

INTRODUCTION

- The growing complexity of multiple sclerosis (MS) care pathways and therapeutic options needs well-structured and collaborative MS units to achieve high-quality patient outcomes.
- This study’s objective was to evaluate neurologists’ perceptions of the organization and functioning of care within their MS units.

METHODS

Study design and participants

- This was a cross-sectional, observational study conducted in collaboration with the Spanish Society of Neurology (SEN).
- Neurologists who treat MS patients were invited by the SEN to participate in an electronic survey between August and December 2023.
- The survey collected information on demographics, professional background, behavioral traits, and workplace characteristics.
- The study was approved by the ethical review board of Hospital Universitario Clínico San Carlos, Madrid, Spain, and all participants provided written informed consent.

Measurement tool

- The Care Process Self-Assessment Tool (CPSET) was used to measure participants’ perception of the quality of the MS care process.
- The CPSET consists of 29 items scored on a 10-point scale (1 = totally disagree to 10 = totally agree), with higher scores indicating a better perception of the care process.
- The tool is structured in five subscales: patient-focused organization, coordination, collaboration with primary care, communication with patients and family, and follow-up.
- An overall score below the 40th percentile was used to define a perceived need for improvement.

RESULTS

- A total of 116 neurologists participated in the study. The mean age of the participants was 41.9 (Standard deviation [SD] 10.1) years, with 53.4% being male (**Table 1**). Most of the neurologists (94.8%) were based in academic hospitals, with a median of 10.0 (interquartile range 5.0-18.0) years of experience in MS care. A 28.4% (n=33) acknowledged experiencing burnout and 11.2% (n=13) reported a sick leave in the last year.
- The mean overall CPSET score was 6.2 (1.5). Notably, 39.7% of the neurologists (n=46) perceived the MS care in their units as suboptimal.
- The subscale analysis identified collaboration with primary care (mean score: 4.9 [2.0]) and patient follow-up (mean score: 5.8 [1.8]) as the most critical areas for improvement (**Table 1**).
- A significant negative correlation was found between lower CPSET scores (indicating poorer care organization) and a higher prevalence of burnout (r= -0.20, 95% CI: -0.37,-0.01; p=0.035).

CONFLICTS OF INTEREST

JMG-D received honoraria as speaker, advisor and researcher from Almirall, Bristol Myers Squibb, Biogen, Janssen, Merck, Novartis, Roche, Teva, and Sanofi. GS received consulting fees from Roche Farma Spain and is supported by the University of Toronto Scientific Merit award. JEM-L received honoraria as a consultant, chairman and lecturer in meetings and participated in clinical trials and other research projects promoted by Alexion, Biogen, Bristol Myers Squibb, Janssen, Merck, Novartis, Roche, and Sanofi. EM reported receiving research grants, travel support, or honoraria for speaking engagements from Almirall, Merck, Roche, Sanofi, Bristol Myers Squibbb, Biogen, Janssen, and Novartis. LL received honoraria for participating in advisory boards and scientific and educational activities from Almirall, Bayer, Biogen, Bristol Myers Squibb, Sanofi, Merck, Novartis, UCB, Roche, and Teva. VM-L received consulting and speaking fees from Almirall, Biogen, Genzyme, Janssen, Merck, Novartis, Roche, Terumo, Sanofi, Teva, and Bristol Myers Squibb. LQ received speaker honoraria from Merck, Sanofi, Roche, Biogen, Grifols and CSL Behring; provided expert testimony for Grifols, Johnson & Johnson, Annexon Pharmaceuticals, Sanofi, Novartis, Takeda, and CSL-Behring; and received research funds from Roche, UCB, and Grifols. EA received speaking honoraria from Roche, Novartis, Merck, Sanofi, and Biogen. SM-Y received honoraria for participating on advisory boards and for collaborations as consultant and scientific communications; they also received research support as well as funding for travel and congress expenses from Roche, Biogen Idec, Novartis, TEVA, Merck, Genzyme, Sanofi, Bayer, Almirall, and Bristol Myers Squibb. LMV reported receiving research grants and personal fees from Merck, Roche,

CONCLUSION

- **A considerable number of neurologists (≈40%) feel their MS care units are not optimally structured to deliver patient-centered care.**
- **The most significant deficits in care organization are perceived in primary care collaboration and patient follow-up.**
- **There is a clear association between the poorer perceived organization of care and a higher prevalence of occupational burnout.**
- **Enhancing care coordination and follow-up may offer a dual benefit: improving care delivery for patients with MS while simultaneously mitigating the risk of burnout for treating clinicians.**

Table 1. Demographic, professional, and behavioral characteristics of participants

| | N=116 |
|---|------------------|
| Age, years, mean (SD) | 41.9 (10.1) |
| Sex, male, n (%) | 62 (53.4) |
| Professional experience, years, median (IQR) | 14.0 (8.0-23.0) |
| Caring for MS, years, median (IQR) | 10.0 (5.0-18.0) |
| Type of hospital, academic, n (%) | 110 (94.8) |
| Number of MS patients/week, median (IQR) | 16.0 (10.0-25.0) |
| Co-author of peer-reviewed manuscripts, n (%) | 64 (55.2) |
| Investigator in MS clinical trials, n (%) | 63 (54.3) |
| CPSET score, mean (SD) | 6.2 (1.5) |
| Patient-focused organization | 6.7 (1.9) |
| Coordination of care | 7.1 (1.4) |
| Communication with patients and family | 6.4 (1.8) |
| Collaboration with primary care | 4.9 (2.0) |
| Follow-up of care | 5.8 (1.8) |
| EBPAS score, mean (SD) | 2.8 (0.4) |
| JSE-HP score, mean (SD) | 107.7 (12.2) |
| RIS-10 score, mean (SD) | 2.1 (0.8) |
| Burnout*, n (%) | 33 (28.4) |
| Sick leave in the last year, n (%) | 13 (11.2) |

CPSET: Care Process Self-Evaluation Tool; EBPAS: Evidence Based Practice Attitude Scale; IQR: Interquartile range; JSE-HP: Jefferson Scale of Empathy-Health Professionals; MS: Multiple sclerosis; RIS-10: Regret Intensity Scale; SD: Standard deviation. *Physician Work Life Study single-item, cutoff score ≥3.

Sanofi, Bristol Myers Squibb, Biogen, and Novartis. ABC received courses and honoraria for her participation as speaker/meeting moderator/symposia organizer from Alter, Almirall, Bayer, Bial, Biogen, Bristol Myers Squibb, Lilly, Merck, Mylan, Novartis, Roche, Sanofi-Genzyme, Teva, and UCB; and support to attend scientific meetings from Biogen, Bial, Merck-Serono, Novartis, Roche, Sanofi, and Teva. RG-B, EG-A, NM, and JM are employees of Roche Farma Spain.

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