

## Psychiatry in Lebanon

Lebanon has a population of approximately 6.8 million people. The country has also been accommodating around 250 000 refugees from Palestine since the 1950s and 1.5 million refugees from Syria since 2010. Despite the prevalence of psychiatric disorders at 17% and a treatment gap of 89.1%,<sup>1</sup> Lebanon's mental health services remain underfunded and are usually limited to urban centres.<sup>2</sup>

Mental health care in Lebanon faces many challenges, some of which include the absence of a mental health act, high stigma surrounding mental health, restricted government funding, a low general health budget, elevated costs of mental health care with inadequate insurance coverage, few inpatient psychiatric units, and a shortage of mental health professionals including psychiatrists, psychiatry nurses, and social care workers. These challenges have been aggravated by the COVID-19 pandemic, a major explosion in the port of Beirut on Aug 4, 2020,<sup>3</sup> and political unrest occurring in the country since October, 2019.

To improve mental health care in a timely manner, the Lebanese Government and international organisations should focus on allocating appropriate funding for mental health services, treatment, and training for health-care workers; scaling up community services, promoting mental health through awareness campaigns, and providing appropriate psychological first aid.

In 2020, the Ministry of Public Health in Lebanon, in association with WHO and UNICEF, started a comprehensive Mental Health and Psychosocial Support action plan<sup>4</sup> to address the mental health issues caused by the COVID-19 pandemic.

Additional problems caused by the Beirut explosion and political unrest highlight the compelling need for global organisations such as

WHO, UNICEF, United Nations High Commissioner for Refugees, and the World Psychiatric Association to support the Middle East Psychological Association and local mental health institutions. This additional support would speed up the process of finding culturally appropriate, immediate, and effective measures to improve mental health care in Lebanon. Scientists, medical practitioners, and legislators need to formulate policies within the framework of existing mental health services to reduce the treatment gap and improve mental health of the Lebanese population. An immediate and dedicated crisis response team could be a primary initiative to deal with the current disastrous situation.

We declare no competing interests.

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- 1 Karam EG, Mneimneh ZN, Karam AN, et al. Prevalence and treatment of mental disorders in Lebanon: a national epidemiological survey. *Lancet* 2006; **367**: 1000–06.
- 2 Khoury B, El-Khoury J, Ammar J. Psychological needs and response during the COVID-19 pandemic in Lebanon. *Psychol Trauma* 2020; **12**: 497–98.
- 3 World Vision. Lebanon: Beirut explosion facts and how to help. 2020. <https://www.worldvision.org/disaster-relief-news-stories/lebanon-beirut-explosion-facts-how-help> (accessed Aug 23, 2020).
- 4 The National Mental Health Programme. National action plan for the MHPSS response to COVID-19. 2020. <https://www.moph.gov.lb/en/Pages/0/29465/action-plan-mentalhealth-covid19> (accessed Aug 23, 2020).

## Characterising neuropsychiatric disorders in patients with COVID-19

We commend Aravinthan Varatharaj and colleagues<sup>1</sup> for their study on neurological and neuropsychiatric

complications of COVID-19, and we echo their comments on the importance of interdisciplinary work in the clinical neurosciences. However, we are concerned by their reliance on the vague term altered mental status and the use of the term encephalopathy without reference to delirium.

The absence of delirium in the Article's case definitions is troubling and imposes considerable constraints on the interpretation of this study, because delirium is likely to be the most frequent neuropsychiatric complication of COVID-19.<sup>2</sup> Consistent with the high prevalence of delirium in most serious, acute diseases, we expect delirium to be present in at least a quarter of older patients (aged  $\geq 65$  years) with COVID-19 and more than two-thirds of severe cases. However, most reports have used non-standard terminology to describe the mental status phenotypes in COVID-19 (eg, dysexecutive syndrome, confusion, altered consciousness, or altered mental status). Of note, confusion was the fifth most common presenting feature of COVID-19 overall in the International Severe Acute Respiratory and Emerging Infection Consortium WHO study (n=20133).<sup>2</sup>

In Varatharaj and colleagues' study,<sup>1</sup> altered mental status is defined as "an acute alteration in personality, behaviour, cognition, or consciousness". Additional, undefined terms include unspecified encephalopathy, new-onset psychosis, and neurocognitive (dementia-like) syndrome. Presuming acute onset, most of these cases probably would have fulfilled DSM-5 criteria for delirium. The authors do acknowledge a potential reporting bias, but we suggest that a broader approach to reporting of cases, for example by geriatricians and acute physicians, would have generated a more representative sample.

The issue of the damaging consequences of inconsistent terminology was the subject of a

**Panel: Value of identifying delirium****Validity**

- Risk factors identifiable
- High construct validity
- Its prevalence and severity predict serious outcomes (eg, hospital costs, morbidity, mortality)

**Reliability**

- Clear, operationalised criteria
- Facilitates systematic screening
- Clinical instruments widely available

**Utility**

- Prioritises prevention
- Common presenting feature of serious systemic illness
- Directs clinicians to guidelines and treatment pathways
- Draws attention to possible psychological distress
- Encourages vigilance for problematic behavioural features
- Facilitates communication with patients and carers
- Facilitates accurate coding
- Strong association with dementia and cognitive decline

Kohler, and personal fees from Pfizer/Orion and Masimo. AM holds US and European patents on computerised attentional tests relevant to delirium detection (Europe EP2485645B1; USA 9307940). All other authors declare no competing interests.

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- 1 Varatharaj A, Thomas N, Ellul MA, et al. Neurological and neuropsychiatric complications of COVID-19 in 153 patients: a UK-wide surveillance study. *Lancet Psychiatry* 2020; published online June 25. [https://doi.org/10.1016/S2215-0366\(20\)30287-X](https://doi.org/10.1016/S2215-0366(20)30287-X).
- 2 Docherty AB, Harrison EM, Green CA, et al. Features of 20 133 UK patients in hospital with COVID-19 using the ISARIC WHO Clinical Characterisation Protocol: prospective observational cohort study. *BMJ* 2020; **369**: m1985.
- 3 Slooter AJC, Otte WM, Devlin JW, et al. Updated nomenclature of delirium and acute encephalopathy: statement of ten societies. *Intensive Care Med* 2020; **46**: 1020–22.
- 4 Davis DHJ, Skelly DT, Murray C, et al. Worsening cognitive impairment and neurodegenerative pathology progressively increase risk for delirium. *Am J Geriatr Psychiatry* 2015; **23**: 403–15.
- 5 Oldham MA, Holloway RG. Delirium disorder: integrating delirium and acute encephalopathy. *Neurology* 2020; **95**: 173–78.

As a group of senior National Health Service critical care psychologists and consultants, we would like to respond to the Article by Aravinthan Varatharaj and colleagues<sup>1</sup> published in

position statement, published in February, 2020, on the preferred nomenclature of delirium and acute encephalopathy, endorsed by ten professional societies.<sup>3</sup> The position statement advocates that all disciplines adopt a shared approach to classification and nomenclature. There are sound reasons for identifying delirium in particular; unlike altered mental status and other imprecise terms, delirium is a valid, operationalised diagnostic construct with high reliability and strong utility (panel).<sup>3</sup> A diagnosis of delirium compels a standardised approach to management and, crucially, facilitates communication with patients and carers, which is essential for alleviating their distress. We urge consistency of nomenclature as presented in this recent statement.

The current unresolved tension between delirium and acute encephalopathy is more than word-deep and calls for a unified approach to the clinical syndrome and its underlying neuropathophysiology. According to the recent position statement, delirium describes a discrete clinical syndrome and acute encephalopathy describes the

neuropathophysiology.<sup>3</sup> Of note, animal models substantiate this approach. For example, peripheral inflammation in such models has been shown to provoke both a delirium-like syndrome and new neurophysiological changes in the brain.<sup>4</sup> The term delirium disorder aims to integrate the two previous terms and the models they represent.<sup>5</sup> We propose that it is inadequate to use the term delirium without specifying the underlying cause or putative neuropathophysiology, or to use the term acute encephalopathy without consistently characterising the mental status phenotype.

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