EMPLOYMENT STATUS OF PEOPLE WITH MULTIPLE SCLEROSIS IN ARGENTINA

S. Vanotti[1,2], Eizaguirre M.B. [1,2], N. Cabral[2], C. Yastremiz[2], B. Silva[1,2], M. L. Saladino[1], O. Garcea[2], F. Cáceres[1]

1. INEBA – Neurociencies Institute of Buenos Aires, Argentina

2. Multiple Sclerosis Clinic, Ramos Mejia Hospital. Centre of Neurology. Buenos Aires University - UBA, Argentina

Background

Several studies evidence that more than half of Multiple Sclerosis (MS) patients lose their jobs. Loss of employment during highly productive ages is associated with significant detrimental consequences to health and quality of life.

Cognitive and clinical symptoms can have significative negative effects on employment status. The identification of these factors will allow mitigating unemployment and improve quality of life of MS patients.

The Buffalo Vocational Monitoring Survey (BVMS) is a tool to characterize work-challenged patients and identify patients for intervention. It is a necessary tool to investigate the difficulties of employment in Argentina.

Objectives

1) To examine the relationship between employment status (no employment, part-time employment, and full-time employment) and clinical and cognitive variables of people with MS

2) To analyze the relationship between work hours and clinical and cognitive variables

3) To investigate the relationship between employment status and Quality of life.

Methods

Table 1. Demographic and clinical data	
	Multiple Sclerosis *n* 61
Mean Age (years)	38.89 ± 10.38
Mean Education (years)	14.18 ± 2.57
Gender	Female: 59 %
Mean disease course (years)	11.64 ± 7.57
EDSS	2.74 ± 2.01
Depression	12.07 ± 9.16
Fatigue	4.33 ± 3.17
Clinical Forms:	
Relapsing-remitting	93.2 %
Secondary progressive	1.7 %
Primary progressive	5.1 %

Outcomes measures

Cognitive outcomes:

- BICAMS comprises the Symbol Digit Modalities Test (SDMT), the California Verbal Learning Test – Second Edition (CVLT II)

- Brief Visuospatial Memory Test – Revised (BVMT-R); 7/24 Visuospatial Scale, PASAT 2"-3" and Verbal fluency.

Clinical variables: EDSS; Beck's Depression Inventory II, Fatigue Scale, & MS International Quality of Life (MusiQol).

Employment: Argentina adaptation of the Buffalo Vocational Monitoring Survey

Of all the variables studied, two factors were obtained: Clinical factor (EDSS, fatigue and depression) with a Cronbach's α 0.400 and cognitive factor (SDMT, CVLT, BVMT-R) with a Cronbach's α 0.765.

Inclusion criteria's

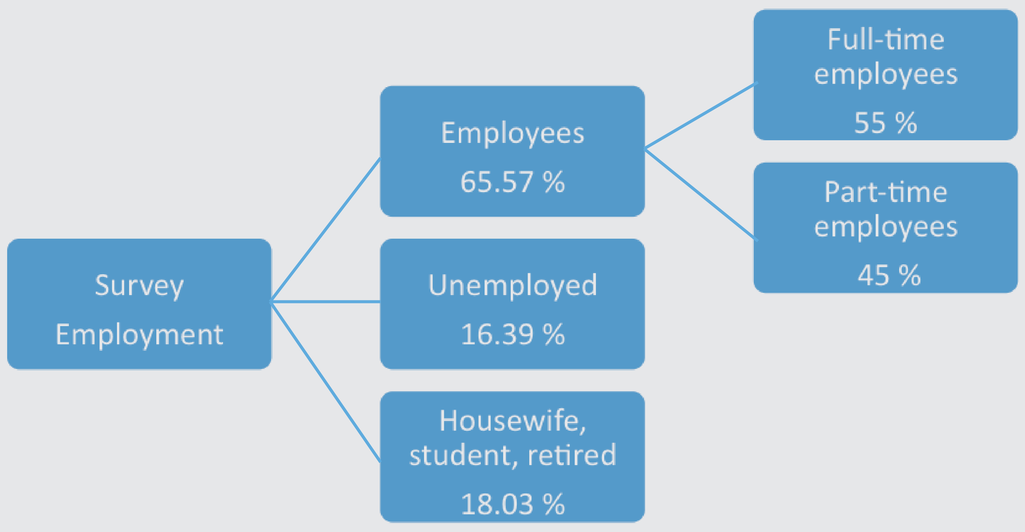
Patients with confirmed diagnosis of MS as defined by McDonald's criteria (relapse-remission (RRMS), and secondarily progressive (PMSS) and primary progressive (PPMS)
≥ 18 years old.
Trained to understand the questions of the labor status questionnaire and respond to the entire procedure

Statistical analysis

Data analysis was performed using the SPSS statistical version 20.0. The following descriptors were used: frequencies, percentages, media and standard deviations. Inferential calculations were performed using Student t,. Alpha for significance was set at .05.

Results

Graphic 1: Percentages of employees and unemployed of the population with MS in Argentina



Relationship between employment status (no employment, part-time employment, and full-time employment) and clinical and cognitive variables of people with MS

SDMT	Pasat 2"	7/24 Visuospatial Scale	Cognitive Factor
p = .044	*p* = .008	*p* = .006	*p* = .033

Relationship between employee's full time and part time and clinical and cognitive variables of people with MS

EDSS	Disease evolution	Fatigue
p = .032	*p* = .033	*p* = .052 *(trend)*

Relationship between work hours and clinical and cognitive variables (more or less than 32 hours per week)

SDMT	Pasat 3"	EDSS	Disease evolution
p = .027	*p* = .009	*p* = .022	*p* = .008

Relationship between employment status and Quality of life	
Activities of daily life	*p* =.015

Conclusion

- Cognitive factors (Attention and Visual Memory) differentiate between employed and non-employed patients.

- Physical disability and disease evolution differentiate between full-time and part-time patients

- Processing speed, together with the physical disability and disease evolution influence the number of hours worked.

References

Benedict, R.H.B, Rodgers, J.D., Emmert, N., Kininger, R. & Weinstock-Guttman, B. (2014). Negative work events and accommodations in employed Multiple Sclerosis patients. Multiple Sclerosis Journal, 20,116–120.
Frndak, S.E., Kordovski, V.M., Cookfair, D., Rodgers, J.D., Weinstock-Guttman, D. & Benedict, R.H.B. (2014). Disclosure of disease status among employed multiple sclerosis patients: Association with negative work events and accommodations. Multiple Sclerosis Journal, 21(2), 225– 234
Jongen, P. J., Wesnes, K., van Geel, B., Pop, P., Sanders, E., Schrijver, H., Leo, H., Visser, H., Gilhuis, J., Sinnige, L.G., Brands, A.M. & the COGNISEC study group (2014). Relationship between working hours and power of attention, memory, fatigue, depression and self-efficacy one year after diagnosis of clinically isolated syndrome and relapsing remitting multiple sclerosis. PLoS ONE, 9(5).

The authors have nothing to declare.

Correspondence to the author: svanotti@ineba.net