Background: Cognitive remediation therapy (CRT) interventions are increasing in their use in outpatient settings. These interventions have demonstrated their efficacy for improving functional outcomes when combined with appropriate rehabilitation interventions. However, most of these interventions have been targeted at outpatients with schizophrenia. It is not clear how many cases with other conditions would manifest cognitive impairments and whether baseline screening would be an effective triage tool. This study addressed this question and looked at measuring the cognitive improvement achieved.

Methods: Consecutive admissions (n=272) to a residential and outpatient young adult rehabilitation program were administered the Brief Assessment of Cognition for Affective Disorders (BAC-A) at the time of admission. Diagnoses were obtained with the M.I.N.I. International Psychiatric Inventory. A cut-off t-score of 40 (one SD below the normative mean), a Montreal Cognitive Assessment (MoCA) score of ≤ 25, and/or designation of the Cognition and First Episode of psychosis (CAFÉ) Track were the criteria used for selection of cases referred to CRT. At the completion of treatment, patients that were referred to CRT were evaluated again using the BAC-A to see how cognition had improved.

Results: The sample received diagnoses that were bipolar disorder for 23%, major depression for 48%, and schizophrenia 12%. Other diagnoses were less common. The sample was 52% female. Overall 41% of patients were referred to CRT based on meeting at least one of the criteria, however only 22% of the cases met criteria on the BAC-A for impairment based on a t-score of 40 or less. The proportion of cases who met criteria was quite similar across diagnoses, although the schizophrenia sample was considerably smaller. Thus, a minority of cases were cognitively impaired.

Discussion: In a younger sample of patients seeking psychiatric rehabilitation, the presence of global cognitive impairment was lower than reported in previous studies of similar diagnostic groups (Reichenberg et al., 2009). The sample manifested considerable everyday disability, but this facility does not accept Medicaid/Medicare for payment demographics may be different in broader samples. Cognitive impairment in these patients at this facility has been previously reported to correlate with everyday disability (Vargas et al., 2014), so the demographic differences suggest the use of different global criteria for cognitive impairment.

Outcomes

- 272 patients were assessed during the admission process from May 2016 to May 2017
- 41% were referred to CRT based on CAFÉ recovery track and/or BAC-A ≤ 40
- Patients on average trained 12 days and earned 270 stars during CRT. One star represents a 5 point (i.e., 0.1 SD) increase in cognition

Impact

- Motivation to participate in CRT during treatment day is low and considered “boring” when delivered in computer lab setting
- Maximize social engagement while patients participate in CRT via use of the training apps for smart phones and tablets
- Patients that also participated in the Healthy Challenge physical exercise group (N = 12) improved their BAC-A scores by 5.75 points (i.e., 0.6 SD)
- Patients that participated in CRT tended to show improved graduation rates

Funding Source: This quality assurance research was funded by Skyland Trail