

Examining the Effectiveness of Physical, Occupational, and Speech Therapy in the Treatment of Patients with COVID-19

Background

Since the outbreak of COVID-19 in Wuhan, China in late 2019, it has spread quickly to other countries, creating a worldwide pandemic. After prolonged hospitalizations, many have been left with significant debilitation and functional impairment from complications of moderate to severe COVID-19. These complications include ICU-acquired weakness, delirium, pneumonia, hypoxic respiratory failure/acute respiratory distress syndrome, sepsis, cardiomyopathy and arrhythmia, acute kidney injury, and more. Despite extraordinary public health measures to slow the spread of COVID-19, a high proportion of individuals are requiring hospital-level and ICU-level care, creating a surge of patients needing inpatient rehabilitation to optimize function [1].

Purpose

The purpose of this research study is to demonstrate the effectiveness of physical, occupational, and speech therapy in the treatment of individuals recovering from COVID-19 in the acute inpatient rehabilitation setting.

Design

An observational pretest-posttest study of patients diagnosed with COVID-19 admitted to Adventist HealthCare Rehabilitation was conducted.

Results



Methods

Results from the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF PAI), Six Minute Walk Test (6MWT), Modified Barthel Index - Shah Version (mBI), Orientation Log, and Cognitive Log were collected and analyzed utilizing a paired t-test.

Conclusions

Statistically significant improvements [$p < 0.05$] in IRF PAI ($p = 2.02 \times 10^{-14}$), 6MWT ($p = 2.29 \times 10^{-9}$), mBI ($p = 5.95 \times 10^{-9}$), Orientation Log ($p = 1.81 \times 10^{-2}$), and Cognitive Log ($p = 9.21 \times 10^{-4}$) scores demonstrate that physical, occupational, and speech therapy improve the mobility, self-care, and cognitive performance of individuals recovering from COVID-19 at the inpatient rehabilitation level of care. As understanding of this novel disease continues to unfold, ongoing research in this area of practice is warranted to continue to demonstrate the role of rehabilitation in the COVID-19 recovery process.

References

1. Centers for Disease Control and Prevention. (2020, March 30). *Interim clinical guidance for management of patients with confirmed coronavirus disease (COVID-19)*. Retrieved from <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

