E-Poster

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A Feasibility Study of Tele-Rehabilitation in East Riding for Patients With Cognitive Impairment Following Acquired Brain Injury

Topic: Telerehabilitation

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BACKGROUND

Cognitive impairment is a common sequelae of Acquired Brain Injury [ABI], that can have marked detrimental health and economic effects. Cognitive rehabilitation can help improve functional outcomes and quality of life in these patients. Many patients are however unable to receive sufficient dose and intensity of cognitive rehabilitation input due lack of work force to deliver the input and unequitable access. Tele-rehabilitation using cognitive exercises based on video-games technology can be used to address this issue and we set out to explore the feasibility of using such a tool (Intendu Functional Brain Trainer) in a selected cohort of community dwelling patients with post ABI cognitive impairment.

METHODS

A six-month pre-post intervention study aimed at evaluating the feasibility of tele-cognitive rehabilitation in a sample of patients with cognitive impairment following ABI. The intervention is a novel interactive system with tailored cognitive exercises software (Intendu©) which can be connected to the patient's own television or display screen. Following a screening and baseline assessment using validated cognitive assessment tools (D-KEFS, WWT, RBANS, BMIPB), each participant undertook two sessions of 20 minutes cognitive exercises per week for a total of 12 weeks. Repeat cognitive assessments were administered following the 12-week intervention.

RESULTS

This study was impacted by the COVID-19 pandemic, 10 participants with ABI were recruited (62.5% recruitment rate). The overall completion rate was 90%, with 60% of participants returning completed pre & post-intervention data. Thirty percent of participants returned partially completed data. Primary outcome measure: percentage change in mean-average cognitive assessment scores pre and post intervention. Secondary outcome measures were collected on quality of life, leisure activity participation, and device satisfaction.

CONCLUSION

The primary goal of the study was achieved with regards recruitment

One participant withdrew from the study. Nine (90%) completed the study. Full outcome data was available for six (60%) of participants.

WWT distance [17.6m to 28m] and overall health improved, comparing SF-12 & EQ5D 5L data, also improved.

Statement of Disclosures

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