

Physical Therapy UNIVERSITY OF TORONTO

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Background: Many people are living with persistent and prolonged symptoms following COVID-19 infection, known as Long COVID. • Several symptoms have been reported, which pose complex challenges with working, daily activities, and overall health.

- Measuring disability in Long COVID is important for understanding the experiences, challenges, and needs of patients.
- The Episodic Disability Questionnaire (EDQ) was developed for people living with HIV, and captures multi-dimensional and fluctuating health challenges. The properties of the EDQ are unknown in the context of Long COVID.
- A Long COVID EDQ Supplement (LC-EDQ Suppl) was developed by members of the team for use with the EDQ to capture elements of disability in Long COVID not captured by the EDQ.

Purpose

To assess the sensibility of the EDQ and LC-EDQ Suppl among adults living with Long COVID in Canada, Ireland, the United Kingdom (UK), and United States (US).



Long COVID EDQ Supplement (LC-EDQ Suppl)

Purpose: To be used with the EDQ to describe disability	Develo
experienced by adults living with Long COVID.	persons
Structure: 21 questions meant to be used in combination with	COVID s
the EDQ. There is no total score for the LC-EDQ Suppl.	40 adul membe

Methods

Study Design: Survey.

Community Engagement: Expertise in measure development, refinement, study recruitment, and interpretation of findings. **Participants & Recruitment:**

- Adults (≥18 years) living with Long COVID in Canada, Ireland, the UK, and the US.
- Recruitment online via COVID Long-Haulers Canada, Long **COVID Advocacy Ireland, Long COVID Physio, Long COVID** Support, and Patient-Led Research Collaborative.

Analysis: Sensibility scores ranged from 1 (highly disagree) to 7 (highly agree). We considered the EDQ and LC-EDQ Suppl sensible if median sensibility scores were $\geq 5/7$ (7-point Likert scale) for ≥80% (15/18) of the items. Six items were reverse-scored.





Sensibility of the Episodic Disability Questionnaire Among Adults with Long COVID

Episodic Disability Questionnaire (EDQ)

- **<u>Purpose</u>**: To assess the presence, severity, and episodic nature of disability.
- **Structure:** Interval scale, generic patient-reported outcome measure.
- **Scoring:** EDQ Scores range from 0-100. Presence and severity scales are scored using a Rasch analysis, episodic nature scores are a simple sum. Higher scores indicate greater presence, severity, or episodic nature of disability.

opment: Developed by members of this team, including is with lived experiences, and representatives from Long support groups. Questions are based on interviews with Its living with Long COVID, then refined and piloted by pers of the study team.

Data Collection: A four-part web-based survey administered via Qualtrics from January 2024 to October 2025: 1) EDQ; 2) LC-EDQ Suppl; 3) Sensibility questionnaire (18 items) assessing the face and content validity, ease of use, and format of these measures; and 4) Demographic questionnaire.





PATIENT-LED RESEARCH COLLABORATIVE

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Acknowled Research -**Research Gaps and Priorities Funding Opportunity** (FRN: GA4 – 177753)

Results

teristics of Participants (n=	798)	Sensibility Questionnaire Findings (n=798)	
Characteristic N (%)		Sensibility Item Median	
Country of reside	nce (n=796)	Able to answer all questions (n=796) 7	
	Canada 344 (43%)	Clear and easy to understand instructions (n=795) 7	
	ed Kingdom 182 (23%)	Clear and easy to understand questions (n=794) 7	
The U	nited States 172 (22%) Ireland 98 (12%)	EDQ and LC-EDQ made sense (n=794) 7	
Ag	(in years)	Response categories were adequate (n=797) 6	
-	percentile) 47 (37, 56)	EDQ and LC-EDQ captured all elements of disability (n=797) 5	
	Gender	EDQ and LC-EDQ included important questions to describe disability 5	
	Woman 631 (79%)	(n=797)	
	Man 134 (17%)	Able to find answers in the list of options (n=797) 5	
er (non-binary, trans man, trans women, gender no Ethnic group and/or r a		Questions were repetitive* (n=793) 5	
	White 694 (88%)	There were missing question* (n=798) 4	
Mixed or multiple et	hnic groups 23 (3%)	Questions seemed out of order* (n=792) 5	
ack British, Caribbean, African, or Africa		Questions resulted in unwanted thoughts/feeling* (n=794) 5	
Asian, South Asian, or South		Took too long to complete* (n=797) 5	
rst Nations, Indigenous, Metis, or Nativ Hispanic o	r Latino/a/x 5 (1%)	Took too much effort to complete* (n=793) 5	
o, Middle Eastern, North African, Native Hawaiian,		Answering the questions helped in some way (n=794) 5	
Jewish, Gree	ek, Portuguese) 17 (2%)	EDQ and LC-EDQ were easy to complete (n=792) 5	
hange in employment due to Long CO	VID (n=788)	Would want to receive a summary of results (n=796) 5	
No change 143 (18%)		Overall, EDQ and LC-EDQ were useful in describing experiences living 5	
Yes, unable to work/on leave of absence 247 (31%)		with Long COVID (n=796)	
Yes, works reduced hours 183 (23%)		Sensibility scores of $\geq 5/7$ were achieved for 16/18 (89%) of items on the	
Yes, lost job/now unemployed 119 (15%) er changes (role change, unrelated to Long COVID) 96 (12%)		sensibility questionnaire. Items indicated with an asterisk (*) were reverse-	
		scored, such that higher scores indicated greater sensibility. EDQ and LC-EDQ	
cores (n=798)		Suppl demonstrated sensibility in this sample of adults living with Long COVID.	
Presence MedianSeverity M(25th 75th(25th, 75th)	edian Episodic Median (25 ^{th,} 75 th	Discussion	
Domain percentile) percentile)		 EDQ and LC-EDQ Suppl possess sensibility (face and content validity, 	
hysical 75 (66, 100) 49 (43, 55)	60 (30 <i>,</i> 80)	ease of use, format) for use among this sample of adults living with	
gnitive 100 (100, 100) 48 (42, 61)	33 (0, 100)	Long COVID in Canada, Ireland, the UK, and the US.	
Nental- 100 (77, 100) 51 (41, 61)	40 (0, 80)	Implications for Clinical Practice: Clinicians and researchers can use	
rtainty 100 (78, 100) 55 (45, 65)	0 (0, 40)	findings to inform approaches to disability measurement among adults living Long COVID.	
-to-day Activity 100 (78, 100) 45 (38, 54)	20 (0, 60)	 <u>Strengths & Limitations</u>: Strengths included our community engaged 	
Activity 100 (78, 100) 43 (58, 54)		approach, and international scope of study. Limitations include	
clusion 67 (55, 82) 47 (41, 53)	0 (0, 29)	diversity of sample, and methodological challenges with a web-	
edgement: Canadian Institutes of He	alth	based survey study design.	
- Operating Grant: Emerging COVID-		 Future Research: Further property assessment is needed in the 	

reliability.





i di thei property assessment is needed in the context of Long COVID, including assessing construct validity and