Conclusion: Environments that promote empathetic practice during clinical placement could impact the development of empathy in undergraduate healthcare education more widely. This study highlights a need for educational design that focuses on both the patient and the environment.

S16: Post-Acute Covid-19 Cognitive Sequelae in an Aging Population

Symposium Overview

Background: In the years since the beginning of the SARS-CoV-2 pandemic, research has revealed that patients with infection can experience cognitive and other neurological symptoms that do not always remit following infection clearance. Older people tend to be at particularly high risk of decline following infection.

Research Objective: This symposium will report studies of post-acute sequelae of Covid-19, with particular attention toward cognitive and other neurological symptoms in an aging population. It will emphasize the importance of methodological rigor in studies going forward, including large and representative samples and comprehensive, longitudinal cognitive assessments.

Methods: The symposium will consist of three talks and discussion.

Results: The first talk will summarize what is known about cognitive symptoms in post-acute Covid-19 and discuss biological and environmental mechanisms that may account for these symptoms. Importantly it will propose ways in which ongoing and future studies of post-acute cognitive symptoms can enhance scientific rigor and make recommendations for assessment and management of patients with post-acute cognitive sequelae of Covid-19. The second talk will review first- and second-wave findings of cognitive functioning in the context of neurological, pulmonological, and other psychological and daily functioning factors from a longitudinal study of recovered asymptomatic, severe, and never-infected patients. It will reveal small to medium sized effects of Covid-19 disease status in several areas of cognition, in addition to other medical outcomes, with more severe effects found in older adults relative to younger people. The third talk will present data collected in 139 older adults approximately seven months after diagnosis with

Covid-19. It reports higher levels of subjective (67.2%) relative to objective (4.7%) cognitive dysfunction and finds that severity of subjective cognitive dysfunction was predicted by psychiatric distress, but not demographic, illness, or objective cognitive functioning.

Conclusions: Cognitive decline can occur following infection with Covid-19, and older adults are at particularly increased risk relative to the general population. Objective assessment of cognitive functioning is imperative, and future studies must employ rigorous scientific

methodology to elucidate the nature and trajectory of cognitive functioning in post-acute Covid-19. Findings will inform best practices for diagnosing and managing cognitive impairment in clinical populations.

Background: Covid-19 infection is associated with increased rates of acute and post-acute cognitive dysfunction that may portend significant consequences for patient functioning and quality of life.

Research Objective: This lecture will 1) summarize what is known about cognitive symptoms in post-acute Covid-19; 2) discuss biological and environmental mechanisms that may account for these symptoms; 3) propose ways in which ongoing and future studies of post-acute cognitive symptoms can enhance scientific rigor; and 4) make recommendations for assessment and management of patients with post-acute cognitive sequelae of Covid-19.

Methods: The literature on post-acute Covid-19 sequelae was reviewed, with particular attention toward limitations in methodology.

Results: Depending on how it is assessed, Covid-19 cognitive dysfunction occurs in a subset of patients (~ 24%) of all age groups, across the spectrum of disease severity, and may persist following viral resolution. Early cognitive studies were limited by methodological shortcomings, secondary to Covid-19's virulence and transmissibility. Most studies have resorted to suboptimal cognitive assessments such as self-report measures, which are distal measures of brain functioning, or brief dementia screeners that provide objective data but are insensitive to subtle cognitive impairment. Small sample sizes also plague existing studies, resulting in low power, limited external validity, and an inability to properly control for potential confounders. Despite the disproportionate impact of COVID-19 on racial and ethnic minorities, these populations remain underrepresented in cognitive studies. Further, the degree to which pre-existing risk factors for cognitive impairment and other pandemic-related factors (e.g., social isolation, depression, anxiety, PTSD) may contribute to post-COVID-19 cognitive dysfunction are unknown, marking the need for appropriate comparison groups. The range and severity of cognitive sequelae are varied. There appear to be meaningful differences in the experiences of COVID-19 patients who were hospitalized versus those who were not. Similarly, younger individuals greatly differ from older individuals in terms of pre-existing risk factors, comorbidities, and consequently, cognitive profiles.

Conclusions: While studies to date examining subjective and objective post-acute Covid-19 cognitive functioning have been invaluable in unmasking post-acute neuropsychiatric symptoms of Covid-19, it is imperative that future studies employ rigorous methodological approaches across diverse samples. In the meantime, patients' complaints of post-acute cognitive decline must be taken seriously, but also measured objectively, with a consideration toward pre-existing factors that portend greater or lesser likelihood of cognitive difficulties following Covid-19 infection.

Background: Clarity about the common cognitive phenomena associated with "brain fog" and attention or memory problems after the initial resolution of COVID-19 infection is needed.

Research Objective: To systematically study cognitive sequelae in the context of neurological, pulmonological, and other critical psychological and daily functioning factors.

Methods: 160 participants were seen at three study visits over 12 months. Participants comprised 52 Asymptomatic/Mild (ASY) remitted Covid-19 patients, 52 severe (SEV) remitted Covid-19 patients and 56 control (CTL) participants. Neurocognitive function, pulmonary health, neurological status, serum biomarkers NSE and Nf-L, and neuroradiological scans were assessed at baseline and 12 months. A shorter examination of neurocognition, lung function, and neurological status only was conducted at the 6-month visit (Visit 2).

Results: In initial analyses of the first wave of data, complex attention, language, and short-term verbal and visual memory differed between healthy controls and Covid-19 patients. Generally, the neurocognitive performance of the ASY cohort lay between that of the more SEV and CTL. There was a similar pattern of results regarding lung function and brain volume. No differences were found for serum biomarkers NSE or Nf-L. Currently, the second wave of data is almost finished being collected. Data collection will be complete in early Spring of 2023. Initial longitudinal findings will be analyzed and presented.

Conclusion: Small to medium-sized effects of Covid-19 disease status in several areas of cognition (language, complex attention, and short-term memory), certain aspects of neurological function, pulmonary function, and brain morphology were found at the baseline visit. Older adults were more likely to be severely affected by Covid-19 and thus more severely affected from a neurocognitive perspective than younger age groups.

Background: Subjective cognitive dysfunction is often reported following SARS-CoV-2 infection. Studies of outpatients and primarily younger adults suggest that mood symptoms and fatigue are also common and may contribute to subjective cognitive dysfunction.

Understanding factors driving subjective cognitive dysfunction is important to guiding treatment interventions for older patients with persistent post-COVID-19 cognitive complaints.

Research Objective: We will present data demonstrating the demographic factors, illness characteristics, psychiatric symptoms, and objective cognitive performances that predict persistent subjective cognitive dysfunction in older post-COVID-19 patients and contrast these with findings from their younger counterparts.

Methods: Approximately seven months after COVID-19 diagnosis, patients in the Johns Hopkins Post- Acute COVID-19 Team (JH PACT) multidisciplinary clinic underwent a telephone-based clinical assessment evaluating depression, anxiety, fatigue and subjective cognitive complaints. Patients also completed objective tests of neuropsychological functioning assessing processing speed, language, learning, memory, and executive functioning. Of the >400 patients assessed to date, 139 were ≥60 years of age (M 67.9; 60.4% female, M education 14.1 years, 54% ICU).

Results: In preliminary analyses among older adults, a greater proportion of patients reported subjective cognitive dysfunction (67.2%) relative to the proportion producing a cognitive composite \geq 1.5 SD below expectation (4.7%). Psychiatric symptoms were also common (PHQ-9 \geq 10 in 22.5%, GAD-7 \geq 10 in 12.3%). Linear regression models revealed that among older adults, severity of subjective cognitive dysfunction was predicted by psychiatric distress, but not demographic, illness or objective cognitive functioning. In contrast, subjective cognitive difficulties were predicted by a combination of demographic, illness, and objective cognitive variables among younger patients.

Conclusion: Among patients followed in a long-COVID-19 clinic, we observe high rates of clinically significant psychiatric distress and subjective cognitive dysfunction but relatively less frequent objective cognitive deficits. Among older adults, cognitive concerns appear driven by neuropsychiatric symptoms and may be appropriate targets for intervention. We will present ongoing work evaluating predictors of cognitive complaints including performance across specific cognitive domains in > 400 patients.

S17: Debate Series – Quo Vadis Psychogeriatrics?

S18: Newcomers to euthanasia and assisted suicide: challenges for Psychogeriatrics with a focus on Spain and Portugal

CHAIR: Manuel Martín-Carrasco

Co-chair: Manuel Gonçalves-Pereira

SPEAKERS: Manuel Martín-Carrasco, Manuel Sánchez-Perez, Lia Fernandes, Rui Barranha, Ana R. Ferreira, Javier Olivera

Euthanasia or assisted suicide are now legal in several European countries. Spain has approved related legislation in 2022, and in Portugal the subject is currently under debate after preliminary ratification. This remains a controversial topic, raising passionate discussions that sometimes hamper the need to consider, in depth, the ethical, clinical, and operational difficulties of processes of this type. Older age people do not necessarily lose their autonomy with age, nor