

The supposed “calm” after the storm – Post Acute Covid Syndrome (PACS) and how Occupational Therapy can assist you in getting back to your life.

COVID-19 changed all our lives instantly. When the pandemic hit South Africa most of us desperately waited for the pandemic to be over. Surviving the COVID-19 infection was a concern for people across the spectrum of health. What happened to many people after they survived the infection was not the “calm” after the storm that they expected. They were faced with a multitude of symptoms that had the power to impact their function and daily life for many months/years.

The focus of the research and medical care in the early phases of the pandemic were focused on helping people survive a COVID-19 infection and was not yet focussed on what Post-Acute COVID Syndrome (PACS) was and how to manage it. As a result, many people were told to “wait it out” and that “it is just the aftaafter-effectsom COVID-19”. Luckily, we now know a lot more about PACS and how to manage this world-wide phenomenon.

According to the World Health Organisation (WHO) “Post COVID-19 condition occurs in individuals with a history of probable or confirmed SARS CoV-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. Symptoms may be new onset following initial recovery from an acute COVID-19 episode or persist from the initial illness. Symptoms may also fluctuate or relapse over time.”

Studies from all over the world have shown that PACS can impact the functioning of multiple systems in our body resulting in a multitude of symptoms which can include the following;^{1,2,3,4,5,6,7}

Neurological complications

Brain fog, Fatigue, Headache, Strokes, Seizures, Encephalopathies, Nerve disorders, Disturbance in smell and/taste, POTS, Parkinson's disease, Dementia, dry eyes, pink eye.

Cardiovascular complications

Dysrhythmias/ Arrhythmias, Hypertension, Dyslipidemia, Myocardial injury, Myocarditis, Heart failure, Acute Coronary Syndrome, VTE, Cardiomyopathy, Hypercoagulation, DIC, Cardiogenic shock, Cardiac arrest, Low Blood pressure.

Respiratory complications

Chronic cough, Pulmonary fibrosis, Bronchiectasis, Pulmonary vascular disease, Worsening of pre-existing respiratory conditions (asthma/COPD), Shortness of breath.

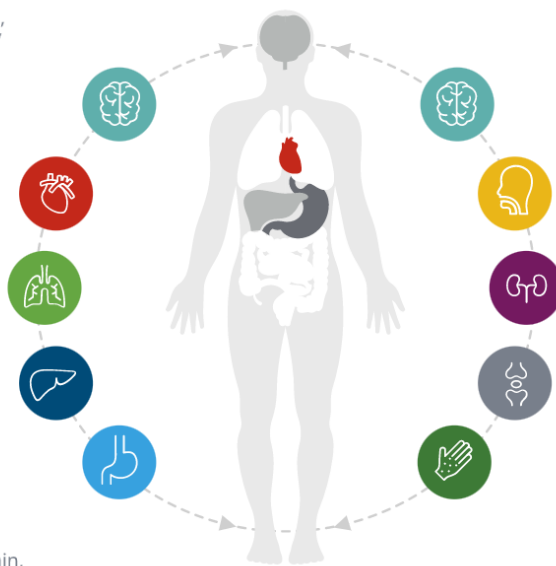
Endocrine complications

New onset diabetes mellitus.

Gastrointestinal disorders

Post infectious dysmotility, Abdominal pain, Nausea, Diarrhea, Anorexia, GI vascular diseases, Gastroesophageal reflux.

In pediatric age-group: Multi system inflammatory syndrome



Psychiatric complications

Depression, Anxiety, Psychotic disorders, Mood disorders, Sleep disorders, Substance misuse, Post Traumatic Stress Disorder, Delirium, Suicidality.

ENT complications

Tinnitus, sore throat, Earache, Hearing loss, Inner ear disorder.

Renal complications

Renal damage, Acute renal injury, Chronic Kidney Disease, Accentuation of post hypertension/Diabetes Mellitus renal disorders.

Musculoskeletal complications

Myositis, Chest pain, Rhabdomyolysis, Muscle pain, Joint pain, Muscle disorders including increase severity of pre-existing diseases.

Dermatological complications

Vasculitis rash, Urticaria, Chilblains, Vesicular Purpura, Irritant dermatitis, Hair loss.

Figure taken from Report: IQVIA Institute Assessing the Global Burden of Post-COVID-19 Conditions. IQVIA Institute for Human Data Sciences, 6 December 2021

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⁷ Tabacof, Laura MD; Tosto-Mancuso, Jenna PT, DPT; Wood, Jamie PT, PhD; Cortes, Mar MD; Kontorovich, Amy MD, PhD; McCarthy, Dayna DO; Rizk, Dahlia MD; Rozanski, Gabriela PT, PhD; Breyman, Erica BS; Nasr, Leila BS; Kellner, Christopher MD; Herrera, Joseph E. DO, FAAPMR; Putrino, David PT, PhD. Post-acute COVID-19 Syndrome Negatively Impacts Physical Function, Cognitive Function, Health-Related Quality of Life, and Participation. American Journal of Physical Medicine & Rehabilitation 101(1):p 48-52, January 2022. | DOI: 10.1097/PHM.0000000000001910

How does PACS impact South African's?

Discovery Health Medical Scheme (DHMS) collected data from its members (+/- 7000 respondents) through a survey. They wanted to ascertain member-reported symptoms post COVID-19 infection as well as to understand the challenges of daily living experienced post COVID-19 infection.

Graph: Deterioration reported in activities of daily living, by month, since recovery from COVID-19

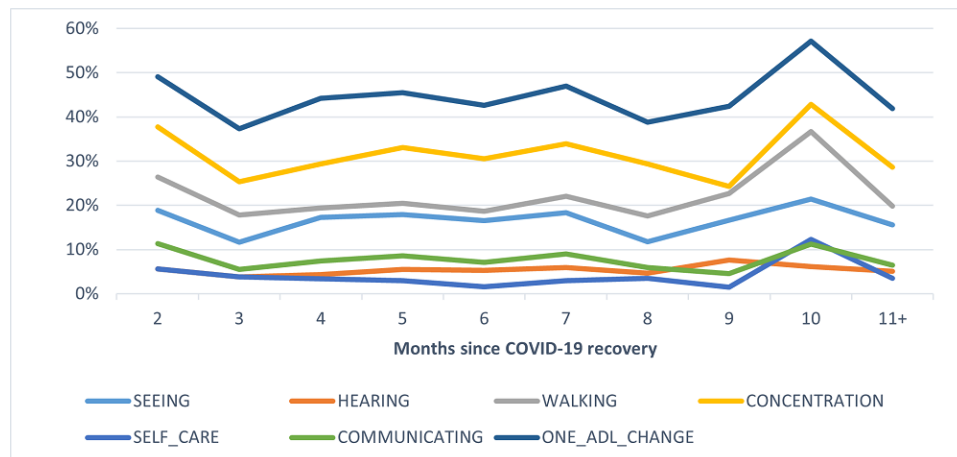


Figure from: Long COVID symptoms, impact on carrying out daily activities: Survey of just over 7,000 medical scheme members reveals key insights, 16 June 2022, <https://www.discovery.co.za/corporate/health-insights-impact-of-a-long-covid-19-symptoms>.

This graph demonstrates the deterioration that people with PACS experienced in their activities of daily living, it is evident that PACS impacts people's day to day living for months after the infection. Paying attention to the high percentage of deterioration recorded in member's concentration, walking and having had to change the way they complete at least one activity of daily living 11 months post infection.

The impact of not being able to carry out daily activities is significant to PACS sufferers because they become dependent on others for assistance, require ongoing health-care, and are unable to return to work or previous activities. The inability to engage in previous tasks influence one's self-efficacy, quality of life, socioeconomic status as well as having significant impact on mood and anxiety^{8,9}.

So, where does Occupational Therapy fit in?

According to the World Federation of Occupational Therapy (WFOT) "Occupational therapy is a client-centred health profession concerned with promoting health and wellbeing through occupation. The primary goal of occupational therapy is to enable people to participate in their activities of everyday life. Occupational therapists achieve this outcome by working with people and communities to enhance their ability to engage in the occupations they want to, need to, or are expected to do, or by modifying the occupation or the environment to better support their occupational engagement." (WFOT 2012)

Research has shown that in order to manage the complex PACS an individualised rehabilitation program is needed.^{10,11,12,13}

Occupational Therapy can assist with the following:

- Personalised readjustment and graded return to meaningful activities
- Fatigue management and energy conservation
- Cognitive rehabilitation - Strategies to manage brain fog as well as targeted cognitive stimulation to improve areas such as attention, memory, executive function, concentration and information processing
- Stress and anxiety management and coping skills

⁸ Tabacof, Laura MD; Tosto-Mancuso, Jenna PT, DPT; Wood, Jamie PT, PhD; Cortes, Mar MD; Kontorovich, Amy MD, PhD; McCarthy, Dayna DO; Rizk, Dahlia MD; Rozanski, Gabriela PT, PhD; Breyman, Erica BS; Nasr, Leila BS; Kellner, Christopher MD; Herrera, Joseph E. DO, FAAPMR; Putrino, David PT, PhD. Post-acute COVID-19 Syndrome Negatively Impacts Physical Function, Cognitive Function, Health-Related Quality of Life, and Participation. *American Journal of Physical Medicine & Rehabilitation* 101(1):p 48-52, January 2022. | DOI: 10.1097/PHM.0000000000001910

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- Building self-efficacy and providing self-management strategies for symptom management
- Development of a graded return to work program as well as strategies/accommodations to reduce the impact of symptoms on work productivity
- Managing neurological complications through providing neurorehabilitation (Motor, sensory, cognitive, visual & behavioural rehabilitation)
- Sleep Hygiene
- Pain Management



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