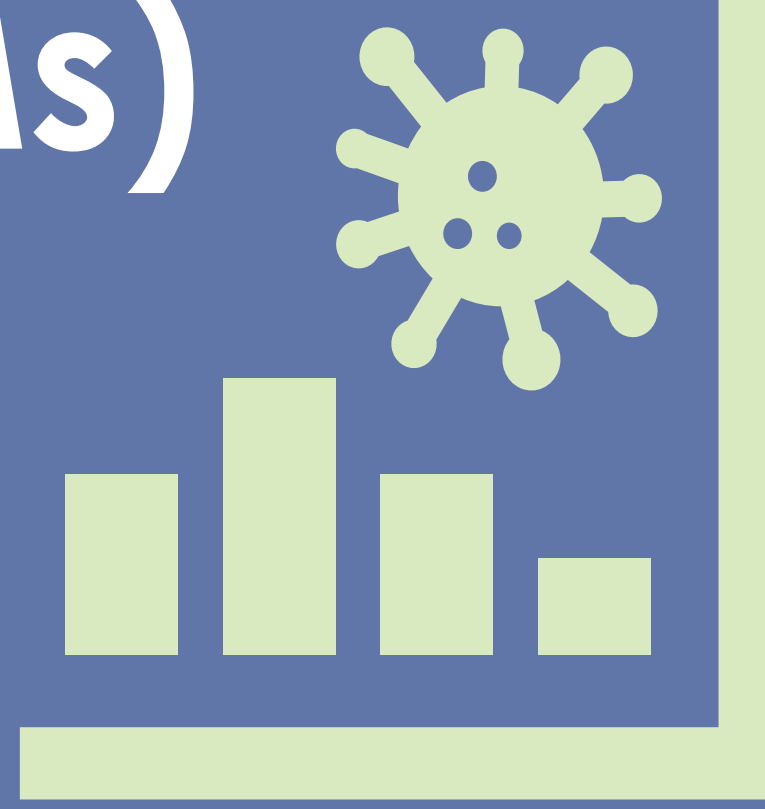


Comprehensive Selection of Patient Reported Outcome Measures (PROMs) for Characterizing Long Covid (LC)

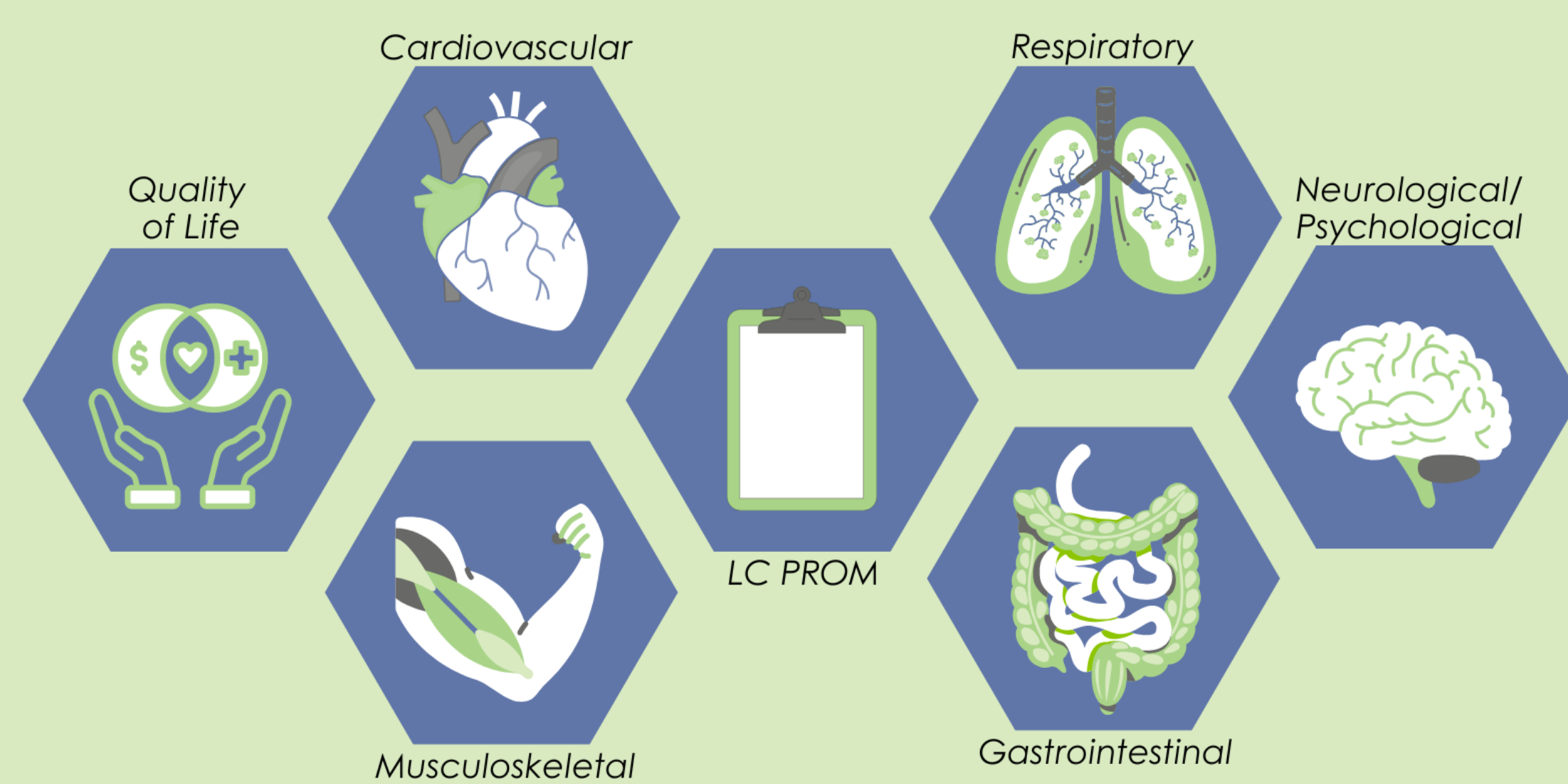


Dr. Hammed Ejalonibu, Alaa Aburub, Adelaide Amah, Dr. Pawan Kumar, Dr. Gary Groot

AIM: To Identify Patient-Reported Outcome Measures (PROMs) that can effectively characterize impacts and outcomes of Long COVID (LC)

Background

Research has shown that a range of symptoms can persist after the clearance of the severe acute syndrome coronavirus 2 (SARS-CoV-2) infection phase in many individuals. This condition, termed long COVID (LC), can last for weeks or months, resulting in a range of symptoms experienced by individuals with LC, including cognitive impairment, shortness of breath, cough, chest pain, and generalized muscle weakness. Despite the appreciable number of symptoms documented to date, one of the key challenge remains in the characterization of LC, including its prevalence, clinical indicators, and healthcare utilization.



Methods

To address this problem, we propose utilizing Patient-Reported Outcome Measures (PROMs) tools to characterize LC because of their subjective, patient-centric, and multi-dimensional nature. A systematic analysis was conducted to identify and select a combination of PROMs tools to characterize symptoms and assess outcomes in LC population.

The analysis was conducted in three distinct phases:

1. We reviewed existing validated PROMs in people living with LC.
2. We identified and reviewed PROMs associated with the most frequently reported LC symptoms to ensure a comprehensive and robust characterization of LC.
3. We evaluated all the PROM tools in a traditional merit-matrix based on their psychometric evidence, mode of delivery, cost, and administration time.

Results

Property mapping of available PROM tools using a traditional merit-matrix approach identified the Post-Covid Functional Scale (PCFS), and the European Quality of Life–5 Dimensions (EQ-5D-5L) as tools that can adequately capture outcomes in LC population. These tools can be paired with:

- Short Confusion Assessment Method (sCAM) – **cognitive impairment**
- Patient Health Questionnaire (PH-9) – **depression/anxiety**
- Athens Insomnia Scale (AIS) – **sleeping difficulty**
- Migraine Disability Assessment (MIDA) – **headache**
- Bournemouth Questionnaire (BQ) – **general pain**
- Fatigue Severity Scale (FSS) – **fatigue**
- Breathlessness Cough and Short Sputum Scale (BCSS) – **breathlessness and cough**



Conclusion

Our paper identifies appropriate PROMs tools that can effectively capture the diverse impacts of LC. The data acquired from these tools will give critical insights to researchers, clinicians, and policymakers, allowing for the improvement of patient-centric care and transforming LC healthcare reporting. Additionally, this work can be used a framework to guide the selection of outcomes measures related to LC in clinical practice.

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For more information, please contact hejalonibu@hqc.sk.ca.

