

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

## Mental health care and COVID-19

We would like to thank Hailemariam and Pathare for their letter in which, among other issues, they refer to our recently published Position Paper.<sup>1</sup>

In our Position Paper, we provide an international perspective, with authors and users and family associations from 14 countries, on how the pandemic offers an opportunity to improve mental health-care provision. Finding commonalities and sharing experiences that can translate to different setting helped us to propose a core set of measures to establish the benefits of such changes once implemented.

The views and solutions expressed in our paper do apply to mediumincome and high-income countries with advanced health systems where granular mental health monitoring might be possible. We are aware that these approaches might not be relevant to low-income countries with no psychiatrists or with no mental health services in place where, ipso facto, priorities are different, and public health or primary health are the focus. In many of those countries, a greater number of people are dying from causes other than this pandemic, which might be a more immediate focus for health services.

We share some concerns with Hailemariam and Pathare. The countries represented in our Position Paper produce more than 80% of all scientific papers in the world, <sup>2,3</sup> and low-income countries necessarily use drugs developed in high-income countries. We state in our paper that we are deeply concerned about the increasing economic gap and how that will affect mental health of those in low-income countries (and what mental health services could do to reduce the expected widening).

The COVID pandemic is global, but its effect on mental health and potential solutions will depend on the setting and on economic, social, and systems variables.<sup>4</sup> Knowing

how difficult it is to change policies in most countries, we adopted a pragmatic approach and focused on one particular side of the problem and our own expertise. But there are some suggestions in our Position Paper that would be useful for all countries, such as the use of digital technologies (which would also benefit rural areas) at the same time as respecting the digital divide. However, we believe mental health experts in low-income countries are the ones entitled to speak up and propose changes tailored to their reality.

CM reports personal fees from Janssen, Angelini, Servier, Nuvelution, Otsuka, and Lundbeck. CA reports personal fees from Acadia, Angelini, Gedeon Richter, Janssen Cilag, Lundbeck, Minerva, Otsuka, Roche, Sage, Servier, Shire, Schering Plough, Sumitomo Dainippon, Sunovion, and Takeda. TW declares no competing interests.

## \*Celso Arango, Til Wykes, Carmen Moreno carango@hggm.es

Department of Child and Adolescent Psychiatry, Institute of Psychiatry and Mental Health, Hospital General Universitario Gregorio Marañón, School of Medicine, Universidad Complutense, IiSGM, CIBERSAM, Madrid 28009, Spain (CA, CM); Institute of Psychiatry, Psychology and Neuroscience, Department of Psychology, King's College London, London, UK (TW); and South London and Maudsley NHS Foundation Trust, London, UK (TW)

- 1 Moreno C, Wykes T, Galderisi S, et al. How mental health care should change as a consequence of the COVID-19 pandemic. Lancet Psychiatry 2020; 7: 813–24.
- 2 National Science Foundation. Publication Output, by Region, Country, or Economy. Dec 17, 2019. https://ncses.nsf.gov/pubs/ nsb20206/publication-output-by-regioncountry-or-economy (accessed Oct 26, 2020).
- 3 Tollefson J. China declared largest source of research articles. Nature 2020; published online Jan 25.https://media.nature.com/original/ magazine-assets/d41586-018-00927-4/ d41586-018-00927-4.pdf (accessed 0+36-3030)
- 4 Vieta E, Perez V, Arango C. Psychiatry in the aftermath of COVID-19. Rev Psiquiatr Salud Ment 2020; 13: 105–10.

## Chronobiologically informed inpatient milieu in psychiatric institutions

We write in support of Stephanie Liddicoat and colleagues<sup>1</sup>

and concur with the ideas detailed in their thoughtful description of six architectural principles that can be applied to design psychiatric institutions in order to "enhance treatment outcomes and experiences, provide benefits to families and the community, and promote community resilience".1 However, we would like to propose that, rather than including the lighting design of the built environment in the architectural principle of facilitating empowerment, the accumulating evidence that lighting systems substantially affect subjective wellbeing and objectively assessed prognoses makes this issue worthy of separate consideration.<sup>2</sup> As such, we propose a seventh architectural principle: create a chronobiologically informed therapeutic milieu.

Liddicoat and colleagues<sup>1</sup> highlight that a more nature-like environment (including access to natural light) supports recovery. Indeed, Florence Nightingale described light and the rhythm of night and day as two important factors in restoring physical health. Furthermore, at least four largescale studies in somatic and psychiatric inpatients show clinically significant effects on morbidity, medication use, length of stay, and mortality rates of different levels of daylight and artificial light exposure.2 It is now understood that the inter-relationship between light, sleep-wake cycles, and health outcomes has an empirical biological basis and, in inpatients, can be linked to the spectrum of light and the timing of light exposure experienced by individuals.2 In psychiatry, it is increasingly recognised that light is the most important time-giver to the human circadian system, and that circadian disruptions are a transdiagnostic feature of many severe mental disorders.3 Although morning bright light therapy is often used in treating mood disorders,4 attention is now shifting to the importance of darkness in the evening and night. Specifically, blocking short-wavelength

See Comment page 1011

For Florence Nightingale's Notes on Nursing: What It Is, and What It Is Not see http://www.gutenberg.org/files/17366-h/17366-h.