Correspondence: Emily Dvorak; Teachers
College, Columbia University and Icahn School
of Medicine at Mount Sinai;
eam2270@tc.columbia.edu

---

35 The Association Between Social Support and Cognition in Older Adults with Multiple Sclerosis

Hannah R Cohen[1], Roee Holtzer[1,2]
[1]Ferkauf Graduate School of Psychology,
Yeshiva University, Bronx, New York, USA.
[2]Department of Neurology, Albert Einstein
College of Medicine, Bronx, New York, USA

Objective: Research has shown that social support has protective effects against cognitive decline in older adults. No study to date has examined the relationship between social support and cognition in older adults with Multiple Sclerosis (MS). Advances in treatments for MS have resulted in a growing number of aging individuals with MS, making it imperative to identify modifiable risk factors that affect cognition, such as social support. Therefore, this study was designed to examine the association between social support and cognition in older adults with MS and healthy controls.
Participants and Methods: Participants were older adults with MS (N = 70; M age = 64.71, SD + 3.86 years; 62.9% female) and community-residing older adults (N = 74; M age = 68.42, SD + 5.96 years; 58.1% female). Perceived social support was assessed using the Medical Outcomes Study Modified Social Support Survey (MSSS), which measures emotional/informational support, tangible support, affectionate support, and positive social interaction. Cognition was assessed with the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS), which measures immediate and delayed memory, attention, language, and visuospatial abilities. Linear regressions stratified by group status (MS vs. control) assessed the association between perceived social support and cognition.
Results: Linear regressions controlling for age, gender, education, and medical comorbidities showed that higher total MSSS scores were related to higher RBANS scores in the MS group (β = 0.243, p = .046) and marginally in the control group (β = 0.239, p = .053). Examination of MSSS domains showed that emotional/informational support (β = 0.246, p = .044) and positive social interaction (β = 0.279, p = .023) were significant predictors of RBANS performance in the MS group. Positive social interaction (β = 0.262, p = .011) was a significant predictor of RBANS performance in the control group. Analyses that further adjusted for depression scores showed that positive social interaction remained a significant predictor of RBANS performance in the control group (β = 0.361, p = .005). In contrast, depression scores attenuated associations between all aspects of social support and RBANS performance in the MS group (p > .05).
Conclusions: Among older adults, the association between social support and cognition varied as a function of MS status. Overall perceived social support, emotional/informational support, and positive social interaction were significantly associated with cognition in the MS group. However, depressive symptoms attenuated these associations. In contrast, positive social interaction was the key driver of the association between social support and cognition among the healthy controls, and notably, this association remained significant even after adjusting for depressive symptoms.

Correspondence: Hannah R Cohen, Ferkauf
Graduate School of Psychology, Yeshiva
University, hcohen6@mail.yu.edu

---

36 Assessing the Effect of Multiple Sclerosis and Aging Using an Ecological test of Prospective Memory

Kim Charest[1], Marie-Julie Potvin[1], Estefania
Brando[1], Alexandra Tremblay[1], Elaine Roger[2],
Pierre Duquette[2], Isabelle Rouleau[1,2]
[1]Department of Psychology, Université du
Québec à Montréal, Montreal, Canada. [2]Centre
de Recherche du Centre Hospitalier de
l'Université de Montréal, Montreal, Canada

Objective: Prospective memory (PM) is the ability to remember to produce an action at a specific moment in the future signaled by the occurrence of a specific event (EB condition), a time or a time interval (TB condition). Detection of the appropriate moment corresponds to the prospective component (PC), while production of the appropriate action corresponds to the retrospective (RC) component. Although PM difficulties have been reported in healthy aging and in association with Multiple Sclerosis (MS), PM has not been examined in elderly people with MS (PwMS), which is particularly relevant since their life expectancy has improved significantly in recent years due to available treatments, and PM is essential to daily functioning. The main objective of this study was to investigate whether the decline in PM performance with advancing age is influenced by the presence of multiple sclerosis (MS). This study also aimed to clarify the type of PM impairment (PC vs RC in TB and EB conditions) in MS as a function of age.
Participants and Methods: A total of 80 participants were recruited and separated into four groups: elderly PwMS (n = 20), young PwMS (n = 20), elderly healthy controls (HC) (n = 20) and young HC (n = 20). PM and its components were measured using the TEMP, an experimental ecological tool developed by our laboratory that has been validated in previous studies. In addition, all participants underwent a series of neuropsychological tests specific to MS (MACIFMS) and aging (Boston Naming Test, Clock Drawing Test, Towers of London, Trail making Test, Stroop, MoCA).
Results: On the TEMP total score, a two-way ANOVA showed a main effect of age ($F[1,75]=47.4$, $p<0.001$, $\eta2 = .40$), a main effect of the presence of MS ($F[1,75]=19.51$, $p<0.001$, $\eta2 = .21$) as well as a significant Age X Disease interaction ($F[2,74] =5.40$, $p=0.023$, $\eta2 = .07$). Direct comparison between EB and TB conditions revealed that for the PC, only elderly PwMS had more difficulty in the TB than in the EB condition ($Z = -2.51$, $p = 0.012$), whereas RC score was significantly lower in the TB than in the EB condition in all groups except in younger controls (younger PwMS : $Z = -2.56$, $p = 0.01$; elderly HC : $Z = -3.31$, $p < 0.001$; elderly PwMS :$Z = -3.04$, $p = 0.002$).
Conclusions: The TEMP revealed a marked impairment in PM in elderly PwMS compared to elderly HC and young PwMS. This impairment was particularly evident on the PC component in the TB condition. RC difficulties noted in the TB condition in all but younger controls reflect the arbitrary nature of the cue-action link that is particularly sensitive to episodic memory difficulties often observed in aging and MS.

---

37 Adherence to treatment in Multiple Sclerosis. The importance of personality, executive functions, and social support.

Carlos Alberto Martínez Canyazo[1], Lucia Crivelli[2], Ismael Calandri[2], Micaela Arruabarrena[1], María Agustina Piedrabuena[1], María Celica Ysrraelit[1], Ricardo Allegri[1], Jorge Correale[1]
[1]Fleni, Capital federal, Buenos aires, Argentina.
[2]Fleni, Capital federal, Buenos Aires, Argentina

Objective: To test whether adherence to treatment in patients with MS is influenced by cognitive variables (executive functions), personality, and social support.
Participants and Methods: This is a pilot observational, descriptive, cross-sectional study. 60 patients with Relapsing remitting MS (73.33% female; age: 41.41 ±14.00) undergoing medical treatment (28 dymethilfumarate, 7 ocrelizumab/ rituximab, 6 fingolimod, 5 interferon, 5 natalizumab, 4 cladribine, 3 teriflunomide, 1 alemtuzumab, 1 glatiramer acetate) underwent a comprehensive multi-component evaluation including :
cognition, social support (using the self-reported record of social support scale), personality (using the NEO-FFI questionnaire) and evaluation of treatment adherence using the Morisky Green Levine Medication Adherence Scale
Participants were divided into two groups according to their adherence to medical treatment, low vs. high adherence was defined using a cutoff score of 4. Differences between groups were evaluated using Student's t-test