

# The Use of Tai-Chi and Qigong to Mediate Long-Haul COVID-19 Symptoms: A Case Report

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## Background

- Long haul COVID-19 presents in 10-30% of infected patients.<sup>1</sup>
- Long-haul Covid-19 symptoms are described as fatigue, dyspnea, and headache lasting for months after initial disease resolution; less typical symptoms include cognitive impairments, chest and joint pain, myalgia, smell / taste dysfunctions, cough, mood changes, gastrointestinal issues and cardiac affects.<sup>2</sup>
- Qigong and Tai Chi are considered components of Eastern medicine practice using body position, controlled movements, deep rhythmic breathing, meditation, and mental focus to restore homeostasis and reduce stress.<sup>3</sup>
- While recent articles have proposed the use of Tai Chi in mitigating COVID-19 symptoms<sup>4</sup>, none have reported quantifiable effects of Qigong and Tai Chi in patients with long-haul COVID-19.

## Case Presentation

- 62-year-old Caucasian female Eastern European descent, was diagnosed with COVID-19 on 1/7/2022 presented with acute dyspnea, dizziness, cough, headache, chills, 100.9F fever, rhinorrhea, sore throat
- Patient was immunized for COVID-19 with Moderna, red cap 0.5 ml primary dose on 1/14/2021, and boosters on 2/11/2021, and 9/10/2021.
- Patient was prescribed: Promethazine-dextromethorphan 6.25-15 mg/5 mL liquid, 5-10 mL by mouth 4 times daily, azithromycin (ZITHROMAX) 250 mg tablet 2 tablets on day 1 and one tablet every day after, and albuterol (PROAIR HFA) 90 mcg/puff inhaler every 6 hours. At the follow up visit 10 days after the initial visit, the patient presented with acute dyspnea, fatigue and dizziness with exertion and was self-motivated to start a 22-minute Tai Chi gentle exercise program every morning.
- Tai Chi exercise program was discussed with the patient's PCP; she began a gentle movement yang-style Tai Chi program designed for seniors. After 2 months, patient increased morning Tai Chi routine to 35 minutes and added a 10-minute Qigong breathing practice nightly. The Tai Chi and Qigong practices were found on YouTube. The patient monitored her SpO2 levels and resting heart rate nightly (Table 1) and weight weekly (Table 2).

## Data

**Table 1- Change in SPO2% and Resting Heart Rate with Tai Chi and Qigong Practice**

Date	Average nightly SPO2%	Average Resting Heart Rate (bpm)	Tai Chi Frequency	Qigong Frequency
1/16/22-1/22/22	83	78	1 day 22 minutes/ 3x week	
1/23/22-1/29/22	90	74	1 day 22 minutes/ 3x week	
1/30/22-2/5/22	89	71	1 day 22 minutes/ 3x week	
2/6/22-2/12/22	88	75	1 day 22 minutes/ 3x week	
2/13/22-2/19/22	91	74	1 day 35 minutes/ 3x week	
2/20/22-2/25/22	91	71	1 day 35 minutes/ 4x week	
2/26/22-3/5/22	89	71	1 day 35 minutes/ 4x week	
3/6/22-3/12/22	91	72	1 day 35 minutes/ 4x week	1 day 10 minutes/ 4x week
3/13/22-3/20/22	92	71	1 day 35 minutes/ 4x week	1 day 20 minutes/ 4x week
3/21/22-3/26/22	93	70	1 day 35 minutes/ 4x week	1 day 30 minutes/ 4x week
3/27/22-4/2/22	93	69	1 day 35 minutes/ 4x week	1 day 30 minutes/ 4x week

**Table 2- Change in Weight during Tai Chi and Qigong Practice**

Date	Weight (Pounds)
1/17/22	240
2/9/22	238.8
2/16/22	229.2
2/23/22	227.6
3/2/22	226.6
3/9/22	225.8
3/16/22	223.6
4/20/22	217.4

## Discussion

- After 10 weeks of Tai Chi and Qigong, her SPO2 increased from 83% to 93%. This indicates that Tai Chi and Qigong may be able to alter lung physiology and alleviate dyspnea in long-haul COVID-19 patients. It is postulated that Tai Chi improves lung function by counteracting the fibrotic scar formation, which could then decrease long-term COVID-19 fatigue and dyspnea.<sup>4</sup>
- The patient lost weight during the time period which corresponds to previous reports demonstrating Tai Chi can reduce waist circumference<sup>5</sup>. Decrease in weight has previously been shown to correlate with increased lung function.<sup>6</sup>

## Conclusion

- With no specific treatment for long-haul COVID-19, Tai Chi and Qigong can be a cost-effective and easily-accessible way of maintaining and improving quality of life in patients with long-haul COVID-19.
- Further large-scale experimental studies need to be conducted on the role of Tai Chi and Qigong in managing quality of life in patients with long-haul COVID-19.

## References

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