



Letter to the Editor

Socioeconomical transformation and mental health impact by the COVID-19's ultimate VUCA era: Toward the New Normal, the New Japan, and the New World


This article is a response to the solicitation for COVID-19 - Mental health submissions by the Journal, referencing Asian J Psychiatry 2020; 50: Article # 102100 (Tandon, 2020).

The COVID-19 (SARS-CoV-2) pandemic is having such a profound impact that it will fundamentally change our society and health care system (Byass, 2020). At present, social distance and remote work are recommended to prevent the spread of COVID-19; however, such public health policies will consequently promote the rapid digitalization of social infrastructure. Indeed, remote communication technologies are gradually being deployed in all areas of healthcare. In particular, telepsychiatry through the use of teleconferencing and other technologies is in a unique position to bring tele-digitalization efforts in psychiatry to the forefront (Shore et al., 2020). Specifically, the early arrival of Society 5.0 (Fernandez-Luque and Imran, 2018), represented by virtual reality, augmented reality, artificial intelligence, and the ubiquity of the Internet of Things will accelerate the expansion of human cognition and physical functions, as well as the seamless construction and utilization of big data in conjunction with the digitalization of social infrastructure.

However, some people may be unable to adapt well to the rapid digitalization of social systems. Furthermore, the digitalization of the social environment is not only related to the mental health domain but also to the question of existential readiness in how people adapt to the New Normal (Miao and Cao, 2019). Specifically, a certain number of people may have mental health problems due to the "techno-stress" (La Torre et al., 2019) associated with the rapid changes in social systems in the process of digitization of the social infrastructure. Moreover, the stress of COVID-19-related issues in the first place can be traumatic for some people and cause chronic anxiety or sleep disturbances. These chronic stresses may also cause people to fall into alcohol abuse and drug dependence. On the other hand, as we are going to shift into the post-COVID-19 era, people may develop mixed feelings of relief and gratitude as survivors, or frustration, anger, and distrust over the COVID-19-related issues. There will also be people who can gain personal growth and spirituality as they overcome these kinds of stresses through their own mental resilience (Cosic et al., 2020; Horesh and Brown, 2020).

In the era of COVID-19, there is "volatility" in that it is unclear when the second and third waves of the pandemic will strike, and there is "uncertainty" in that its resurgence and spread cannot be predicted. In addition, the COVID-19 pandemic is "complex" because not all routes of infection can be traced, and since most of the infection takes the form of subclinical infections, the symptoms are "ambiguous" and its containment is not straightforward. Thus, the issues related to COVID-19 are indeed "VUCA" itself (Alkhaldi et al., 2017) that came to be used in the business industry in 2010s to describe situations such as "It is difficult to predict the future because of the rapidly changing social environment". Therefore, the global COVID-19 pandemic would force the

general public to learn the "VUCA" era mindset. The COVID-19 pandemic embodied the ultimate world of "VUCA", and the way of life in the age of VUCA is fundamental to the strategies for confronting the COVID-19 problems. Furthermore, as the real economy and individual mental health are closely related, the impact of the pandemic on the real economy cannot be ignored. Moreover, the COVID-19 pandemic is a medium- to long-term battle against an "invisible enemy". Thus, it will test people's ability to adapt to irreversible social change toward the New Normal.

Again, as the pandemic is a fight against an "invisible enemy," conventional manpower tactics are not only ineffective but may even be harmful. The only way for humanity's wisdom to confront this challenge is the digital transformation of public mental health and psychiatry through the use of IT. Countries and regions that can technologically and economically paradigm shift to a Society 5.0 world at the moment are very limited. However, countries around the world should urgently work to develop the infrastructure for the digitalization of mental health care toward the New World. Sooner or later, a prolonged pandemic will qualitatively change people's lifestyles. The deregulation and changes in the social system triggered by this social crisis would be a good opportunity to strategically build a post-COVID-19 digital mental health world. Specifically, industry, government, and academia must work together globally to build a platform (Barton et al., 2020) that can collect and store not only information on COVID-19 infection but also life and medical data seamlessly and ubiquitously. Such initiatives will contribute to the rational management of the mental health as well as realize an organic system that can analyze big data in real-time and feedback the results to individuals and society in a timely manner.

Financial disclosure

YN has received a Grant-in-Aid for Young Scientists (KAKENHI) from the Promotion of Science, research grants from Japan Agency for Medical Research and Development (AMED), investigator-initiated clinical study grants from TELJIN PHARMA LIMITED and Inter Reha Co., Ltd. YN also receives research grants from Japan Health Foundation, Meiji Yasuda Mental Health Foundation, Mitsui Life Social Welfare Foundation, Takeda Science Foundation, SENSHIN Medical Research Foundation, Health Science Center Foundation, Mochida Memorial Foundation for Medical and Pharmaceutical Research, Taiju Life Social Welfare Foundation, and Daiichi Sankyo Scholarship Donation Program. YN has received speaker's honoraria from Dainippon Sumitomo Pharma, MOCHIDA PHARMACEUTICAL CO., LTD., and Yoshitomiya Corporation within the past three years. YN also receives equipment-in-kind support for an investigator-initiated study from Magventure Inc, Inter Reha Co., Ltd., Rogue Resolutions Ltd., and Miyuki Giken Co., Ltd.

<https://doi.org/10.1016/j.ajp.2020.102262>

Received 1 June 2020

1876-2018/ © 2020 Elsevier B.V. All rights reserved.

Declaration of Competing Interest

YN declares no conflicts of interest for this article.

Acknowledgements

I respect all the health care professionals who are on the front lines of health care dealing with the COVID-19 infection and appreciate the wisdom of all human beings who are living with us through this ordeal.

References

- Alkhalidi, K.H., Austin, M.L., Cura, B.A., Dantzer, D., Holland, L., Maples, D.L., Quarrelles, J.C., Weinkle Jr., R.K., Marcus, L.J., 2017. Are you ready? Crisis leadership in a hyper-VUCA environment. *J. Emerg. Manage.* 15, 139–155.
- Barton, C.M., Alberti, M., Ames, D., Atkinson, J.A., Bales, J., Burke, E., Chen, M., Diallo, S.Y., Earn, D.J.D., Fath, B., Feng, Z., Gibbons, C., Hammond, R., Heffernan, J., Houser, H., Hovmand, P.S., Kopainsky, B., Mabry, P.L., Mair, C., Meier, P., Niles, R., Nosek, B., Osgood, N., Pierce, S., Polhill, J.G., Prosser, L., Robinson, E., Rosenzweig, C., Sankaran, S., Stange, K., Tucker, G., 2020. Call for transparency of COVID-19 models. *Science* 368, 482–483.
- Byass, P., 2020. Eco-epidemiological assessment of the COVID-19 epidemic in China, January-February 2020. *Glob. Health Action* 13, 1760490.
- Cosic, K., Popovic, S., Sarlija, M., Kesedzic, I., 2020. Impact of human disasters and COVID-19 pandemic on mental health: potential of digital psychiatry. *Psychiatr. Danub.* 32, 25–31.
- Fernandez-Luque, L., Imran, M., 2018. Humanitarian health computing using artificial intelligence and social media: a narrative literature review. *Int. J. Med. Inform.* 114, 136–142.
- Horesh, D., Brown, A.D., 2020. Traumatic stress in the age of COVID-19: a call to close critical gaps and adapt to new realities. *Psychol. Trauma* 12, 331–335.
- La Torre, G., Esposito, A., Sciarra, I., Chiappetta, M., 2019. Definition, symptoms and risk of techno-stress: a systematic review. *Int. Arch. Occup. Environ. Health* 92, 13–35.
- Miao, R., Cao, Y., 2019. High-performance work system, work well-being, and employee creativity: cross-level moderating role of transformational leadership. *Int. J. Environ. Res. Public Health* 16.
- Shore, J.H., Schneck, C.D., Mishkind, M.C., 2020. Telepsychiatry and the coronavirus disease 2019 pandemic-current and future outcomes of the rapid virtualization of psychiatric care. *JAMA Psychiatry*.
- Tandon, R., 2020. The COVID-19 pandemic, personal reflections on editorial responsibility. *Asian J. Psychiatr.* 50, 102100.

Yoshihiro Noda

*Multidisciplinary Translational Research Lab, Department of
Neuropsychiatry, Keio University School of Medicine, 35 Shinanomachi,
Shinjuku-ku, Tokyo, 160-8582, Japan
E-mail address: yoshi-tms@keio.jp.*