# Cognitive impairment screening in a cohort of multiple sclerosis outpatients: demographic characteristics, psychological features and relation to hospital care.

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## Introduction

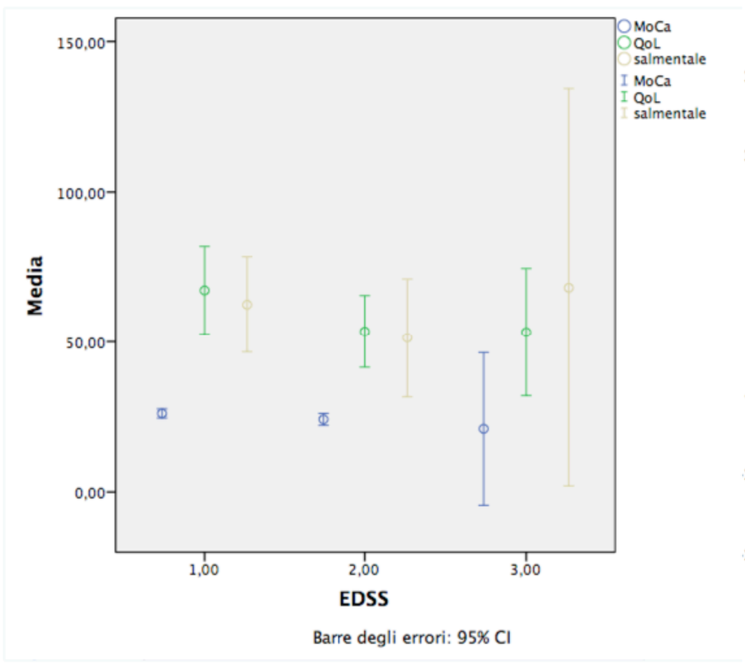
We screened a consecutive population of outpatients of the MS service for cognitive decline and emotional disturbances using a single prospective protocol. Purpose of the study was to assess factors associated with abnormal MoCA scores.

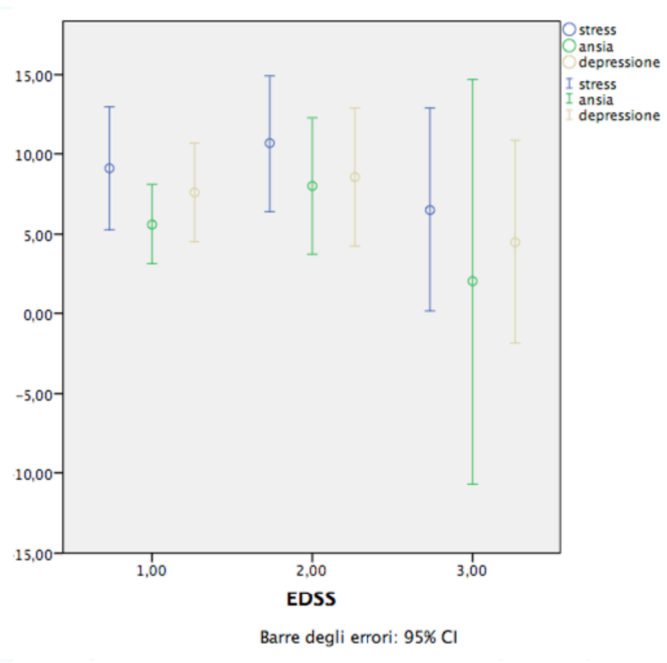
## Methods

Materials: We interviewed in 3 months 25 patients of the 235 followed up, 3 of them were excluded because of language barriers or refusal. A formal interview was done using MoCA, DASS-21, MSQOL-54, EDSS, 9-HPT, T25FWT.
Methods: Statistical analysis was done using Mann Whitney U test for qualitative MoCA scores using a cut off score of 26, while one-way ANOVA was used to test potential association for quantitative variables , Pearson's r was used as correlations screening. The study population consisted of 20 MSRR outpatients with median EDSS 3. Median age 42.5 yrs. Scholarity 13 yrs. Seven years of median disease duration.

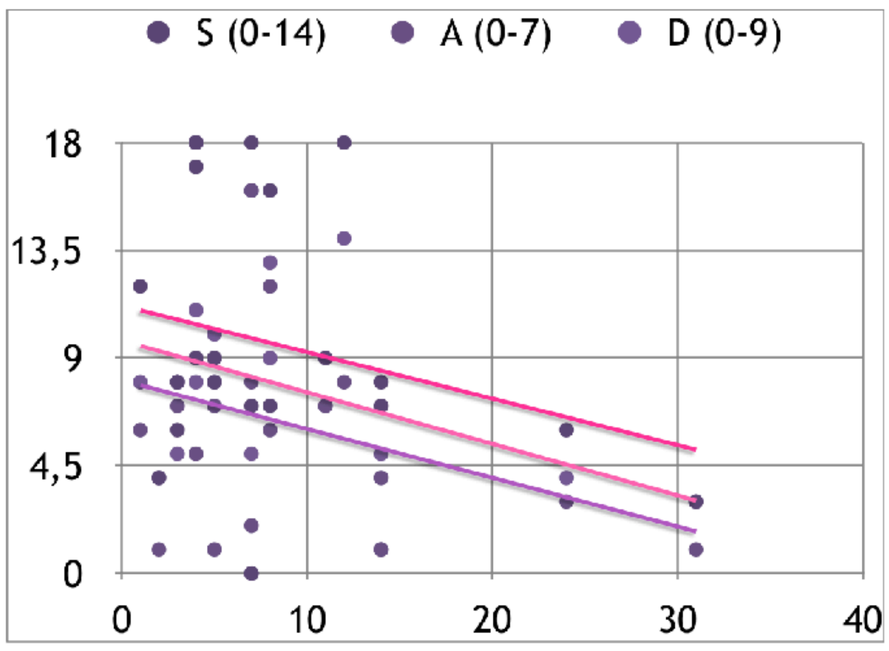
## Results

The mean values of corrected MoCA scores were 24.5 (SD 2.84); DASS-21 Stress: 9.52, Anxiety: 6.29, Depression: 7.71; MSQOL -54: Mental health: 59.29, Physical health 54.3. We found a significant correlation according to Pearson's R ($p<0.01$) between MoCA scores and QoL scores. We found no correlation between MoCA scores and perceived cognitive functioning according to MSQOL-54. One-way ANOVA demonstrated a protective effect on MoCA scores in subjects with ongoing Natalizumab infusional therapy.

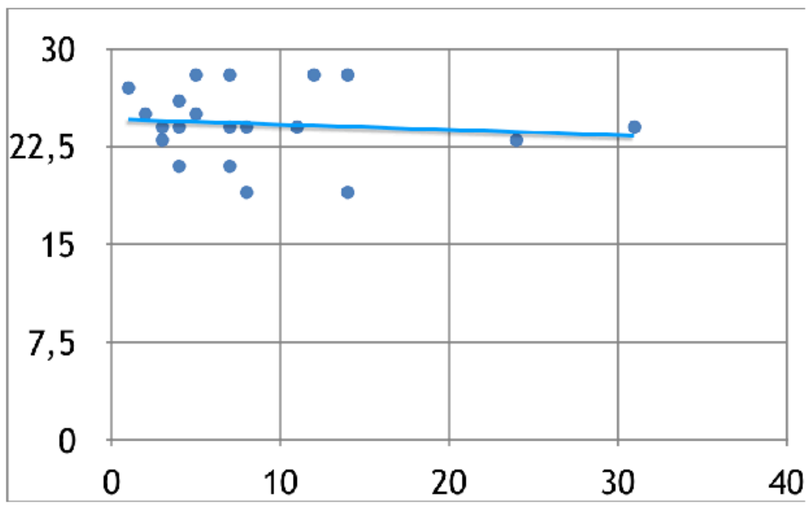


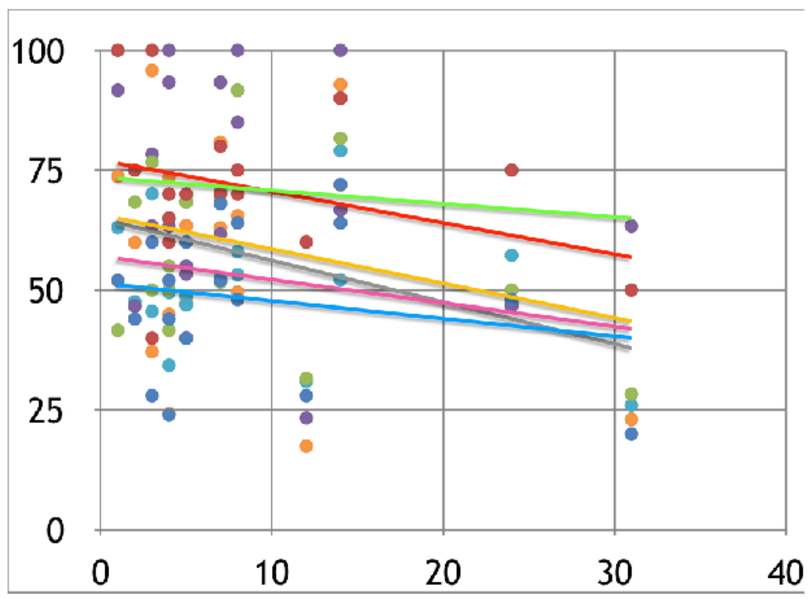

*DAS and disease duration*




*MOCA and disease duration*




*MSQUOL and disease duration*




## Conclusions

Cognitive decline is often underdiagnosed in many cases of multiple sclerosis. The 65% of our outpatients suffers of a misdiagnosed cognitive impairment. The patient perception of his personal cognitive functioning is seriously compromised. Conclusions: specific screening campaigns should be provided in order to minimize the misdiagnosis of cognitive decline. We found a protective effect of specific disease modifying therapies as already reported in literature.

**Bibliografia**

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