

recovery compared to patients diagnosed with ANMDARE.

**Participants and Methods:** The current study included archival data of pediatric patients ( $N=10$ ) aged 3-16 years ( $M=12.39$ ,  $SD=4.97$ ) admitted to an inpatient rehabilitation program at a metropolitan academic medical center between 2017-2022; of these patients, 7 were characterized as having IAE, 5 were female-at-birth, and 7 were of Hispanic/Latine origin. The Functional Independence Measure for Children (WeeFIM; Msall et al., 1994) domain scores (i.e., cognition, self-care, mobility, motor) were utilized to assess acute recovery. Welch's  $t$ -tests were analyzed separately at admission and discharge between etiological conditions (i.e., idiopathic vs. known) for each WeeFIM domain. Subsequently, change scores were calculated across the length of inpatient stay for each WeeFIM domain, and Welch's  $t$ -tests determined statistical differences in change scores between etiological conditions.

**Results:** Contrary to predictions, WeeFIM self-care domain scores were significantly higher at inpatient admission for patients with IAE ( $M=27.57$ ) as compared to patients with ANMDARE ( $M=13.00$ ),  $t(7) = 1.95$ ,  $p < .05$ ; trending differences were also found in admission scores on the WeeFIM motor domain between IAE ( $M=43.86$ ) and ANMDARE ( $M=24.00$ ) diagnostic groups,  $t(6) = 1.71$ ,  $p = .07$ . Consistent with predictions, patients with ANMDARE generally had an appreciable acute recovery as compared to patients with IAE. Specifically, trending differences were found in change scores on the WeeFIM self-care domain between IAE ( $M=10.29$ ) and ANMDARE ( $M=30.33$ ) diagnostic groups,  $t(6) = -1.64$ ,  $p = .05$ . Likewise, trending differences were found in change scores on the WeeFIM motor domain between IAE ( $M=21.43$ ) and ANMDARE ( $M=47.67$ ) diagnostic groups,  $t(5) = -1.82$ ,  $p = .06$ . No significant or trending differences were observed at discharge.

**Conclusions:** Results have implications for optimizing the assessment and treatment of pediatric patients diagnosed with autoimmune encephalitis. Specifically, patients with ANMDARE may have a more severe initial presentation yet improved recovery course compared to patients characterized as idiopathic during their inpatient stay, particularly in motor and self-care functional domains; data highlights the importance of inpatient rehabilitation for patients diagnosed with ANMDARE. Current limitations include small sample sizes across

diagnostic groups, likely due to the rarity of the disease. It is recommended that future research investigate the prognosis of pediatric patients diagnosed with autoimmune encephalitis longitudinally, at follow-up and across the lifespan.

**Categories:** Medical/Neurological Disorders/Other (Child)

**Keyword 1:** autoimmune disorders

**Keyword 2:** pediatric neuropsychology

**Keyword 3:** cognitive rehabilitation

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## 88 Social Cognition and Information Processing Speed in Individuals with Multiple Sclerosis and Co-Morbid Diabetes: An Interim Analysis

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**Objective:** Multiple sclerosis (MS) is associated with cognitive and social cognitive deficits. Social cognition impairments may include difficulty with facial expression and emotion recognition. People with MS (PwMS) may also not be aware of their cognitive challenges as demonstrated through discrepant objective and subjective assessments. Research recently conducted in demyelinated mouse models demonstrated that metformin, a drug typically used to treat type II diabetes mellitus (DMII), promotes remyelination and reverses existent social cognition impairment by repressing the monoacylglycerol lipase (MgII) enzyme in the brain. We aim to translate this basic science research and are conducting a pilot study to determine if metformin improves social cognition in PwMS. This project will compare social cognition in those with MS and comorbid DMII who are treated with metformin and those who are not. For the purposes of this interim data

analysis, we collapse across both MS groups who are, and who are not, treated with metformin. The current objective is to evaluate the relationship between subjective (i.e., perceived empathy), objective social cognition and information processing speed (IPS) in PwMS and co-morbid diabetes.

**Participants and Methods:** Preliminary data on 15 PwMS are included. Participants completed a demographic questionnaire, a cognitive assessment battery, an objective social cognition assessment and self-report questionnaires. These questionnaires assessed subjective social cognition, fatigue, mood, and disability level.

**Results:** Preliminary results showed that IPS was positively correlated with the affective empathy domain of social cognition,  $r = .53$ ,  $p = .04$ . Additionally, IPS was positively correlated with objective social cognition,  $r = .71$ ,  $p = .003$ . Follow-up regression analyses demonstrated that IPS predicted objective social cognition,  $R^2 = .71$ ,  $SE = 3.04$ ,  $F(1, 13) = 13.36$ ,  $p = .003$  and subjective social cognition,  $R^2 = .53$ ,  $SE = 5.39$ ,  $F(1, 13) = 4.97$ ,  $p = .04$ . However, subjective and objective measures of social cognition were not correlated,  $p > .05$  and remained uncorrelated when IPS was controlled for,  $p > .05$ .

**Conclusions:** A majority of the variance in social perception is explained by IPS, suggesting that how quickly one can think may be a fundamental cognitive process to allow optimal functioning in social situations. While the reason for the relationship between IPS and subjective social cognition is perhaps less apparent, it may reflect a more global cognitive compromise that impacts both cognitive and social processes. This lends support to the Relative Consequence Model that suggests IPS deficits are a fundamental cognitive deficit underlying other more complex cognitive processes. The lack of correlation between subjective perception of empathy and objective social cognition requires further exploration and could potentially be related to some individuals with MS having a diminished ability to judge their own social proficiency. Further analyses with a larger sample will be conducted to assess group differences in social cognitive outcomes and MglI levels between metformin and non-metformin groups. If PwMS who take metformin have better social cognition compared to PwMS who do not take metformin, MglI levels can be used as a biomarker to guide metformin treatment with the goal of improving social cognition.

**Categories:** Multiple

Sclerosis/ALS/Demyelinating Disorders

**Keyword 1:** social cognition

**Keyword 2:** information processing speed

**Keyword 3:** cognitive functioning

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## 89 The Neuropsychology of Complex Homelessness

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**Objective:** Although the cognitive profiles of people experiencing homelessness have been described in the literature, the neuropsychological profile of people experiencing complex homelessness has not been delineated. Complex homelessness is homelessness that continues despite the provision of bricks and mortar solutions. People experiencing complex homelessness often have an array of physical health, mental health, substance use, neurodevelopmental and neurocognitive disorders. The present study aimed to delineate the neuropsychological profile of people experiencing complex homelessness and explore the utility of neuropsychological assessment in supporting this population.

**Participants and Methods:** 19 people experiencing complex homelessness in Sydney, Australia, were consecutively referred by specialist homelessness services for neuropsychological assessment. They underwent comprehensive assessment of intelligence, memory and executive functioning and completed questionnaires to screen for the presence of ADHD, PTSD, depression, anxiety and stress. A range of performance validity measures were included. Referrers were asked to complete questionnaires on history of childhood trauma, psychological functioning, drug and alcohol use, functional cognitive abilities, homelessness factors, personality, risk of cognitive impairment and adaptive functioning