

Effects of Long Covid in Daily Life

Natalie Cohen¹

¹ *cohenn360@gmail.com*

¹ *Montfort College, Muang Chiang Mai, Chiang Mai 50000, Thailand*

Abstract

Most patients who have COVID-19 fully recover within 3-4 weeks. Nonetheless, approximately 30% of worldwide patients even those who had only mild symptoms of the disease continue experiencing persistence and sequelae medical complications after an initial recovery which might vary among individuals. These symptoms referred to “long term COVID” or post-COVID-19 syndrome. It has affected many aspects of daily life worldwide and might be cause other severity or disease in the future. Sick leave pattern of long covid can be presented as an indicator of health in a working age population. This review aimed to compile the common long covid symptom that cause a long sick leave among population.

Keywords: Long Covid, Sick leave, Daily life ;

1. Long Covid Syndrome

Long Covid is a term describing the condition after the Covid-19 infection, with long-term symptoms in several body's systems especially olfactory and gustatory dysfunction. (1, 2) The World Health Organization defines long covid as symptoms beyond 12 weeks. However, the cause, prevalence, duration, and prognosis of the protracted symptoms are still unclear. (3)

Long Covid is common in women and older. Presence of more than five symptoms during Covid-19 infection is associated with increased risk of developing long Covid. The common symptoms associated with long Covid include fatigue, headache, dyspnea, hoarse voice and myalgia. Presence of co-morbidities also increases the risk of developing long Covid syndrome. (3)

The prevalence of long covid is increasing worldwide, there are several symptoms persisting and presenting after recovery from covid-19. The impact of long-covid-19 is incalculable for the economy, public health, healthcare, and the health insurance system. The working ability and sick leave after covid-19 infection recovery shall be an indicator of health impact. (4, 5) Moreover, The persistence or other medical complications that cause a long sick leave must be concerned to investigate and surveillance.

2. Prevalence of Long Covid Symptoms

This review examined the literature data published in PubMed and MEDLINE on long COVID between 2019 and 2022. The following key terms were used: “long COVID” associated with “persistence of SARS-COV-2 virus” “Prevalence of long covid” “COVID-19” and “sick leave”. Results were limited to publications in English only. Currently, there is an abundance of accumulating literature that classified long COVID symptom into 6 categories based on the localization such as generalized, cardiorespiratory, gastrointestinal, neuropsychological, otolaryngologic and dermatological as shown in the table 1.

Table 1. Prevalence of Signs and Symptom of Long Covid in adult and Children

System	Signs and Symptoms				References
	Adult	Prevalence	Children	Prevalence	
Generalized	Fatigue	3-87%	Fatigue	5-92%	(6-14)
	Fever	2-40%	Muscle weakness	5-15%	
	Muscle pain	6-13%	Muscle pain	7-21%	
	Joint pain	7-40%	Joint pain	8-15%	
Cardiorespiratory	Cough	22-61%	Dyspnea	9-35%	
	Chest pain	13-28%	Chest pain	10-25%	
			Palpitation	6-49%	
			Tachycardia	21-45%	
Gastrointestinal	Nausea	7-35%	Diarrhea	15-28%	
	Vomiting	2-24%	Abdominal pain	23-47%	
			Nausea	4-56%	
Neuropsychological	Headache	25-49%	Anxiety	3-75%	
	Psychological Symptoms	7-65%	Depression	12-75%	
	Cognitive dysfunction	115-87%	Difficulty concentrating	2-81%	
			Obsessive	5-72%	
			Compulsive disorder		
			Insomnia	4-45.5%	
			Hypersomnia	6-45.7%	
			Headache	2-13%	
			Memory loss	4-17%	
			Dizziness	3-45.5%	
Otolaryngologic	Loss taste and/or smell	45-76.4%	Sore throat	3-45.5%	
			Nasal obstruction	12-44%	
Dermatologic	Skin eruptions	2-25%	Skin eruptions	3-35%	

Recent reports the prevalence of long covid in adults and children identified most of symptoms are related with neuropsychological system. The children have a higher prevalence neuropsychological symptom than adult. The most common symptoms in adult is loss taste or smell and chronic cough. Fatigue was the most common symptom and was consistent with its well-known association after viral infection. (15) These clinical manifestation might be taken long time to recovery and may cause other chronic complication symptoms.

3. Pattern of sick leave by long covid among working population

The rate of sick leave and reason during pandemic of covid-19 in Germany, Sweden and France has been study. In Germany, found that 5.8% of patients were on long-term sick leave between March 2020 and February 2021. It was also observed that female sex, older age, and several chronic diseases were positively and significantly associated with the risk of long-term sick leave. (4) In France, the average of sick leave duration was 30-60 days after the onset of the Covid-19, even the patient got recovery in few weeks but they still have a persistence symptoms especially fatigue, cough, headache, dyspnea and anosmia/ageusia. (16) In Sweden, the average of covid-19 sick leave duration was 35 days. More than one out of ten has been identified with long covid. The residential care workers, obesity and dyspnea at symptom onset were associated with longer sick leave. (5)

4. Conclusion

This review showed that the sick leave due to long covid took a long duration and affects the daily life of working population with the several symptoms. This group of people seems to be heterogeneous and should not be neglected.

References

1. Callejon-Leblic MA, Martin-Jimenez DI, Moreno-Luna R, Palacios-Garcia JM, Alvarez-Cendrero M, Vizcarra-Melgar JA, et al. Analysis of Prevalence and Predictive Factors of Long- Lasting Olfactory and Gustatory Dysfunction in COVID-19 Patients. *Life (Basel)*. 2022;12(8).
2. Boscolo-Rizzo P, Hummel T, Hopkins C, Dibattista M, Menini A, Spinato G, et al. High prevalence of long-term olfactory, gustatory, and chemesthesis dysfunction in post-COVID-19 patients: a matched case-control study with one-year follow-up using a comprehensive psychophysical evaluation. *Rhinology*. 2021;59(6):517-27.
3. Chen C, Hauptert SR, Zimmermann L, Shi X, Fritsche LG, Mukherjee B. Global Prevalence of Post COVID-19 Condition or Long COVID: A Meta-Analysis and Systematic Review. *J Infect Dis*. 2022.
4. Jacob L, Koyanagi A, Smith L, Tanislav C, Konrad M, van der Beck S, et al. Prevalence of, and factors associated with, long-term COVID-19 sick leave in working-age patients followed in general practices in Germany. *Int J Infect Dis*. 2021;109:203-8.
5. Westerlind E, Palstam A, Sunnerhagen KS, Persson HC. Patterns and predictors of sick leave after Covid-19 and long Covid in a national Swedish cohort. *BMC Public Health*. 2021;21(1):1023.
6. Haddad A, Janda A, Renk H, Stich M, Frieh P, Kaier K, et al. Long COVID symptoms in exposed and infected children, adolescents and their parents one year after SARS-CoV-2 infection: A prospective observational cohort study. *EBioMedicine*. 2022;84:104245.
7. Stephenson T, Shafran R, Ladhani SN. Long COVID in children and adolescents. *Curr Opin Infect Dis*. 2022;35(5):461-7.

8. Gupta M, Gupta N, Esang M. Long COVID in Children and Adolescents. *Prim Care Companion CNS Disord.* 2022;24(2).
9. Thallapureddy K, Thallapureddy K, Zerda E, Suresh N, Kamat D, Rajasekaran K, et al. Long-Term Complications of COVID-19 Infection in Adolescents and Children. *Curr Pediatr Rep.* 2022;10(1):11-7.
10. Zimmermann P, Pittet LF, Curtis N. How Common is Long COVID in Children and Adolescents? *Pediatr Infect Dis J.* 2021;40(12):e482-e7.
11. Hageman JR. Long COVID-19 or Post-Acute Sequelae of SARS-CoV-2 Infection in Children, Adolescents, and Young Adults. *Pediatr Ann.* 2021;50(6):e232-e3.
12. Hertting O. More research is needed on the long-term effects of COVID-19 on children and adolescents. *Acta Paediatr.* 2021;110(3):744-5.
13. Fernandez-de-Las-Penas C, Guijarro C, Plaza-Canteli S, Hernandez-Barrera V, Torres-Macho J. Prevalence of Post-COVID-19 Cough One Year After SARS-CoV-2 Infection: A Multicenter Study. *Lung.* 2021;199(3):249-53.
14. Munblit D, Bobkova P, Spiridonova E, Shikhaleva A, Gamirova A, Blyuss O, et al. Incidence and risk factors for persistent symptoms in adults previously hospitalized for COVID-19. *Clin Exp Allergy.* 2021;51(9):1107-20.
15. Crook H, Raza S, Nowell J, Young M, Edison P. Long covid-mechanisms, risk factors, and management. *BMJ.* 2021;374:n1648.
16. Carvalho-Schneider C, Laurent E, Lemaigen A, Beaufils E, Bourbao-Tournois C, Laribi S, et al. Follow-up of adults with noncritical COVID-19 two months after symptom onset. *Clin Microbiol Infect.* 2021;27(2):258-63.