

Long COVID and Episodic Disability: Considerations for Rehabilitation

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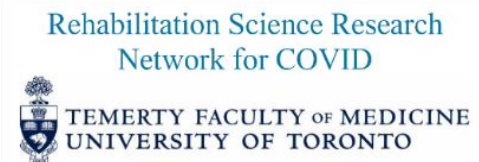
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CAOT Professional Development
Practice Evidence Webinar
March 7, 2023



Acknowledgements & Affiliations



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Outline / Objectives of the Webinar

- 1) Overview of Long COVID – definition, terminology, prevalence.
- 2) Episodic disability experienced by adults living with Long COVID.
- 3) Lived experiences of living with Long COVID.
- 4) Role of rehabilitation; occupational therapy.
 Considerations for safe assessment and intervention strategies when working with adults living with Long COVID.
- 5) Provide an overview of Long COVID Physio and Practical resources and tools to assist occupational therapists when working with persons living with Long COVID.

Overview

- Persons living with Long COVID can experience episodic disability that may sometimes be unpredictable in nature.
- Occupational therapists have an important role working with persons living with Long COVID - critical to understanding the episodic, multidimensional and sometimes unpredictable and invisible nature of disability and well-positioned to inform evidence-informed and safe approaches to maximize function and well-being.
- Long COVID Physio is an international peer support, education and advocacy, patient-led association of physiotherapists living with Long COVID and allies.
 - Works internationally across advocacy, policy, guideline development and research.
 - Activities include peer support, education, knowledge translation, research, and guideline development, and implementation of guidelines.

What is Long COVID?

“Post COVID-19 condition occurs in individuals with a history of probable or confirmed SARSCoV-2 infection, usually 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis...

- Common symptoms include fatigue, shortness of breath, cognitive dysfunction but also others and generally have an impact on everyday functioning. = **Multidimensional**.
- Symptoms may be new onset following initial recovery from an acute COVID-19 episode or persist from the initial illness. = **Concurrent comorbidity**.
- Symptoms may also fluctuate or relapse over time.” = **Episodic nature**.

(World Health Organization, October 2021)

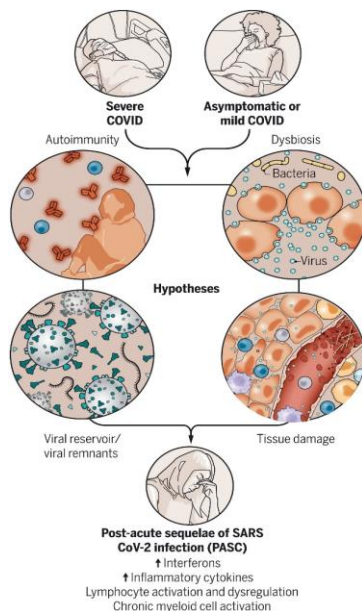
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Pathophysiology and Mechanism of Long COVID?



- Long-term organ and tissue damage due to acute infection
- Viral persistence in tissues driving chronic inflammation
- Immune dysregulation
- Triggering of autoimmunity after acute viral infection
- Endothelial cell dysfunction

Clinical Manifestations

- Systemic
- Respiratory
- Neurological
- Musculoskeletal
- Cardiac
- Vascular
- GI
- Endocrine
- Dermatological
- Cognitive

(Castanares-Zapatero et al., 2022; Mehandru et al., 2022; Merad et al., 2022)

Symptoms Pathology

- Heart**
 - Chest pain
 - Palpitations
 - Cardiac impairment
 - Myocardial inflammation
 - POTS
- Lungs**
 - Cough
 - Dyspnoea
 - Abnormal gas exchange
- Immune system**
 - Autoimmunity
 - MCAS
- Pancreas**
 - Diabetes
 - Pancreas injury
- Gastrointestinal tract**
 - Abdominal pain
 - Nausea
 - Gut dysbiosis
 - Viral persistence and viral reservoir
- Neurological system**
 - Cognitive impairment
 - Fatigue
 - Disordered sleep
 - Memory loss
 - Tinnitus
 - Dysautonomia
 - ME/CFS
 - Neuroinflammation
 - Reduced cerebral blood flow
 - Small fibre neuropathy
- Kidneys, spleen and liver**
 - Organ injury
- Blood vessels**
 - Fatigue
 - Coagulopathy
 - Deep vein thrombosis
 - Endothelial dysfunction
 - Microangiopathy
 - Microclots
 - Pulmonary embolism
 - Stroke
- Reproductive system**
 - Erectile dysfunction
 - Increased severity and number of premenstrual symptoms
 - Irregular menstruation
 - Reduced sperm count

Multi-Systemic and Multi-Dimensional

nature reviews microbiology <https://doi.org/10.1038/s41579-022-00846-2>

Review article Check for updates

Long COVID: major findings, mechanisms and recommendations

Hannah E. Davis¹, Lisa McCorkell², Julia Moore Vogel³ & Eric J. Topol⁴✉

(Davis et al., 2023)

Multi-Systemic; Multi-Dimensional Disability; Potentially Episodic

Long-term effects of COVID-19

80% at least one Symptom

58% Fatigue

44% Headache

27% Attention Disorder

21% Anosmia

16% Memory loss

13% Anxiety

11% Depression

11% Sleep disorder

8% Sleep apnea

7% Health Care related Mental Health

6% Psychiatric illness

3% Chronic Pain

3% Stroke

2% OCD

1% PTSD

0.3% Paranoia

Systematic review and meta-analysis

80% of people with COVID-19 have at least one symptom beyond 2 weeks

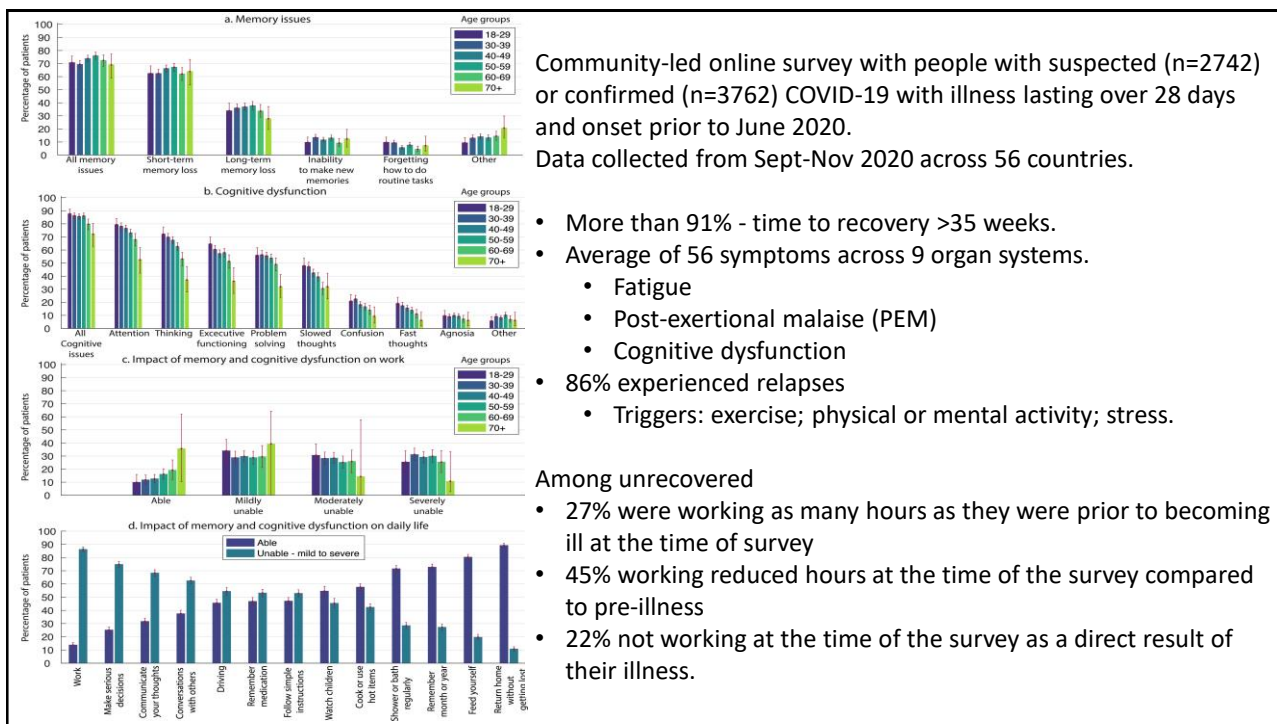
5 most common symptoms were

- Fatigue
- Headache
- Attention disorder
- Hair loss
- Dyspnea

Multi-system

Develops regardless of initial disease severity

(Lopez-Leon et al., 2021)



Prevalence of Long COVID in Canada

- Canadian COVID Antibody and Health Survey (CCAHS)
- Random sample of Canadians between April 1-Aug 31, 2022.
- Asked about new or continuing symptoms 3 months or more after confirmed or suspected case of COVID-19.

14.8% of adults with confirmed or suspected COVID infection experienced longer term COVID symptoms. Of those....

- **47.3%** - experienced symptoms for a year or more
- **21.3%** - indicated their symptoms often or always limited their daily activities.
- **74%** - among those employed missed some work or school due to symptoms.

Most common symptoms:

Fatigue, tiredness, or loss of energy (72% of those with self-reported long COVID)

Coughing (39%)

Shortness of breath or difficulty breathing (38%)

Difficulty thinking or problem solving (33%)

General weakness (31%).

With increasing disability there is a role for rehabilitation

(Health Canada, 2022)

Post-COVID-19 Condition in Canada Chief Science Advisor's Upcoming Report

A THREE-POINT FRAMEWORK FOR THE MANAGEMENT OF POST-COVID-19 CONDITION IN CANADA

In developing this framework, the Chief Science Advisor's Task Force on Post-COVID-19 Condition considered the evidence available up to October 2022 as well as the information gathered from seven roundtable discussions with experts and individuals living with post-COVID-19 condition (PCC). The three-point framework proposes 18 actions that, taken together, will help manage the health and socio-economic impacts of PCC in Canada and enhance pandemic preparedness and recovery.

<https://science.gc.ca/site/science/en/office-chief-science-advisor/initiatives-covid-19/post-covid-19-condition-canada-what-we-know-what-we-dont-know-and-framework-action-pre-report>

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GOALS AND OUTCOMES

- 1 Individuals with PCC, their families and dependents have timely access to the health services and support they need.
- 2 Research on PCC mechanistic pathways, risk factors and effective treatments is accelerated and translated into better care for PCC and other infection-associated chronic conditions.
- 3 Accurate data on PCC in Canada is collected and shared as part of a learning health system to inform clinical approaches, communication, and policy and program development.
- 4 Socio-economic policies and programs address the realities of living with PCC and provide necessary support and services.
- 5 Health care providers, individuals living with PCC and the general public have access to accurate information about PCC, thereby reducing stigma and promoting access to quality care.
- 6 Broader systemic and infrastructure changes that can benefit individuals living with PCC and other chronic post-infection conditions are identified and actioned. This will contribute to pandemic preparedness.

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Lessons Learned from HIV Rehabilitation to Long COVID

Episodic Disability – Informing COVID-19 Rehabilitation

Six Lessons for COVID-19 Rehabilitation From HIV Rehabilitation <https://pubmed.ncbi.nlm.nih.gov/32737967/>

Darren A. Brown, Kelly K. O'Brien, Jo Josh, Stephanie A. Nixon, Jill Hanass-Hancock, MaryLou Galantino, Hellen Myezwa, Soula Fillipas, Colm Bergin, Larry Baxter, Mark Binette, Verusia Chetty, Saul Cobbing, Colin Corbett, Francisco Ibanez-Carrasco, David Kietrys, Ronel Roos, Patricia Solomon, Richard Harding

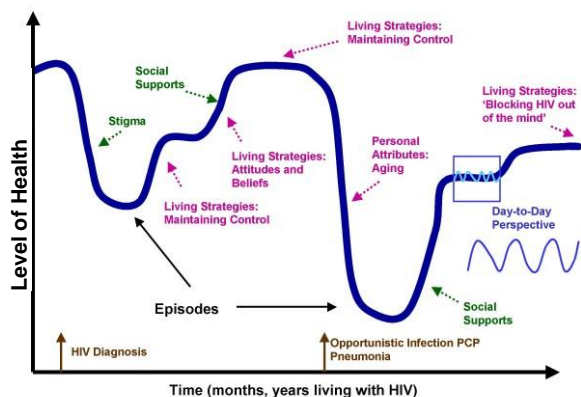
- Anticipate disability and recognize its potentially **episodic nature**
- Understand that disability dimension '**uncertainty** or worrying about the future' may play a role.
- Consider stigma, health inequities, social consequences.
- Build on existing research networks.
- Develop disability and rehabilitation-focused responses.
- Including and focus on people living with and affected by the pandemic.

What is episodic disability?

Any physical, cognitive, mental or emotional health challenge, difficulty carrying out day to day activities, challenges to social inclusion or uncertainty or worrying about the future that may be experienced by an individual that **may fluctuate** over a daily basis, within the day, or over the longer term.

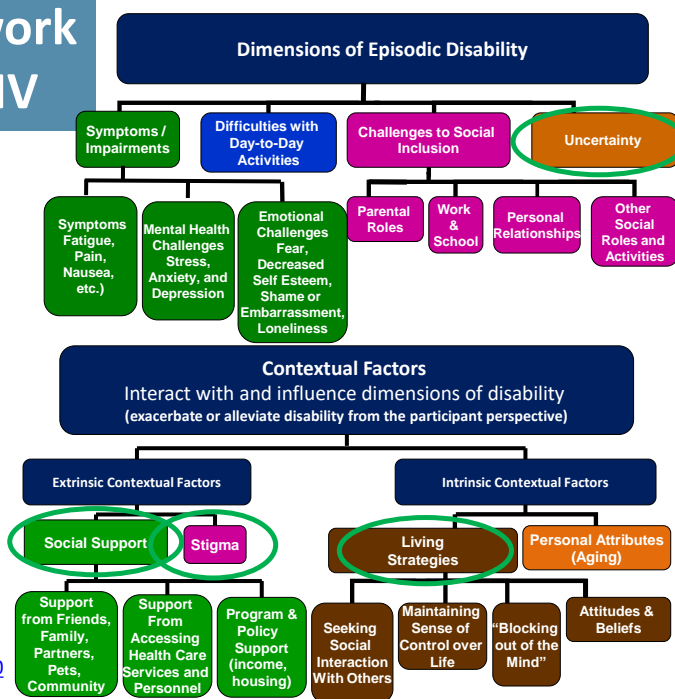
(O'Brien et al., 2008 ; O'Brien et al., 2009)

Episodic Disability Framework Derived from Context of HIV



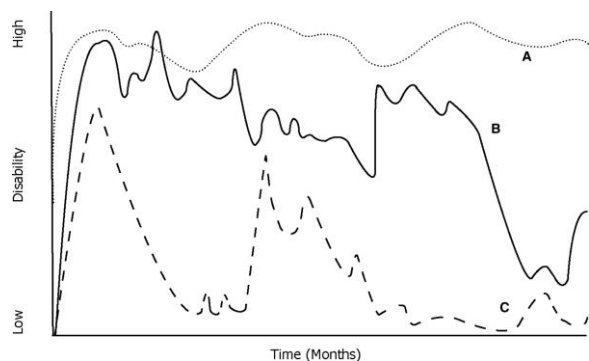
<http://www.hqlo.com/content/6/1/76>

<https://onlinelibrary.wiley.com/doi/full/10.1186/1758-2652-12-30>



Conceptualizing Long COVID as an Episodic Health Condition

Examples of potential trajectories of episodic disability in people living with Long COVID.



Fluctuating
Relapsing and remitting
Dynamic
Potential unpredictability

Episodic ≠ Total health or total illness
Not all or nothing
Not all good or all bad
Not on or off

(Brown et al., 2021)

Long COVID and Episodic Disability Study

Original research

BMJ Global Health **Conceptualising the episodic nature of disability among adults living with Long COVID: a qualitative study**

Kelly K O'Brien ^{1,2,3,4} Darren A Brown ^{5,6} Kiera McDuff, ¹ Natalie St. Clair-Sullivan ^{7,8} Patricia Solomon ⁹ Soo Chan Carusone ¹⁰, Lisa McCorkell ⁷ Hannah Wei ¹² Susie Goulding, ¹³ Margaret O'Hara ¹⁴, Catherine Thomson, ⁶ Niamh Roche, ¹⁵ Ruth Stokes, ¹⁵ Jaime H Vera ^{7,8}, Kristine M Erlandson ¹⁶ Colm Bergin ^{17,18} Larry Robinson ^{19,20}, Angela M Cheung ^{2,20,21} Brittany Torres, ¹ Lisa Avery ^{22,23}, Ciaran Bannan ^{17,18} Richard Harding ²⁴

<https://gh.bmj.com/content/8/3/e011276.full>

(O'Brien et al., 2023)

Canadian Institutes of Health Research / Instituts de recherche en santé du Canada

Funding: Canadian Institutes of Health Research: Emerging COVID-19 Research Gaps and Priorities Funding Opportunity (FRN: GA4-177753)

Characterizing the Episodic Nature of Long COVID – Phase 1

Descriptors of Episodic Nature of Disability Living with Long COVID

Methods

Semi-structured interviews
40 adults living with Long COVID

- Canada
- United Kingdom
- United States
- Ireland

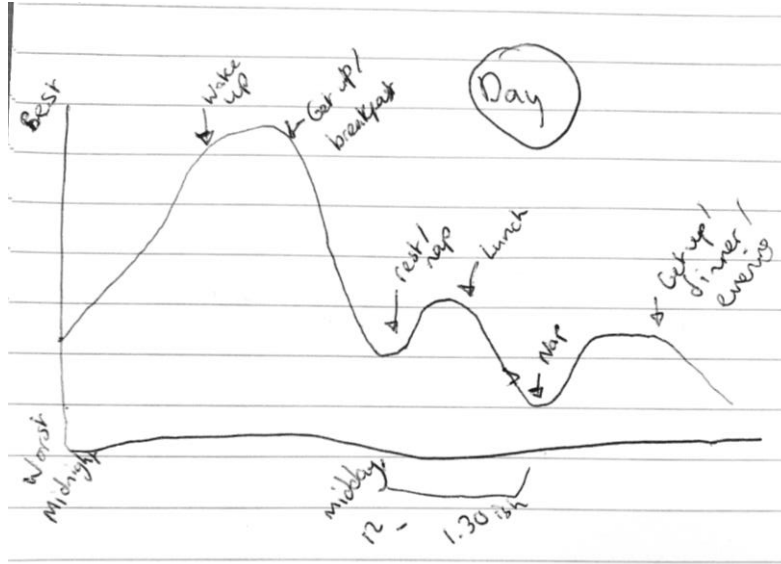
Participants

Median age: 39 years
63% female
50% unable to work
83% living with Long COVID ≥1 yr
93% experienced relapse in symptoms

(O'Brien et al., 2022)

Timeframe of Episodes – Daily or Within the Day

Episodic Disability – within a day

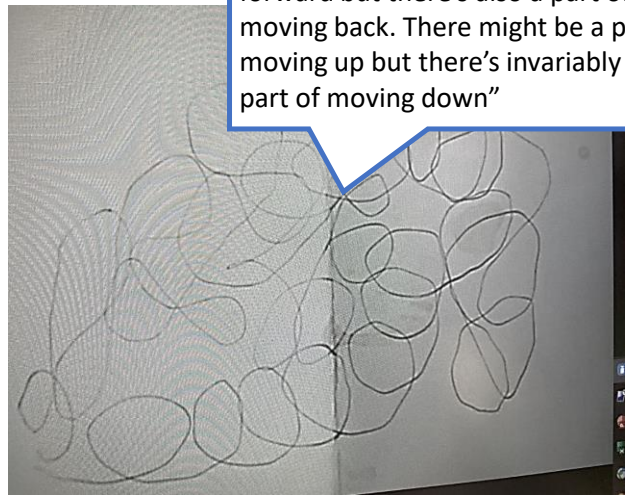
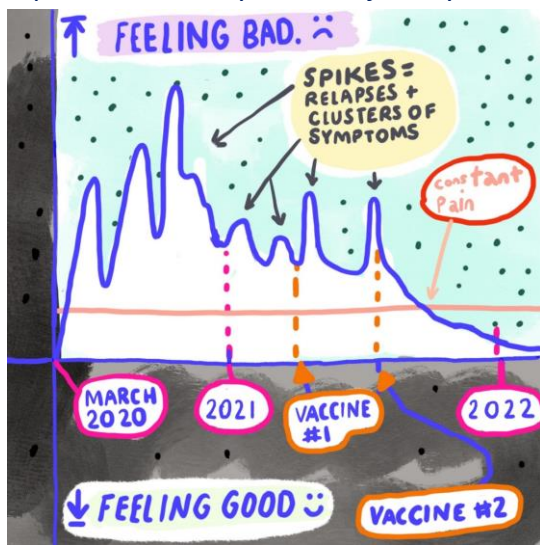


Timeframe of Episodic Disability

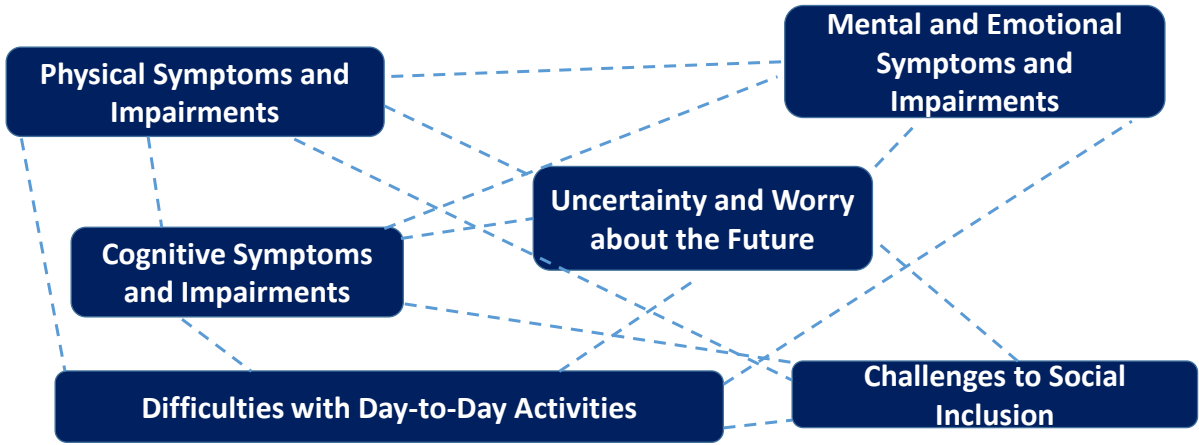
Episodic Disability – the trajectory of illness longer term

Unpredictability

“There might be a part of moving forward but there’s also a part of moving back. There might be a part of moving up but there’s invariably a part of moving down”



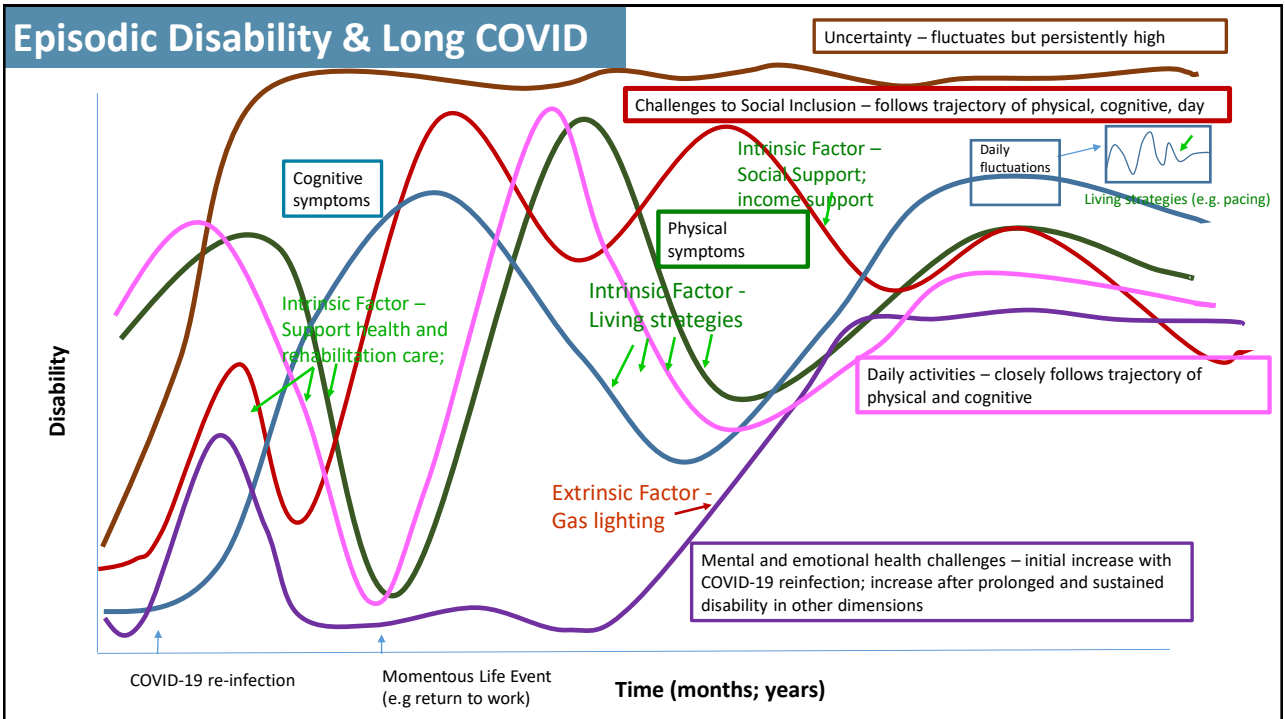
Dimensions of Disability – Web of Inter-Connections



Multi-dimensional

Dimensions are inter-related – direction most likely bi-directional; dependent on the individual

Episodic Disability & Long COVID



Helen Skiffington – My Lived Experience

Acute COVID-19

- 22nd March 2020 – 2 weeks after starting my “dream job”.
- Symptoms: fever, sore throat, fatigue, loss sense of taste/smell, light-headedness & aches/pains.
- No testing available.
- Caring for family.
- Work stress.

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Return to Work (little did I know...the first of many!)

- “I feel fine if I don’t move”
- Should I stay or should I go?
- Redeployed – new team, new processes & extra hours
- Returned to work far too soon!

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Weird and Wonderful Long COVID Symptoms

- Unfortunately, the symptoms did not go away once I returned to work and continued to get worse.
- Symptoms – light-headedness, palpitations, shortness of breath, jelly legs, headache, chest pain, fatigue, cognitive difficulties & feeling faint.
- If I tried to talk to people about it, I was met with “I’m tired too” or one of my favourites from a physio colleague “You should go for a run”
- Later that day (July 2020) I nearly passed out at work, the Doctor I worked with did some tests & sent me home, “this could be an after effect of COVID-19” he said.

This Isn't All in My Head

- Hearing that for the first time was a pivotal moment as I hadn't connected how I was feeling & COVID-19 before.
- I then found a Facebook group called “Long COVID Support” and felt relief reading all these posts which I could relate to.
- It was validating but scary!

Return to Work – Attempt 2

- After being sent home I was off sick for 2 weeks and returned on “lighter duties” after speaking to occupational health (easier said than done).
- Again, far too soon!
- “I feel fine if I don’t move” & also one bad experience with a GP who said “everyone working in the NHS is stressed & tired” put me off seeking any further help from them.
- I was told that my test results are all “normal” apart from being anaemic and started on iron tablets. When I called weeks later to say I was still lightheaded I was told it can take months to notice a difference and to call back in October..... this was July.

Another Crash

- I returned to the neurorehab unit in September 2020.
- Tried to complete “lighter duties” but difficult.
- Used annual leave to shorten weeks.
- October 2020 asked GP to refer me to a Doctor I used to work with that was hoping to run a “Long COVID clinic”.
- Sent home in November 2020 and off sick for 3 weeks and returned to work on a phased return.

Return to Work – Attempt 3

- Phased return to work – 4 weeks.
- Week 1 and week 2 – half days.
- Then gradually increased hours over week 3 & 4.
- Phased return extended for another 2 weeks.
- Then phased return extended for as long as necessary.....no more uncertainty (but lots of guilt).
- The clinic letter from my appointment was really helpful in discussions with occupational health.

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Long COVID Clinic

- Dec 2020 I was seen by a respiratory consultant.
- Not an “official” NHS Long COVID clinic – have never been referred.
- I had lots of tests prior to this appt including: extensive blood tests, lung function tests, lung CT scan, lung VQ scan, cardiac MRI, echocardiogram & 7 day ECG monitor.
- Surprise, surprise – most of these results were “normal” but I was started on an inhaler, vitamin D tablets and I was referred to cardiology due to my light-headedness.
- Finally, hope – I was listened to and believed despite “normal” results!

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Cardiology

- Referred for Stress echocardiogram and tilt test before appointment.
- Stress echo = normal but tilt test showed “reflex sinus tachycardia akin to POTS and vulnerable to vasovagal syncope”.
- Autonomic Dysfunction and prescribed beta blockers with the aim of weaning off them over summer.....great news I thought.....didn't quite work out that way though.

2021 – Biggest Crash Yet!

- Start of 2021 – continued with phased return.
- Beta blockers were taking edge off symptoms.
- March 2021 - relapse after 2nd vaccine and deteriorated.
- Walking around the house was difficult, standing to make a cup of tea would make me feel faint.
- July 2021 – diagnosed with Postural Orthostatic Tachycardia Syndrome (POTS).

Postural Orthostatic Tachycardia Syndrome (POTS)

- Lots of emotions – relief, sadness, overwhelmed but finally an answer.

POTS:

- Autonomic nervous system not working properly.
- Symptoms include: palpitations, light-headedness, fainting or feeling faint, chest pain, excessive sweating, gastro difficulties, visual problems, bladder problems, fatigue, brain fog, headaches & poor sleep.
- Diagnostic criteria – POTS symptoms when upright for at least 3 months, a sustained increase in heart rate of 30bpm within 10 minutes of standing (without a drop in blood pressure).

(POTS UK, 2023)

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Postural Orthostatic Tachycardia Syndrome (POTS)

- Self management: - drinking fluids, increasing salt intake, POTS exercise programme (although more to be said on this later!) & wearing compression leggings (high waisted).
- Tips:
 - Shower chair.
 - Chairs around the house.
 - Pacing – used a whiteboard to plan my week.
 - Fans.
 - Using 1 litre water bottles.
 - Smartwatch & apps – Heart Rate Monitoring.
 - Electrolytes.
 - Diary/Spreadsheet to track symptoms/patterns.

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Return to Work – Attempt 4

- October 2021
- Reasonable adjustments:
 - Able to park in a closer car park.
 - Able to get changed in the gym where I can sit/lie down.
 - Able to have 10/15 minutes extra time before expected to be in office.
 - Able to have breaks as needed.
 - Tasks that involve sitting.
 - Able to use another office so I can concentrate.

Return to Work – Attempt 4

- Phased return until end of the year.
 - Started with x2 half days per week - week 1 & 2.
 - Increased to x3 half days – week 3 and started to have small caseload.
 - Increased to x 4 half days – week 4.
 - Symptoms flaring and booster jab so annual leave and went back to x3 half days.
 - After around 8 weeks kept slightly increasing the hours – x4 days.
 - On 31st December 2021 I managed my first full day!

Return to Work – Attempt 4

- Used annual leave to shorten weeks.
- I submitted a flexible working request to reduce my hours to x4 full days.
- I have Wednesdays off so that I never work more than 2 days in a row.
- Not easy at all – I have to limit all other activity so that I can stay at work.
- I'm either at work or resting so that I can continue to work – family do all other domestic tasks.
- Still have more sickness absence than I used to.

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2022

- Some small improvements, thanks to medications and self-management strategies.
- Despite improvements, still limited:
 - I can't socialise.
 - I still can't exercise.
 - Miss out on things I enjoy: theatre, reading, concerts, travelling, walking & seeing friends.
 - Rely on family to complete all domestic tasks.
 - It is hard to say "no" to things all the time & not be able to do things that I used to do and enjoy.
 - My life has changed beyond recognition.

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2023

- Sadly, I have just left my job in neurorehabilitation as it is just too much for me.
- I start my new job next week (critical care, cardiothoracics & transplant).
- It is maternity leave cover post for 1 year so if I'm still finding it really hard then I know I need to find something more suitable for my needs but I felt it was worth a try.
- This year I have already had x2 back-to-back COVID reinfections.

Role for Safe Rehabilitation

Clinical Management Guidelines

Clinical management of COVID-19

LIVING GUIDELINE
13 JANUARY 2023



Considerations

- Pacing.
- Energy / activity management.
- Planned activity + planned rest.
- Environmental modifications.

<https://www.who.int/publications/i/item/WHO-2019-nCoV-clinical-2023.1>

World Physiotherapy Response to COVID-19 Briefing Paper 9. Safe rehabilitation approaches for people living with Long COVID: physical activity and exercise. London, UK: World Physiotherapy, 2021. ISBN: 978-1-914952-00-5.

Rehabilitation for Clients with Post COVID-19 (Long COVID): Guidance for Canadian Rehabilitation and Exercise Professionals – Canadian Physiotherapy Association

NICE Cautions against graded exercise therapy for patients recovering from COVID-19:

<https://www.nice.org.uk/guidance/ng188/resources/covid19-rapid-guideline-managing-the-longterm-effects-of-covid19-pdf-51035515742> (March 2022)

Pacing is Key – Episodic Disability and Long COVID Study

- Most participants identified pacing as the most important and helpful living strategy.
- Pacing requires careful planning and scheduling; establishing a routine.
- Pacing requires awareness and mindfulness over one's activities.
- Strategy to reduce the boom/bust cycle (Post-Exertional Malaise).
- Pacing helps to maintain control.

*"I have a very few amount of clothes. I don't have piles of laundry. It's like these are the only things that I wear. So I have a lot of like some energy saving ways. You know **there's one day a week where all the cooking gets done.** So I cook, everything goes in the fridge, **the next day, portion, everything goes in the freezer.** So everything goes into the washing machine so that the day it's laundry day it's just turning the machine and I don't have to do much. Then I have to take everything from there, put it in the dryer and then the next day things come out of the dryer because **I'm not going to try and do all of the steps at once. So everything is like divided out"***

*"[My parents] were saying like 'You are getting better' and I was like I am but I'm sacrificing... but like this time 12 months ago I was kind of still going for a daily walk for like even just five or ten minutes around the block gentle walk. I was starting to bath myself. **I was still trying to do all those things that were leaving me so exhausted. Then over the last kind of 12 months we've been playing with that as well. So now I don't do those things.** In some ways I have got better... So like yes there are improvements but then some of it's kind of just learning to manage it better."*

Long COVID – Safe Rehabilitation

Safe effective feasible rehabilitation approaches to assessment and intervention:

- Consider assessments.
- Potential for triggering an episode - could it be harmful?
- **Pacing is key** - Stop-Rest-Pace.

Open access

Original research

BMJ Open Long COVID and the role of physical activity: a qualitative study

Helen Humphreys^{1,2}, Laura Kilby,³ Nik Kudiersky,² Robert Copeland^{1,4}

18 participants; interviews; 4 themes:

- 1 – Reduced physical function compounded by cognitive and psychological effects of Long COVID.
- 2 – Challenges finding and interpreting advice about appropriately tailored physical activity.
- 3 – Managing fatigue and cognitive dysfunction while trying to resume daily living.
- 4 – Battle with reduced function; fear of permanent reduction in physical and cognitive ability.

<https://bmjopen.bmj.com/content/11/3/e047632.info>

International Journal of
Environmental Research
and Public Health



Article

The Relationship between Physical Activity and Long COVID: A Cross-Sectional Study

Jack Wright^{1,*}, Sarah L. Astill¹ and Manoj Sivan^{2,3,4}

- 477 participants; survey
- Less active than pre-COVID (27 min versus 396 min per week).
- More assistance with ADLs.
- Impact of Physical activity on LC symptoms – worsened (75%); improved (0.84%) or no effect (29%).
- April 2022 - <https://www.mdpi.com/1660-4601/19/9/5093/htm>.

J Bras Pneumol. 2021;47(E):e20210406
<https://dx.doi.org/10.36416/1806-3756/e20210406>

EDITORIAL



Mechanisms of exercise intolerance after COVID-19: new perspectives beyond physical deconditioning

Eloara Vieira Machado Ferreira¹, Rudolf K. F. Oliveira²

https://cdn.publisher.gn1.link/jornaldepneumologia.com.br/pdf/2021_47_5_3604_english.pdf

Long COVID – Safe Rehabilitation Responses

World Physiotherapy Response to COVID-19 Briefing Paper 9. Safe rehabilitation approaches for people living with Long COVID: physical activity and exercise.

London, UK: World Physiotherapy, 2021. ISBN: 978-1-914952-00-5.

Rehabilitation for Clients with Post COVID-19 (Long COVID): Guidance for Canadian Rehabilitation and Exercise Professionals – Canadian Physiotherapy Association

NICE Cautions against graded exercise therapy for patients recovering from COVID-19: <https://www.nice.org.uk/guidance/ng188/resources/covid19-rapid-guideline-managing-the-longterm-effects-of-covid19-pdf-51035515742> (March 2022)

- Multidisciplinary approach to guide rehabilitation,
 - Physical, psychological and psychiatric aspects of management.
- Ensure symptoms that could affect the ability to start rehabilitation safely have been investigated first.
- *“Panel considered careful self-pacing of exercise to be an important element of self-management. However ...in the absence of evidence relating to people with ongoing symptoms from COVID-19 it could not make specific recommendations and it agreed to include a research recommendation to determine the effectiveness of exercise for this population.”*



World Physiotherapy
response to COVID-19
Briefing paper 9

SAFE REHABILITATION APPROACHES FOR
PEOPLE LIVING WITH LONG COVID:
PHYSICAL ACTIVITY AND EXERCISE



www.longcovid.physio
www.physiosforme.com
www.workwellfoundation.org
www.dysautonomiainternational.org
www.potsuk.org

What Does This Mean for Employment & Return to Work?

Clinical management of COVID-19

LIVING GUIDELINE
13 JANUARY 2023



Considerations

- Energy conservation techniques.
- Energy / activity management.
- Pacing.
- Planned activity + planned rest.
- Environmental modifications.
- *Need to be able to self-manage energy at home prior start to work.

Conditional recommendation for

New

Interventions for rehabilitation for a return to everyday activities in post COVID-19 condition could include education and skills training on energy conservation techniques, and the provision and training in the use of assistive products to those who need further assistance with activity management and mobility. For a return to work we suggest using a return to work action plan with a prolonged and flexible phased return. Environmental modifications at work may be needed based on an individualized workplace risk assessment of personal capabilities matched to work requirements.

<https://www.who.int/publications/i/item/WHO-2019-nCoV-clinical-2023.1>

Recommendations on Return to Work

realize FOSTERING
POSITIVE CHANGE
FOR PEOPLE LIVING
WITH HIV AND OTHER
EPISODIC DISABILITIES

DECEMBER 3, 2022

Recommendations for Employers, Insurers, Human Resource Personnel and Rehabilitation Professionals on

Return to Work for People Living with Long COVID



apists

Recommendations include²⁰⁻²⁵:



Recognizing the episodic and unpredictable nature of Long COVID



Prolonged phased return



Suitable workplace accommodations



Remote work



Flexible work hours



Reduced physical and cognitive workload



Altered tasks, longer time to complete tasks



Rest-time accommodations

<https://www.realizecanada.org/wp-content/uploads/Recommendations-for-RtW-doc-final-4-3.pdf>



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Role of Occupational Therapy

Occupational Therapy for Long COVID

By Tadi Hondonga

What is Long COVID?

"Long COVID" (post-acute covid-19) is a term used to describe the persistence of COVID-19 symptoms beyond three weeks from the initial SARS-CoV-2 infection (Greenhalgh et al., 2020).

What are some of the common symptoms of Long COVID?

- Headache
- Joint/muscle pain
- Diarrhea
- Dizziness
- Difficulty sleeping
- Mood changes
- Change in smell/taste
- cough
- Tiredness or fatigue
- Post-exertional malaise
- Heart palpitations
- Shortness of breath
- Chest or stomach pain
- Brain fog
- Anxiety and depression (CDC, 2020)



Of adults reported 1 or more symptoms 4-12 weeks after initial infection (Government of Canada, 2021)



Of children reported 1 or more symptoms 4-12 weeks after initial infection (Government of Canada, 2021)

Occupational Therapy Solutions for Long COVID

Occupational therapists can help clients participate in activities that are meaningful to them through:



Energy conservation strategies



Symptom self-management strategies



Ergonomic assessments & adaptations



Occupational schedules



Mental health assessments & treatments



Physical & cognitive rehabilitation

(Wilcox & Frank, 2021)

[https://caot.ca/document/7838/OT%20&%20Long-COVID%20Infographic_2022_ENG%20\(1\).pdf](https://caot.ca/document/7838/OT%20&%20Long-COVID%20Infographic_2022_ENG%20(1).pdf)

Safe Rehabilitation

- Be aware and screen for post exertional symptom exacerbation (PESE).
- Be aware of autonomic dysfunction and conditions such as POTS.
- Standard cognitive assessments may not highlight difficulties – may require higher-level assessments.
- “Normal” score on cognitive assessment does not mean that there aren’t any difficulties.
- Ensure that OT assessments are clinically reasoned and well paced.
- Stop, Rest, Pace.

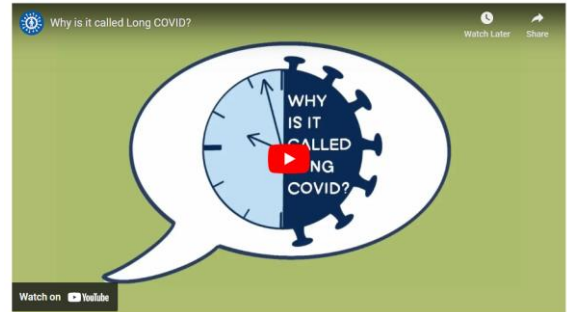


Founded in Nov 2020 - International peer support, education and advocacy, patient-led association of Physiotherapists living with Long COVID and allies.

Work internationally across advocacy, policy, guideline development and research. Education outputs are for anybody living with Long COVID and people wanting to learn more.



<https://tinyurl.com/what-is-long-covid>



<https://tinyurl.com/why-is-it-called-long-covid>

Resources – Long COVID Physio



Connecting to Create Change
Disability Inclusion in All Responses
Bringing Lived Experience to Disability and Rehab



<https://longcovid.physio/forum>



<https://longcovid.physio/long-covid-video-series>

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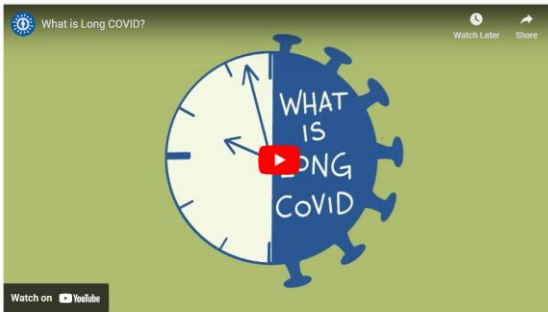


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Some Additional Resources



- World Health Organization – [Clinical management of COVID-19: Living guideline](#).
- Long COVID Physio – Videos from Long COVID Physio International Forum Patient-Led Research Collaborative – [Resources for Researchers](#).
- Safe Rehabilitation - World Physiotherapy COVID-19 Briefing Paper 9. Safe rehabilitation approaches for people living with Long COVID: physical activity and exercise. London, UK: World Physiotherapy, 2021. <https://world.physio/sites/default/files/2021-06/Briefing-Paper-9-Long-Covid-FINAL-2021.pdf>.



<https://tinyurl.com/what-is-long-covid>

www.longcovid.physio
www.physiosforme.com
www.workwellfoundation.org
www.dysautonomiainternational.org
www.potsuk.org

Takeaway Messages

- Disability – multidimensional; episodic.
- Uncertainty – key component.
 - Intersected with the episodic nature of disability, characterized as unpredictability of episodes, their length, severity and triggers, and uncertainty of Long COVID over the long-term, which had implications on broader health.
- Community engaged approaches are key.
- Important implications for return to work.
 - Guidelines on Long COVID management.
 - Role for rehabilitation.
 - Clear recognition and diagnostic criteria of disability;
 - Models of care, employment, income support.



<https://longcovid.physio/long-covid-video-series>

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Thank you & Acknowledgements

Questions?

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