New study reveals Australian long COVID response lagging

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A COVID mask sits in RMIT's health simulation labs. Credit: RMIT University, Peter Clarke

New research by RMIT University and Northern Health has examined Australia's long COVID services, guidelines and public health

information, compared with international standards.

The researchers found Australia lacking in several categories, including early investigation, accessibility and availability of trustworthy public health information, and adequate multidisciplinary long COVID services to meet demand.

["An Overview of Long COVID Support Services in Australia and International Clinical Guidelines, With a Proposed Care Model in a Global Context"](#) was published in *Public Health Reviews*.

Dean of RMIT's School of Health and Biomedical Sciences and co-author on the paper, Professor Catherine Itsiopoulos, warned that this problem will only worsen over time.

"Long COVID is here to stay. As COVID-19 cases continue to accumulate, the cases of long COVID will also increase," said Itsiopoulos.

"With unclear diagnosis and unknown effective treatment, this new chronic disease will be highly costly to the individual and on public health systems worldwide."

The true cost of long COVID

The COVID-19 pandemic has resulted in an estimated 642 million cases since the outbreak, with more than 11 million confirmed cases in Australia.

In some cases, COVID-19 can develop into long COVID. The Australian definition is when a person experiences symptoms for longer than 12 weeks after contracting COVID-19, while the US guidelines suggest four weeks.

"While most people recover fully, up to 40% of people experience lingering symptoms. Recent new data show that 14% of Victorians who had COVID-19 suffer from long-COVID," said Itsiopoulos.

"These symptoms can include fatigue, shortness of breath, persistent cough, joint pain, brain fog, cognitive dysfunction, anxiety, depression, loss of smell or taste and insomnia.

"Our study found that long COVID patients have fallen through the cracks due to poor diagnosis, complex multiple chronic disease needs and poor access to health care."

Confusion and undereducation—even among health professionals

The study compared long COVID guidelines and services in Australia, and found significant gaps between what is recommended and what patients experience.

Co-lead author Associate Professor Zhen Zheng highlighted that while early investigation at week four after contracting COVID-19 is recommended by the Australian, UK and US guidelines, this is not consistently implemented in Australia.

"Because there's so much confusion around the definition of long COVID and so little that we know about it, even health care professions—including GPs at the frontlines of health care—don't know how to spot the early signs or how best to help people experiencing it," said Zheng.

The researchers also found trustworthy public health information on long COVID—such as websites and webpages—are either not readily

available or not advertised.

Where they exist, they are primarily written in English, disadvantaging people with low health literacy skills or from non-English speaking backgrounds.

Recommendations to improve Australia's response

The researchers propose a long COVID response built on US, UK and Australian guidelines which prioritizes early investigation, also drawing on insights from the Australian National Strategic Framework for Chronic Conditions.

1) Early detection

Firstly, the researchers recommend that people with COVID-19 be monitored for long COVID from four weeks after infection.

People with pre-existing conditions—like chronic fatigue, [mental illness](link), arthritis or diabetes—should be warned they're at higher risk of developing long COVID and monitored for early for signs of the condition.

Zheng warned that detecting long COVID is difficult, as 90% of cases develop from mild COVID-19.

"If patients are managing their COVID-19 at home, and not under the care of a GP, then it is difficult to detect early signs of long COVID and implement prevention strategies," said Zheng.

"This is why it is vital to educate the general public on long COVID."

Zheng said public health campaigns around vaccinations, hand hygiene, social distancing and mask wearing showed large-scale behavior-change was possible.

Left to right: Associate Professor Zhen Zheng, Professor Catherine Itsiopoulos and Dr Shiqi (Rose) Luo in RMIT's health simulation labs. Credit: RMIT University, Peter Clarke

"Building on this success, we need to teach people how to best to look after themselves when they have COVID-19, facilitating recovery and monitoring for long COVID symptoms through early consultation with their GP."

2) Address mental health issues in the acute phase

One in three people experience depression or sleep problems, and up to one in two face anxiety, in the acute phase of COVID-19 and up to three months after infection.

The researchers warned that Australia needs better strategies to minimize the impact of mental health early—before the development of long COVID.

3) Investigate symptoms at four to eight weeks

From four to eight weeks, GPs should investigate ongoing symptoms and encourage patients to make lifestyle changes aimed at reducing persistent inflammation, which is linked to long COVID symptoms. Individuals may also begin seeing allied health professionals for help with symptoms like shortness of breath and fatigue.

4) Referral to a long COVID clinic

If symptoms persist for more than eight weeks, people should be referred to a long COVID clinic—and continue the above recommendations.

Long COVID clinics are already going under

Co-lead author, Dr. Shiqi Luo, is among the researchers who identified 16 long COVID services in Australia at the time of the research.

Since then, seven services have been created and three have been terminated. Victoria hosts nine of these services, all dedicated to providing multidisciplinary rehabilitation for long COVID.

"Because long COVID affects so many parts of the body in different ways, the best rehabilitation is multidisciplinary—which makes these clinics costly to operate and they can only accommodate a small number of long COVID sufferers," said Luo.

"In fact, three of the services in Victoria we looked at have already been terminated due to a lack of funding. We have insufficient long COVID clinics to meet the demand."

The study revealed there were no services specifically catering to children or elderly people, who may need different types of support—and two Victorian services even excluded aged care residents. There were no services in Australia available specifically to people with mental or physical disabilities.

Barriers to fighting long COVID

Long COVID is a complex condition, with more than 50 symptoms affecting 10 different body systems, for a varied and unknown duration. It emerges as health care systems worldwide struggle to cope with the impacts of COVID-19's continued presence.

Co-author on the study, Distinguished Professor Magdalena Plebanski, explained that while effective treatments are lacking, the right mix of supports and services have been shown to help.

"Specialists such as cardiologists, neurologists or immunologists can support recovery from specific circulatory, mental health or autoimmune complications," said Plebanski.

"However, given the multiple organs affected in one person with long COVID interact with each other, holistic integrative approaches are critical to patient recovery."

Professor Don Campbell, Northern Health's Clinical Service Director of the Staying Well Program and Medical Division Director of the Hospital Without Walls Program, said the study is timely and very helpful.

"Victoria held the first Long COVID conference on 1 September, convened by the Department of Health, which identified long COVID rates of 14 percent in a survey of over 11,000 respondents," said Campbell.

"It's now time for a coordinated response. Vulnerable marginalized community members are at particular risk. Research must focus on prevention and management of long COVID."

However, there are critical barriers that must be overcome—including health workforce training, improved public health education and funding for the implementation of multidisciplinary long COVID services.

More information: Shiqi Luo et al, An Overview of Long COVID Support Services in Australia and International Clinical Guidelines, With a Proposed Care Model in a Global Context, *Public Health Reviews* (2023). DOI: 10.3389/phrs.2023.1606084

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