

Patients and caregivers' discrepancy on reported personality traits in Multiple Sclerosis

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Introduction:

Neuropsychiatric abnormalities and personality changes are frequently reported in patients with multiple sclerosis (MS) (Paparrigopoulos et al.2010; Nocentini et al. 2012).

In particular, recent studies proposed a possible link between some personality traits and SM such as the presence of high levels of neuroticism and low empathy, agreeableness and conscientiousness (Benedict et al. 2013).

The present study aims to understand whether the MS patients' self-perception of personality traits match with what is perceived by caregivers. Eventual discrepancies and identities could help planning interventions for both patients and caregivers.

Methods:

Our study included 44 outpatients with a definite diagnosis of MS. All subjects were evaluated using a neurological disability scale (Expanded Disability Status Scale –EDSS), neuropsychological tests, and self-report questionnaires for assessing anxiety (State Trait Anxiety Inventories-STAI-Y), depression (Chicago Multi-scale Depression Inventory -CMDI), anger (State Trait Anger Expression Inventory-STAXI-2) fatigue (Modified Fatigue Impact Scale-MFIS), and personality characteristics (Big five Inventory-BFI self-report and informant). A comparative analysis between BFI self-report and BFI informant scores was performed in order to evaluate differences in perception of patient's personality characteristics. Then correlations of both BFI scores with those of other scales, tests and self-report questionnaires were investigated to identify factors contributing to differences in BFI scores. Analyses were conducted with SPSS 18.

Results:

The analysis of BFI questionnaires showed a significant difference ($p < 0.01$) between the scores of the Neuroticism dimension of BFI patient and BFI caregiver. The score of BFI patient Neuroticism dimension correlates positively with all sub-scales of CMDI, STAI Y, BDI, and two STAXI-2 sub-scales (Trait anger and Anger expression). Conversely, only a positive correlation of the Neuroticism score of BFI caregiver with the CMDI Veget subscale and STAXI-2 Trait anger subscales resulted.

Table 2. Correlations between clinical scale and BFI Patient Neuroticism

Clinical Scale	Neuroticism
CMDI tot	.584**
CMDI mood	.569 **
CMDI evaluative	.404 **
CMDI vegetative	.497 **
STAI Y State	.417 **
STAI Y Trait	.601 **
BDI	.345*
STAXI-2 r/s	n.s.
STAXI-2 rs/s	n.s.
STAXI-2 rs/v	n.s.
STAXI-2 rs/f	n.s.
STAXI-2 r/t	.551**
STAXI-2 rt/t	.551**
STAXI-2 rt/r	.422*
STAXI-2 er/out	.419*
STAXI-2 er/in	.332*
STAXI-2 cr/out	n.s.
STAXI-2 cr/in	n.s.
STAXI-2 ier	.354*

Note: * $\leq .05$; ** $\leq .01$

Table 1. Demographic and clinical data of MS patients enrolled.

	MS study cohort (n = 44)	
	Mean (SD) / n	Range (min - max)
Age (years)	43.8 (10.5)	22.0 – 68.0
Gender (female/male)	24/ 20	-
Educational level (years)	14.4 (3.1)	8.0 – 20.0
EDSS score	3.3(1.6)	1.0 – 6.5
Time from MS diagnosis (years)	11.2 (9.7)	0.08 – 39.0
MS disease course		
relapsing remitting	27	-
secondary progressive	17	

Discussion and Conclusion:

Our work showed differences in the perception of neuroticism by MS patients and their relative caregivers. In particular, caregivers seem to perceive patients' neuroticism as more connected to physical features of the disease and long lasting psychological traits, while patients' perception is related more to the psychological states that could be at the basis of Neuroticism. This issue could be important for MS patients as it helps caregivers to understand, improve, and better support the pathology of their relatives.

References:

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