

Supplementary Material

Feasibility of an allied health led, workplace delivered Long COVID service for hospital staff: a mixed-methods study

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Supplementary material Table S1: Template for Intervention Description and Replication - ReCOV (TIDieR- Telehealth)¹

Item	Details
1 Brief Name	ReCOV
2 Why	In response to a growing number of COVID-19 cases in the community, the Royal Melbourne Hospital established an allied health led clinic (ReCOV) to provide a multidisciplinary, symptom management approach to care for Long COVID.
3 What: Materials	<p>The service was established largely utilising existing technology interfaces and staffing. Initial assessment and triage were completed via a tailored and piloted electronic survey and participants were asked to completed this independently or via telephone to determine symptoms and clinical needs. Appointments were delivered via telehealth (via Health Direct video call technology) or face to face.</p> <p>Where indicated, handouts, PowerPoint slides for group education, written exercise programs and links to further information were provided. Interpreters were also utilised as required.</p>
4 What: Procedures	<p>Interventions were tailored based on clinical indication as determined by self-reported symptoms and questionnaire responses. Each allied health profession provided specialist care to address individual needs of the participants for up to 12 weeks per profession. Examples of main interventions provided are described below:</p> <p>Allied health assistant/admin: Administration tasks, assisting with completing electronic surveys and triage and booking appointments</p> <p>Clinical psychology: Tailored and goal-based individualised psychology sessions incorporating cognitive behavioural therapy and acceptance and commitment therapy.</p> <p>Dietitian: Nutrition counselling and or rehabilitation to support symptom management including inflammatory processes, malnutrition, sarcopenia, or weight management.</p> <p>Exercise physiology: Education regarding pacing, fatigue management, return to exercise programs (including addressing balance and strength deficits).</p> <p>Music therapy: Voice and breathing exercises to reduce vocal fatigue and support voice production, live music and relaxation to reduce stress, education on selecting therapeutic playlists.</p> <p>Neuropsychology: Cognitive rehabilitation using a range of cognitive behavioural therapy based interventions (including acceptance and commitment therapy and sensory modulation).</p> <p>Occupational Therapy: Timetabling, return to work activity program, recommendation, 1:1 and or group education regarding fatigue, sleep management, lifestyle choices and changes, meaningful activity, pacing and prioritising.</p> <p>Physiotherapy: Vestibular assessment and rehabilitation, balance assessments, falls education, strength and balance training.</p> <p>Rehabilitation physician: Provide guidance on return to work or study, education regarding pharmacotherapy for symptom management, prescribed cardiovascular parameters for exercise prescription, referral to and liaison with other medical providers and specialties.</p> <p>Social work: Support regarding housing security, material aid, grief and loss counselling, emotional support, carer support, transition support, advocacy and referrals for ongoing management.</p>

5 Who	<p>The ReCOV multidisciplinary team comprised of occupation therapy, physiotherapy, exercise physiology, a rehabilitation physician, clinical psychology, neuropsychology, social work, dietetics, music therapy and an allied health assistant. All ReCOV team members were provided with a telehealth login and registered with the Health Direct video call technology.</p> <p>Allied health assistant/admin: Junior clinician; experienced in patient communications and administration tasks.</p> <p>Clinical psychology: Senior clinician; expertise in anxiety and low mood management.</p> <p>Dietitian: Junior dietitian; appetite and weight management experience.</p> <p>Exercise physiology: Senior exercise physiologist; specialist expertise in graded return to exercise programs and chronic fatigue management.</p> <p>Music therapy: Two senior music therapists; expertise in breathing techniques for anxiety and breath capacity.</p> <p>Neuropsychology: Senior clinician; expertise in working memory and executive dysfunction.</p> <p>Occupational therapy: Two senior occupational therapists; trained in fatigue management and pacing.</p> <p>Physiotherapy: Senior physiotherapist; vestibular rehabilitation and falls management experience.</p> <p>Rehabilitation physician: Senior clinician; experienced in coordination of care and management of complex medical presentations.</p> <p>Social work: Senior social worker; counselling and trauma management experience.</p>
6 How	<p>ReCOV was primarily delivered via individual telehealth appointments (videoconferencing) and face-to-face appointments offered as required (for example, vestibular assessment, supervised exercise programs). Group education and peer support were also provided (via telehealth) in addition to individual sessions where common areas for education were identified.</p>
7 Where	<p>The multidisciplinary team provided telehealth interventions from their home or at the tertiary hospital in an outpatient setting. Participants were living independently in the community. Participants needing to have in person sessions reported to the tertiary hospital Allied Health Outpatient Clinics.</p>
8 When/ How	<p>Sessions were provided over a 12-week period per profession, with initial appointments scheduled for 1 h and reviews from 30 min to 1 h depending on the profession. The number of appointments was not standardised and was based on clinical need.</p>
9 Tailoring	<p>Participants received individualised care based on assessment findings. Sessions were tailored to meet the needs and progress of individuals, primarily through telehealth, with in person sessions given on an as needs basis.</p>
10 Modification	<p>Allied health professionals identified they had been frequently providing similar education on certain topics. Consequently, in March 2023, group education sessions were introduced and participants were encouraged to attend two telehealth groups per week, over a 3-week period for education and self-management strategies related to fatigue, cognition, sleep, return to activity, relaxation and mindfulness and breathlessness. Participants then had the opportunity to seek up to three additional individual sessions to address specific needs.</p>
12 How well: Actual	<p>Referrals, wait times and attendance were recorded via the hospitals electronic medical record system. Formal clinical supervision was provided to all allied health professionals as per standard hospital protocol. Multidisciplinary team meetings (to discuss specific patient care) and team meetings (to discuss operations) were held monthly.</p>

Supplementary material Table S2: Coding tree examples

Quote	Code	Theme	Feasibility Domain ²
It was nice to talk to someone and actually feel heard, and they did reassure me that a lot of the symptoms and the emotions and the things I was feeling were being experienced by other people. (Participant 5)	Felt supported by ReCOV staff Reassurance provided	The multidisciplinary ReCOV service provided reassurance, support and important self-management strategies	Acceptability, Limited efficacy
It was really good how each of them knew beyond their own area to fill in gaps. (Participant 10)	Staff were knowledgeable	The multidisciplinary ReCOV service provided reassurance, support and important self-management strategies	Acceptability
The fact that I had so many different allied health services available to me if I wanted it, was, you know, I felt that was a great thing. (Participant 5)	Multidisciplinary support was helpful	The multidisciplinary ReCOV service provided reassurance, support and important self-management strategies	Acceptability Practicality
I like that problem-solving approach a lot, and that was, the resources were very useful. (Participant 12)	Self-management strategies were useful	The multidisciplinary ReCOV service provided reassurance, support and important self-management strategies	Acceptability
Just that the, the 3 months, I think the difficulty with showing the value of this service is people aren't gonna recover in 3 months generally, you know, especially if they've already been sick for quite some time. (Participant 4)	Not long enough	ReCOV in the workplace was convenient but not long enough for some participants	Acceptability Limited efficacy testing
It definitely was the best thing it being telehealth and, in the hospital, and I think overall it was probably one of the best things I think [The Royal Melbourne Hospital] could have done to tackle [COVID-19]. (Participant 2)	Telehealth facilitated attendance	ReCOV in the workplace was convenient but not long enough for some participants	Acceptability Implementation Practicality
I honestly think it was one of the best things I had done towards that, and I think, you know, for [The Royal Melbourne Hospital] to open it up exclusively to its employees was psychologically to me, like such a great thing to show how supportive they were, which then made me, you know, want to stay there as an employee...This really kept me retained in the service. (Participant 2)	Service in workplace facilitated attendance	ReCOV in the workplace was convenient but not long enough for some participants	Acceptability Practicality

Supplementary material file S1: Outcome measures

The patient reported outcome measures (limited efficacy) were collected on admission and discharge to ReCOV and included: the World Health Organization Disability Assessment Schedule (2nd version, WHODAS),^{3,4} the EuroQol Five Dimensions Five Levels (EQ-5D-5L), the Patient Health Questionnaire 4 and elements of the Brief Illness Perception Questionnaire.^{5,6} Patients were also asked about changes in sleep, work duties and breathing capacity post their COVID-19 diagnosis.

The EuroQol Five Dimensions Five Levels (EQ-5D-5L)

The EQ-5D-5L is a 5-question validated measure of health-related quality of life, assessing mobility, self-care, usual activities, pain or discomfort and anxiety and depression using a 5-point Likert scale where participants described their symptoms as 'no problems', 'slight problems', 'moderate problems', 'server problems' or 'extreme problems'/'unable to compete'.⁵ The EQ-5D-5L also asks patients to rate their overall level of health on a scale of zero to 100 (Visual Analogue Scale), where higher scores indicated a better health state.^{5,6}

The World Health Organization Disability Assessment Schedule (2nd version, WHODAS)

The WHODAS 2.0 is a measure of disability that is meaningful and feasible in multidisciplinary rehabilitation settings⁴. The WHODAS 2.0 comprises 36 items divided in to six domains: cognition, mobility, self-care, getting along with people, life activities and participation.^{3,4} Participants were asked to describe their symptoms from 'none', 'mild', 'moderate', 'severe' and 'extreme' and these were converted into a summary score ranging from zero to 100, where zero is no disability and 100 is full disability.

The 4-item Patient Health Questionnaire

The 4-item Patient Health Questionnaire (PHQ-4) is a valid, ultra-brief questionnaire used to detect anxiety and/or depression.^{7,8} It contains two questions pertaining to anxiety and two to depression with a 4-point Likert scale, whereby higher scores are strongly associated with increased functional impairment and healthcare use related to anxiety and depression.^{7,8}

The Brief Illness Perception Questionnaire

Three items from the Brief Illness Perception Questionnaire (BIPQ) were incorporated into the admission and discharge questionnaires, to measure a change in patients' symptoms, control and understanding of their condition on admission and discharge.⁹ The BIPQ measures patients' cognitive and emotional representations of their illness using a 10-point Likert scale and has good test-retest reliability and validity.⁹

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