnia) within 90 days of infection (Taquet et al. 2020). Based on these studies, there is a good reason to believe that the number of mental health cases will continue to rise in the South Asian region owing to the surge in COVID-19 infections in recent months.

Several reasons exist as to why COVID-19 may induce mental health issues (including suicide in extreme cases) among the general public during and after the pandemic (Gunawan et al. 2020; Mahmud and Islam 2020; Sher 2020). First, social prejudice and COVID-19-induced xenophobia (Haynes 2020) in South Asian countries are mostly unavoidable and could exacerbate mental health issues amid the pandemic. For instance, multiple cases have been recorded in which individuals committed suicide without being diagnosed with COVID-19, owing to the mental health issues induced by the virus.¹ In India, a 50-year-old man committed suicide after being diagnosed with a viral illness by the doctor, which was misunderstood by the patient as COVID-19 (Goyal et al. 2020). A similar incident also occurred in Bangladesh when a man returning to his village from the capital city of Dhaka exhibited COVID-19 symptoms and committed suicide due to social harassment and xenophobia from fellow villagers. An autopsy revealed that he did not have the virus in the first place (Mamun and Griffiths 2020).

Second, depression and anxiety among individuals are rampant due to the economic repercussions of COVID-19. Approximately 120 countries worldwide implemented a partial or total lockdown when COVID-19 was first identified in their respective regions, and this significantly curtailed the income-generating activities of millions of people. Although countries are now gradually easing such restrictions to protect their economy and citizens' means of livelihood, it will still take several years to attain a pre-COVID-19 economy. This inherently exerts extra pressure on low-income households that are struggling to acquire basic needs such as food and necessary expenses due to the loss of millions of jobs. A notable story gained a lot of media attention in Bangladesh where a woman sold her hair to another woman for BDT 180 (less than \$3) to feed her infant because her husband lost his job during the lockdown (Prothom Alo 2020). Additionally, at the onset of the pandemic (April 2020), nearly 200 people died in India during the lockdown due to starvation, exhaustion, and lack of food or income, among others (Gulf News 2020). Such examples demonstrate how the economic toll of COVID-19 can result in mental and emotional turmoil, which could be suicidal in extreme cases.

Third, the spatial distancing, isolation and quarantining approach implemented by most countries to mitigate the spread of COVID-19 is economically and socially problematic (Yezli and Khan 2020) and can increase loneliness, depression, and anxiety among individuals, including senior citizens (Grossman et al. 2021; Santini et al. 2020). For example, in the UK, Li and Wang (2020) reported that "35.86% of respondents sometimes or often feel lonely during COVID-19" (p. 1), and those who have or had COVID-19-related symptoms were lonelier and more likely to develop general psychiatric disorders. Amidst the lockdown in Israel, Grossman et al. (2021) reported that COVID-19-induced loneliness resulted in insomnia

¹ Here, we provide some individual examples to better understand COVID-19-related mental health issues at an individual level. While these do not represent the overall situation in a specific country, they help convey the daily mental health struggles in COVID-19-infected areas.

among the elderly. Furthermore, the international travel restrictions imposed by several countries also put thousands of migrants (e.g. labour workers, students, and tourists) in deep distress (Mia and Griffiths 2020). Stress, anxiety, depressive symptoms, and insomnia have also been experienced by frontline workers such as health workers in hospitals, care homes, and hospices, particularly because they have to isolate themselves from family members and relatives (Spoorthy 2020). Overall, the impact of COVID-19 on mental health could become severe among some individuals and may lead to suicide attempts if appropriate psychiatric interventions are not provided in a timely manner (Sher 2020).

The expected mental health crisis could become exacerbated particularly in the South Asian region if COVID-19 continues to take more lives and jobs. A potential reason for this severe mental health crisis could result from the lack of initiatives by the governments of these countries to tackle mental health issues arising from COVID-19 and the fragile health facilities in the region (Amnesty International 2020; Chalise 2020; De Sousa et al. 2020). Therefore, the current condition of the psychiatric facilities in seven South Asian countries was examined (Bangladesh, Bhutan, India, Nepal, the Maldives, Sri Lanka, Pakistan). Given the condition that mental health issues are becoming more apparent due to governments' policies to inhibit the spread of COVID-19, a surge in the demand for psychiatric treatment is imminent.

To better understand the level of preparedness of South Asian countries in coping with mental health problems, the mental health financing schemes, human resources, and service availability of seven South Asian countries were assessed based on secondary data provided by the World Health Organization (WHO). Information on the selected parameters from the World Health Organization (2017a, b) was also obtained to prepare the country and global reports. Only few variables having data and commonly used by researchers in psychiatric facility assessment were selected for most of the countries. The main reason for examining secondary data was to determine the available psychiatric facilities in South Asian countries, and by so doing, descriptive types of analysis were employed and a comparison of the mental health facilities in the seven South Asian countries was made.

As COVID-19 has resulted in unemployment across several countries due to stricter lockdown in its early days, a greater proportion of the South Asian countries' informal-employment population was observed to have spent the meagre savings they had. This lack of financial resources could be detrimental to individuals, causing them to seek mental health treatment from public and private health service providers. This is due to the absence of national health insurance facilities or reimbursement schemes by some South Asian countries to cover medical costs, resulting in the cost being borne by the patients themselves (Tables 1, 2 and 3). Although some citizens are eligible for free medical treatment, the initial payment is still borne by them before being eventually reimbursed. This up-front payment makes it impossible for millions of poor citizens in South Asian countries to seek medical attention.

The necessary resources (especially psychiatrists) to address the mental health issues resulting from COVID-19 in South Asia are lacking. For instance, Bangladesh has a psychiatrist-population ratio of approximately 0.13:100,000 individuals and is the lowest among all South Asian Countries. In contrast, the Maldives has the highest psychiatrist-population ratio of approximately 2.39 per 100,000 individuals (slightly above the global median) but still far away from one psychiatrist per 10,000 individuals in Europe (Tasman 2015). Although there is no consensus on the required optimal psychiatrist-population ratio, a range of 3.8 to 15.8 per 100,000 people is recommended based on experiences of countries across the world (Robiner 2006).

Table 1 Mental health financing in the South Asian region (2017)

	National health insurance or reimbursement schemes*	Self-pay**	Source of payment for mental health services (Global)	The government's total expenditure on mental health expressed as a % of total government health expenditure	Global median health budget to mental health
Bangladesh	No	100%	83% of countries	0.50%	< 2%***
Bhutan	No	0%	where persons pay nothing (fully insured) or at least	0.30%	
India	Yes	100%	nothing (fully insured) or at least	1.30%	
Nepal	Yes	100%	20% towards cost of mental health services	–	
The Maldives	Yes	100%	20% towards cost of mental health services	–	
Sri Lanka	Yes	0%	20% towards cost of mental health services	–	
Pakistan	No	≥ 20%	services	0.40%	

Source: Authors' calculation based on World Health Organization (2017a, b) country and global reports. Note: The missing values indicate none or not reported by the respective countries

*The care and treatment of persons with major mental disorders (psychosis, bipolar disorder, depression)

**A 100% value implies that persons pay mostly or entirely from their pockets for services and medicines, while 0% implies that persons pay nothing at the point of service use (fully insured)

***The < 2% is based on the global sample of the partnering countries of WHO that provided data. The purpose of including this is to make a comparison between South Asian countries and the global median

Considering this range, South Asian countries lag behind in the minimum psychiatrists' requirements for the treatment of mental health patients. It is also surprising that there are no child psychiatrists in some countries such as Bhutan and the Maldives according to WHO reports, as past major disasters have demonstrated that children are also prone to mental health issues (Madrid et al. 2006) and COVID-19 (Wang et al. 2020). Furthermore, the uneven distribution of mental health professionals between different geographical locations of a country and the huge migration from urban to rural areas at the onset of the lockdown make it more challenging to contain the surge in poor mental health.

Table 2 Availability of human resources for mental health in South Asia (2017)

	Total number of mental health professionals (gov. & non-gov.)	Total number of mental health workers per 100,000 people	Median number of global mental health professionals (workers) per 100,000 people	Total number of child psychiatrists (gov. & non-gov.)	Number of psychiatrists per 100,000 people	Global median of number of psychiatrists per 100,000 people
Bangladesh	1893	1.17	9	4	0.13	1.3*
Bhutan	5	0.64	-	-	0.51	
India	25,312	1.93	49	49	0.29	
Nepal	413	1.44	1	1	0.36	
The Maldives	27	6.45	-	-	2.39	
Pakistan	-	-	-	-	-	
Sri Lanka	1480	7.14	6	6	0.52	

Source: Authors' calculation based on World Health Organization (2017a, b) country and global reports. The figure includes both government and non-government health professionals. Note: The missing values indicate none or not reported by the respective countries

*1.3 is based on the global sample of the partnering countries of WHO that provided data. The purpose of including this is to make a comparison between South Asian countries and the global median

Table 3 Mental health service availability and uptake (2017)

	Outpatient facility		Inpatient facility			
	Mental health outpatient facilities attached to a hospital	Outpatient facility specifically for children and adolescents	Mental hospitals	Psychiatric units in general hospitals	Residential care facilities	Inpatient facility for children and adolescents
Bangladesh	69	20	2	56	72	2
Bhutan	28	-	-	1	-	-
India	952	139	136	389	223	45
Nepal	29	3	6	18	-	-
The Maldives	6	-	-	1	1	-
Sri Lanka	230	25	1	31	23	1
Pakistan	3729	3	11	800	578	2

Source: Authors' calculation based on World Health Organization (2017a, b) country and global reports. Note: The missing values indicate none or not reported by the respective countries

Another crucial consideration in the containment of a potential mental health crisis is the availability of mental health services that can deal with the prevention and treatment of mental disorders (Samartzis and Talias 2019). In terms of outpatient and inpatient facilities, South Asian countries have limited physical capacity to treat mental health victims impacted by COVID-19. For example, Bangladesh has 69 outpatient facilities attached to its hospitals, with only two mental hospitals for a population of over 170 million people. On the other hand, Pakistan has the highest number of outpatient facilities ($n = 3729$) among the seven South Asian countries with only three such facilities to treat children and adolescents.

The lack of sufficient inpatient mental hospitals and facilities for children and adolescents puts Bhutan and the Maldives in great danger if a mental health outbreak due to COVID-19 was to occur. Moreover, with a population of over 1.2 billion people in India, having only 952 out-patients and 136 mental hospitals is far below the requirement needed. The availability of mental hospital beds-per-100,000 people in South Asian countries is lower than the global median and even lower-middle-income countries. In terms of the psychiatric beds-per-100,000 people in general hospitals, South Asian countries except for Sri Lanka and Pakistan are also below the world median. However, the reported South Asian countries have relatively more inpatient residential care beds than the median of middle-income countries. Only India and the Maldives have inpatient residential care beds above the global median.

As most countries continue the battle to diagnose and provide treatment to COVID-19 patients, the inadequate number of healthcare professionals and facilities in South Asian countries may force respective authorities to transfer resources from mental health facilities in the fight against COVID-19. If this occurs, fewer resources will become available to provide treatment for mental health issues, further aggravating the already poor state of mental health services in those countries.

Based on the data presented above, the overall number of mental health facilities in South Asian countries is very poor compared to international health standards or WHO recommended levels (Table 4). It is, therefore, very likely that the seven South Asian countries examined here will be unlikely to cope with a surge in mental health issues arising from the COVID-19 pandemic. Earlier studies have already highlighted the lack of mental health facilities and human resources in the South Asian region prior to the COVID-19 pandemic (Dastagir 2011; Isaac 2011; Kala and Kala 2008; Thara and Padmavati 2013). Therefore, the

current healthcare resources/facilities will be unable to cope with the demand for mental health services.

The decade-long insignificant investment and less attention to mental health services are of important concern to policymakers in South Asian countries in the wake of the pandemic. Governments of these seven countries must direct immediate attention to the neglected mental health sector to cope with the surge in mental health issues resulting from COVID-19. We hope that this pandemic will elicit a response from governments and policymakers to make special provisions for standard mental healthcare facilities/resources to combat any future consequences that has been previously envisaged by international agencies including the WHO (Meshvara 2002).

Several countries outside South Asia have announced the allocation of millions of dollars on stimulus packages to revive the economy, and the adequate allocation of health facilities should be a priority for any country at the moment. Although there is no “overnight” solution to the decade-old poor and fragile mental health systems in the South Asian region, an innovative approach is required to tackle the COVID-19 outbreak and the ensuing mental health crisis, while utilizing the limited available resources.

Considering the nature of mental health issues arising from COVID-19, professional mental healthcare alone may be insufficient to combat the potential crisis. Therefore, other initiatives targeting the economic aspects of mental health issues may be useful. As an instance, since unemployment rates in South Asia have consistently soared, ensuring a basic food supply for the needy and vulnerable groups will boost confidence levels and help them to cope with mental health consequences. As food supplies have become limited due to the curb in production activities, an efficient and proper distribution channel, particularly for government relief programs, is of paramount importance, owing to the absence of a choice between lives and means of livelihood (Khatun 2020). Recently, several media reports have surfaced indicating the mismanagement and improper distribution of food supplies in South Asian countries (e.g. Bangladesh), and continuing this without levelling sanctions will affect individuals’ mental health, as they become deprived of basic needs (Daily Star 2020).

Table 4 The inpatient mental health beds availability per 100,000 people in 2017

	Mental hospital Beds	Psychiatric unit beds in general hospitals	Residential care beds	Child and adolescents bed
Bangladesh	0.43	0.31	2.24	0.02
Bhutan	-	1.27	-	-
India	1.43	0.56	5.18	0.03
Nepal	0.58	1.18	-	-
The Maldives	-	0.96	41.83	-
Sri Lanka	4.97	3.96	1.33	0.1
Pakistan	2.47	3.27	2.99	0.01
Lower middle-income countries	5.1	0.9	0.9	*
World median	11.3	2	3.8	*

Source: Authors’ calculation based on World Health Organization (2017a, b). Note: The missing values indicate none or not reported by the respective countries. The annual admissions under each of the categories were not reported here. The ‘bold’ values of lower middle-income countries and world median has no specific meaning. It is to highlight and compare the inpatient mental health beds for selected South Asian countries.

*Not readable from the World Health Organization (2017a) report

Although the literature has suggested online-based mental health intervention as one of the effective ways to mitigate the psychological consequences of social distancing (Liu et al. 2020; Mamun and Griffiths 2020), this may be insufficient for South Asian countries having a low internet penetration rate of 32%–68% (Internet World Stata 2020) Therefore, non-internet-based mental health intervention should also be promoted to reach more individuals (Sharma et al. 2020). Self-assessment health applications developed by the Malaysian government to monitor the health progress of individuals and disseminate authentic information (New Straight Times 2020) could be one of the ways to effectively tackle widespread misinformation and panic.

Moreover, studies have also shown mass media campaigns as being helpful in boosting the help-seeking attitude of potential victims (e.g. individuals with mental health issues and suicidal thoughts) (Pirkis et al. 2019). Therefore, South Asian countries may utilize available broad media networks (e.g. television programs, radio channels, social media), because social stigma (due to diverse and complex social systems and discrimination among various races and religions in South Asian countries) and non-cooperation of community members could limit physical and direct access to mental health treatment. Moreover, since several NGOs operate in the South Asian health sector, their extensive network could be used to increase awareness on mental health and particularly the aftermath of the COVID-19 pandemic by utilizing their existing physical and financial resources. To scale up, government or philanthropic organizations could also provide financial support to these NGOs for the rapid propagation of mental health-related campaigns to the masses.

As observed from previous epidemics and pandemics, COVID-19 will result in various mental health issues during and after the pandemic (Das 2020). However, based on available data, South Asian countries are unlikely to effectively tackle increasing mental health problems in the coming months. By examining the available mental health facilities, existing resources appear to be limited in South Asian countries. Given the nature of mental health issues arising from COVID-19, a well-coordinated and functioning mental health taskforce comprising relevant government agencies, psychiatrists, philanthropists, non-governmental organizations, and community could mitigate the potential mental health crisis in South Asian countries and restrict the demand on the poor and fragile mental health facilities.

Declarations

Ethical Approval Not applicable.

Conflict of Interest The authors declare that they have no conflict of interest.

References

- Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The fear of COVID-19 scale: Development and initial validation. *International journal of mental health and addiction*, 1–9. Advance online publication. <https://doi.org/10.1007/s11469-020-00270-8>.
- Amnesty International (2020). South Asia: As COVID-19 spreads, fears rise for people at higher risk. Retrieved July 13, 2020, from: <https://www.amnesty.org/en/latest/news/2020/03/south-asia-as-covid19-spreads-fears-rise-for-people-at-higher-risk/>
- Chalise, H. N. (2020). South Asia is more vulnerable to COVID-19 pandemic. *Archives of Psychiatry and Mental Health*, 4, 046–047.

- Daily Star (2020). Relief rice theft amid raging Covid-19 crisis. Retrieved May 4, 2020, from: <https://www.thedailystar.net/backpage/news/relief-rice-theft-amid-raging-covid-19-crisis-1892002>.
- Das, S. (2020). Mental health and psychosocial aspects of COVID-19 in India: The challenges and responses. *Journal of Health Management*, 22(2), 197–205. <https://doi.org/10.1177/0972063420935544>.
- Dastagir, S. G. (2011). Mental health in Afghanistan: Burden, challenges and the way forward. Health, nutrition and population (HNP) discussion paper, World Bank, Washington, DC. Retrieved October 16, 2020, from: <https://openknowledge.worldbank.org/handle/10986/13589>
- De Sousa, A., Mohandas, E., & Javed, A. (2020). Psychological interventions during COVID-19: Challenges for low and middle income countries. *Asian Journal of Psychiatry*, 51, 102128. Advance online publication. <https://doi.org/10.1016/j.ajp.2020.102128>.
- Devkota, H. R., Sijali, T. R., Bogati, R., Ahmad, M., Shakya, K. L., & Adhikary, P. (2020). The impact of COVID-19 on mental health outcomes among hospital fever clinic attendants across Nepal: A community-based cross-sectional study. *medRxiv*, 2020.2007.2028.20163295. doi:<https://doi.org/10.1101/2020.07.28.20163295>.
- Goyal, K., Chauhan, P., Chhikara, K., Gupta, P., & Singh, M. P. (2020). Fear of COVID 2019: First suicidal case in India! *Asian Journal of Psychiatry*, 49, 101989. <https://doi.org/10.1016/j.ajp.2020.101989>.
- Grossman, E. S., Hoffman, Y., Palgi, Y., & Shrira, A. (2021). COVID-19 related loneliness and sleep problems in older adults: Worries and resilience as potential moderators. *Personality and Individual Differences*, 168, 110371. <https://doi.org/10.1016/j.paid.2020.110371>.
- Gulf News (2020). The human cost of India's coronavirus lockdown: Deaths by hunger, starvation, suicide and more. Retrieved May 4, 2020, from: <https://gulfnews.com/world/asia/india/the-human-cost-of-indias-coronavirus-lockdown-deaths-by-hunger-starvation-suicide-and-more-1.1586956637547>.
- Gunawan, J., Juthamane, S., & Aunguroch, Y. (2020). Current mental health issues in the era of Covid-19. *Asian Journal of Psychiatry*, 51, 102103. <https://doi.org/10.1016/j.ajp.2020.102103>.
- Haider, I., Tiwana, F., & Tahir, S. (2020). Impact of the COVID-19 pandemic on adult mental health. *Pakistan Journal of Medical Sciences*, 36(COVID19-S4), S90-S94. <https://doi.org/10.12669/pjms.36.COVID19-S4.2756>.
- Hamadani, J. D., Hasan, M. I., Baldi, A. J., Hossain, S. J., Shiraji, S., Bhuiyan, M. S. A., . . . Pasricha, S.-R. (2020). Immediate impact of stay-at-home orders to control COVID-19 transmission on socioeconomic conditions, food insecurity, mental health, and intimate partner violence in Bangladeshi women and their families: An interrupted time series. *The Lancet Global Health*. Advance online publication. doi:[https://doi.org/10.1016/S2214-109X\(20\)30366-1](https://doi.org/10.1016/S2214-109X(20)30366-1).
- Haynes, S. (2020). As coronavirus spreads, so does xenophobia and anti-Asian racism. *Time*, March 6. Retrieved May 4, 2020, from: <https://time.com/5797836/coronavirus-racism-stereotypes-attacks/>
- Herat, M. (2020). "I feel like death on legs": COVID-19 isolation and mental health. *Social Sciences & Humanities Open*, 2(1), 100042. <https://doi.org/10.1016/j.ssaho.2020.100042>.
- Internet World Stata (2020). Asia marketing research, internet usage, population statistics and Facebook subscribers. Retrieved October 16, 2020, from: <https://www.internetworldstats.com/asia.htm>.
- Iqbal, Y., Jahan, R., Yesmin, S., Selim, A., & Siddique, S. N. (2020). COVID-19-related issues on tele-counseling helpline in Bangladesh. *Asia-Pacific Psychiatry*, e12407. Advance online publication. <https://doi.org/10.1111/appy.12407>.
- Isaac, M. (2011). Mental health services in South Asia: Past, present and future. *South Asian Journal of Psychiatry*, 2(1), 4–12.
- Islam, M. A., Barna, S. D., Raihan, H., Khan, M. N. A., & Hossain, M. T. (2020a). Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh: A web-based cross-sectional survey. *PLoS One*, 15(8), e0238162. <https://doi.org/10.1371/journal.pone.0238162>.
- Islam, S. M. D.-U., Bodrud-Doza, M., Khan, R. M., Haque, M. A., & Mamun, M. A. (2020b). Exploring COVID-19 stress and its factors in Bangladesh: A perception-based study. *Heliyon*, 6(7), e04399. <https://doi.org/10.1016/j.heliyon.2020.e04399>.
- Johns Hopkins University (2021). COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE). Retrieved January 7, 2021, from: <https://coronavirus.jhu.edu/map.html>.
- Kala, A. K., & Kala, K. (2008). Mental health legislation in developing countries with special reference to South Asia: Problems and solutions. *Global Social Policy*, 8(3), 308–311.
- Khatun, F. (2020). No choice between lives and livelihoods. *The Daily Star*. Retrieved May 4, 2020, from: <https://www.thedailystar.net/opinion/macro-mirror/news/no-choice-between-lives-and-livelihoods-1894294>.
- Krishnaswami, N. (2020). Covid-19: Rise in mental health issues indicates need to change our priorities. *The Times of India*, May 24. Retrieved October 16, 2020, from: <http://timesofindia.indiatimes.com/articleshow/75937103.cms>.
- Li, L. Z., & Wang, S. (2020). Prevalence and predictors of general psychiatric disorders and loneliness during COVID-19 in the United Kingdom. *Psychiatry Research*, 291, 113267.

- Lin, C. Y. (2020). Social reaction toward the 2019 novel coronavirus (COVID-19). *Social Health and Behavior*, 3(1), 1.
- Liu, S., Yang, L., Zhang, C., Xiang, Y.-T., Liu, Z., Hu, S., & Zhang, B. (2020). Online mental health services in China during the COVID-19 outbreak. *The Lancet Psychiatry*, 7(4), e17–e18.
- Madrid, P. A., Grant, R., Reilly, M. J., & Redlener, N. B. (2006). Challenges in meeting immediate emotional needs: Short-term impact of a major disaster on children's mental health: Building resiliency in the aftermath of Hurricane Katrina. *Pediatrics*, 117(Supplement 4), S448–S453.
- Mahmud, A., & Islam, M. R. (2020). Social stigma as a barrier to Covid-19 responses to community well-being in Bangladesh. *International Journal of Community Well-Being*. Advance online publication. <https://doi.org/10.1007/s42413-020-00071-w>.
- Maldives Insider (2020). Maldives lockdown takes heavy toll on mental health, sees threefold hike in patients. May 31. Retrieved October 16, 2020, from: <https://maldives.net.mv/38100/maldives-lockdown-takes-heavy-toll-on-mental-health-sees-threefold-hike-in-patients/>
- Mamun, M. A., & Griffiths, M. D. (2020). First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: Possible suicide prevention strategies. *Asian Journal of Psychiatry*, 51, 102073. <https://doi.org/10.1016/j.ajp.2020.102073>.
- Meshvara, D. (2002). Mental health and mental health care in Asia. *World Psychiatry*, 1(2), 118–120.
- Mia, M. A., & Griffiths, M. D. (2020). Letter to the Editor: The economic and mental health costs of COVID-19 to immigrants. *Journal of Psychiatric Research*, 128, 23–24. <https://doi.org/10.1016/j.jpsychires.2020.06.003>.
- Mitra, E. (2020). India didn't prioritize mental health before Covid-19. Now it's paying the price. *CNN*, September 7. Retrieved October 16, 2020 from: <https://edition.cnn.com/2020/09/06/india/india-mental-health-dst-intl-hnk/index.html>
- Moosa, S., Suzana, M., Najeeb, F., Abdul Raheem, R., Ibrahim, A., Riyaza, F., & Usman, S. K. (2020). Preliminary report: Study on socio-economic aspects of Covid-19 in the Maldives (Round One-May 2020). Maldives National University.
- Mukhtar, S. (2020). Pakistanis' mental health during the COVID-19. *Asian Journal of Psychiatry*, 51, 102127. <https://doi.org/10.1016/j.ajp.2020.102127>.
- Mumtaz, M. (2020). COVID-19 and mental health challenges in Pakistan. *International Journal of Social Psychiatry*. Advance online publication. <https://doi.org/10.1177/0020764020954487>.
- New Straits Times (2020). MySejahtera app disseminates Covid-19 information. Retrieved October 16, 2020, from: <https://www.nst.com.my/news/nation/2020/04/583117/mysejahtera-app-disseminates-covid-19-information>.
- Pirkis, J., Rossetto, A., Nicholas, A., Ftanou, M., Robinson, J., & Reavley, N. (2019). Suicide prevention media campaigns: A systematic literature review. *Health Communication*, 34(4), 402–414. <https://doi.org/10.1080/10410236.2017.1405484>.
- Poudel, K., & Subedi, P. (2020). Impact of COVID-19 pandemic on socioeconomic and mental health aspects in Nepal. *International Journal of Social Psychiatry*, 66(8), 748–755. <https://doi.org/10.1177/0020764020942247>.
- Prothom Alo (2020). Mother forced to sell hair to buy milk for infant. Retrieved October 16, 2020, from: <https://en.prothomalo.com/bangladesh/local-news/mother-forced-to-sell-hair-to-buy-milk-for-infant>.
- Ransing, R., Ramalho, R., Orsolini, L., Adiuoku, F., Gonzalez-Diaz, J. M., Larnaout, A., Pinto da Costa, M., Grandinetti, P., Bytyçi, D. G., Shalhafan, M., Patil, I., Nofal, M., Pereira-Sanchez, V., & Kilic, O. (2020). Can COVID-19 related mental health issues be measured? *Brain, Behavior, and Immunity*, 88, 32–34. <https://doi.org/10.1016/j.bbi.2020.05.049>.
- Robiner, W. N. (2006). The mental health professions: Workforce supply and demand, issues, and challenges. *Clinical Psychology Review*, 26(5), 600–625. <https://doi.org/10.1016/j.cpr.2006.05.002>.
- Samartzis, L., & Talias, M. A. (2019). Assessing and improving the quality in mental health services. *International Journal of Environmental Research and Public Health*, 17(1), 249. <https://doi.org/10.3390/ijerph17010249>.
- Santini, Z. I., Jose, P. E., Cornwell, E. Y., Koyanagi, A., Nielsen, L., Hinrichsen, C., et al. (2020). Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among older Americans (NSHAP): A longitudinal mediation analysis. *The Lancet Public Health*, 5(1), e62–e70.
- Sharma, P., Joshi, D., & Shrestha, K. (2020). Mental health and COVID-19 in Nepal: A case of a satellite clinic. *Asian Journal of Psychiatry*, 53, 102175. Advance online publication. <https://doi.org/10.1016/j.ajp.2020.102175>.
- Sher, L. (2020). The impact of the COVID-19 pandemic on suicide rates. *QJM: An International Journal of Medicine*, hcaa202, <https://doi.org/10.1093/qjmed/hcaa202>.
- Spoorthy, M. S. (2020). Mental health problems faced by healthcare workers due to the COVID-19 pandemic – A review. *Asian Journal of Psychiatry*, 51, 102119. <https://doi.org/10.1016/j.ajp.2020.102119>.

- Taquet, M., Luciano, S., Geddes, J. R., & Harrison, P. J. (2020). Bidirectional associations between COVID-19 and psychiatric disorder: Retrospective cohort studies of 62354 COVID-19 cases in the USA. *The Lancet Psychiatry*. [https://doi.org/10.1016/S2215-0366\(20\)30462-4](https://doi.org/10.1016/S2215-0366(20)30462-4).
- Tasman, A. (2015). Too few psychiatrists for too many. *Psychiatric Times*, 32, 4. Retrieved October 16, 2020, from: <https://www.psychiatrictimes.com/cultural-psychiatry/too-few-psychiatrists-too-many>.
- Thara, R., & Padmavati, R. (2013). Community mental health care in South Asia. *World Psychiatry*, 12(2), 176–177. <https://doi.org/10.1002/wps.20042>.
- Wang, G., Zhang, Y., Zhao, J., Zhang, J., & Jiang, F. (2020). Mitigate the effects of home confinement on children during the COVID-19 outbreak. *The Lancet*, 395(10228), 945–947.
- World Health Organization (2017a). Mental health ATLAS. Retrieved May 5, 2020, from: <https://apps.who.int/iris/bitstream/handle/10665/272735/9789241514019-eng.pdf?ua=1>.
- World Health Organization (2017b). Mental Health Atlas-2017 country profiles. Retrieved July 10, 2020, from: https://www.who.int/mental_health/evidence/atlas/profiles-2017/en/
- Yeasmin, S., Banik, R., Hossain, S., Hossain, M. N., Mahumud, R., Salma, N., & Hossain, M. M. (2020). Impact of COVID-19 pandemic on the mental health of children in Bangladesh: A cross-sectional study. *Children and Youth Services Review*, 117, 105277. <https://doi.org/10.1016/j.childyouth.2020.105277>.
- Yezli, S., & Khan, A. (2020). COVID-19 social distancing in the Kingdom of Saudi Arabia: Bold measures in the face of political, economic, social and religious challenges. *Travel Medicine and Infectious Disease*, 101692. <https://doi.org/10.1016/j.tmaid.2020.101692>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.