Remote Virtual Reality Exposure Therapy for Post-Intensive Care Syndrome
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INTRODUCTION

- Post-intensive care syndrome (PICS) defined as new or worsening impairment in physical, cognitive, or psychiatric health that results from critical illness and persists following discharge from intensive care.¹
  - Physical symptoms include myopathy and neuropathic weakness that impair performance of activities of daily living.
  - Cognitive symptoms are extremely prevalent, up to 78% incidence, and include deficits in memory, attention, and executive function.
  - Psychiatric impairment is seen in up to 67% of patients who survive an ICU admission; this includes depression, anxiety, and PTSD symptoms, each with an incidence of approximately 25%.
- PICS remains largely unrecognized and underdiagnosed, with no official diagnostic criteria, no established protocols for screening and testing, and no standard of care for management and treatment.²

RESEARCH AIMS

- Assess feasibility and offer a proof-of-concept study design for remote, accessible, and scalable VRET for the psychiatric components of post-intensive care syndrome.

STUDY DESIGN

- Patients recruited from the neurological and medical ICU at Columbia University Irving Medical Center.
  - Inclusion criteria: - 24 hours on mechanical ventilation - High risk for developing PTSD at discharge, as defined by IES-R score of 24–32 - No pre-existing psychiatric diagnoses
  - Patients assessed with baseline Beck Depression Index (BDI) and Telephone Interview for Cognitive Status (TICS).
  - Patients randomized to receive VRET therapy or no treatment.
  - Experimental group receives introductory VRET session shortly before discharge, and all VRET videos continue to be available to patients on YouTube until 6 months discharge.
  - Control group: - No further intervention

CASE REVIEW

- Admitted and intubated for COVID-19
- Memories of ICU: - Preoccupied with delirious dreams - “I was a wolf,” “was in Egypt,” “was at sea” - In all dreams, “I wanted to get out”
- Symptom profile:
  - Intense emotions, difficulty sleeping
  - Predominantly frustration and anger
  - Session 1:
    - Visible emotional reactions to monitors
    - Sounds from ICU incorporated into dreams
    - “Very helpful,” “Glad I wasn’t crazy”
  - Further sessions:
    - Increased stress about COVID-19
    - Anxiety at beginning of video sessions that decreased with further exposure time
    - Desire to leave thoughts of ICU stay behind

REFERENCES


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