

A real-world study characterizing symptoms and impacts of fatigue in US adults with relapsing multiple sclerosis using a novel disease specific scale

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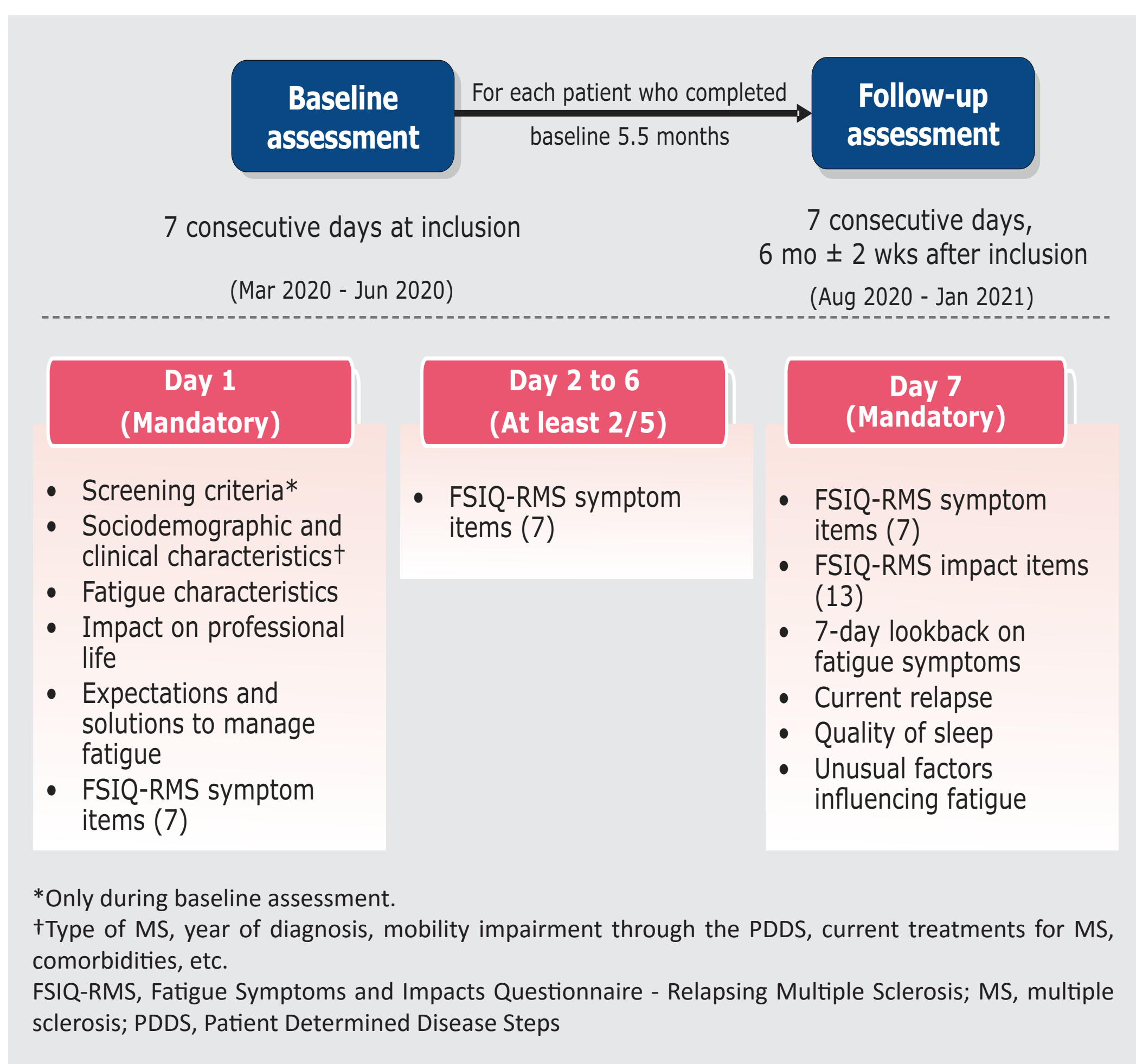
BACKGROUND

- Fatigue is among the most frequent and disabling symptoms in patients with relapsing multiple sclerosis (RMS) and a main cause of impaired health-related quality of life.¹
- Fatigue is defined by subjective experience and measured via patient reported outcome (PRO) instruments.²
- However, previously available PROs that assess MS-related fatigue do not meet instrument development and psychometric property requirements based on current guidelines.³
- PRO tools that are MS-specific can improve understanding of MS fatigue and its impact, improving its clinical management.
- Fatigue Symptoms and Impacts Questionnaire - Relapsing Multiple Sclerosis (FSIQ-RMS), a novel MS-specific PRO instrument, was developed to assess both fatigue in patients with RMS and its impacts on physical activity, cognitive and emotional function, and coping mechanisms.²
- The study was aimed at measuring MS fatigue symptoms and their impact on daily life in a real-world population using a self-administered online questionnaire including the RMS-specific FSIQ-RMS.

METHODS

Design: An ongoing, non-interventional, prospective, longitudinal study

- Adult (18–55 years), ambulatory (PDDS <6) RMS patients from the United States were recruited via an online questionnaire.
- The 20-item FSIQ-RMS addresses MS fatigue, rated for severity based on the mean daily ratings over 7 days, and the corresponding impacts of fatigue on 3 subdomains: physical, cognitive/emotional, and coping.
- The FSIQ-RMS domain scores range from 0-100 (higher score indicates greater severity).
- Self-reported data were collected via an online patient platform (Carenity).



- Baseline assessment data of 200 RMS patients are presented

RESULTS

Patient and fatigue characteristics

Characteristic	N = 200
Female, n (%)	177 (88.5)
Age (years)	43.4 (7.6)
Age at diagnosis of MS (years)	32.8 (8.7)
RMS type, n (%)	
RRMS	193 (96.5)
SPMS	7 (3.5)

Data are expressed as mean (SD), unless otherwise specified

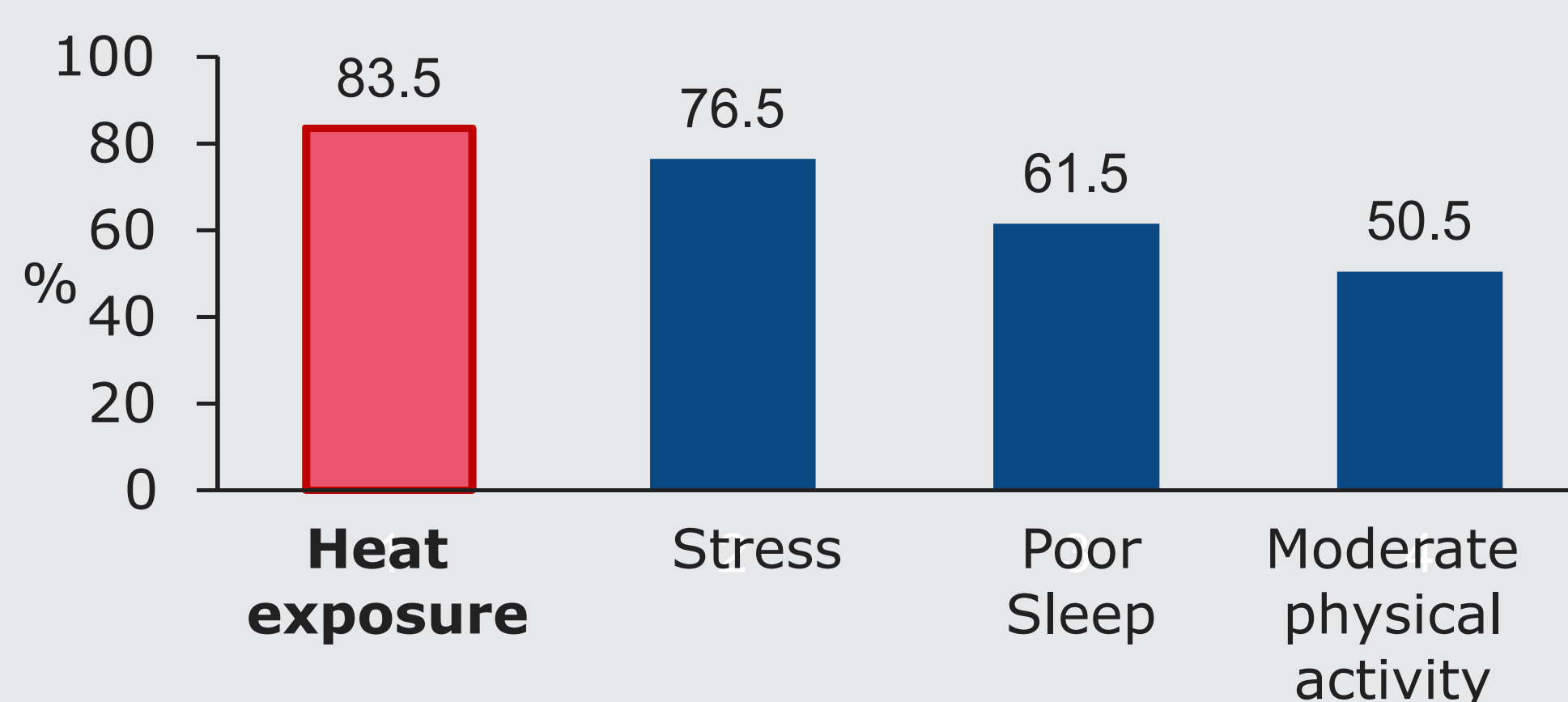
Time of onset of fatigue, n (%)	N = 200
Before MS diagnosis	110 (55.3)
After MS diagnosis	44 (22.0)
Don't remember	16 (8.0)
Always experienced fatigue	15 (7.5)
After a relapse	11 (5.5)
After diagnosis of another condition	2 (1.0)
Other (no fatigue)	2 (1.0)

MS, multiple sclerosis; RMS, relapsing MS; RRMS, relapsing - remitting MS; SD, standard deviation; SPMS, secondary progressive MS

Experience and intensity of fatigue on a daily basis

- 60% some days are worse than others
- 17% can be more intense during long periods
- 8% intensity does not fluctuate from day to day

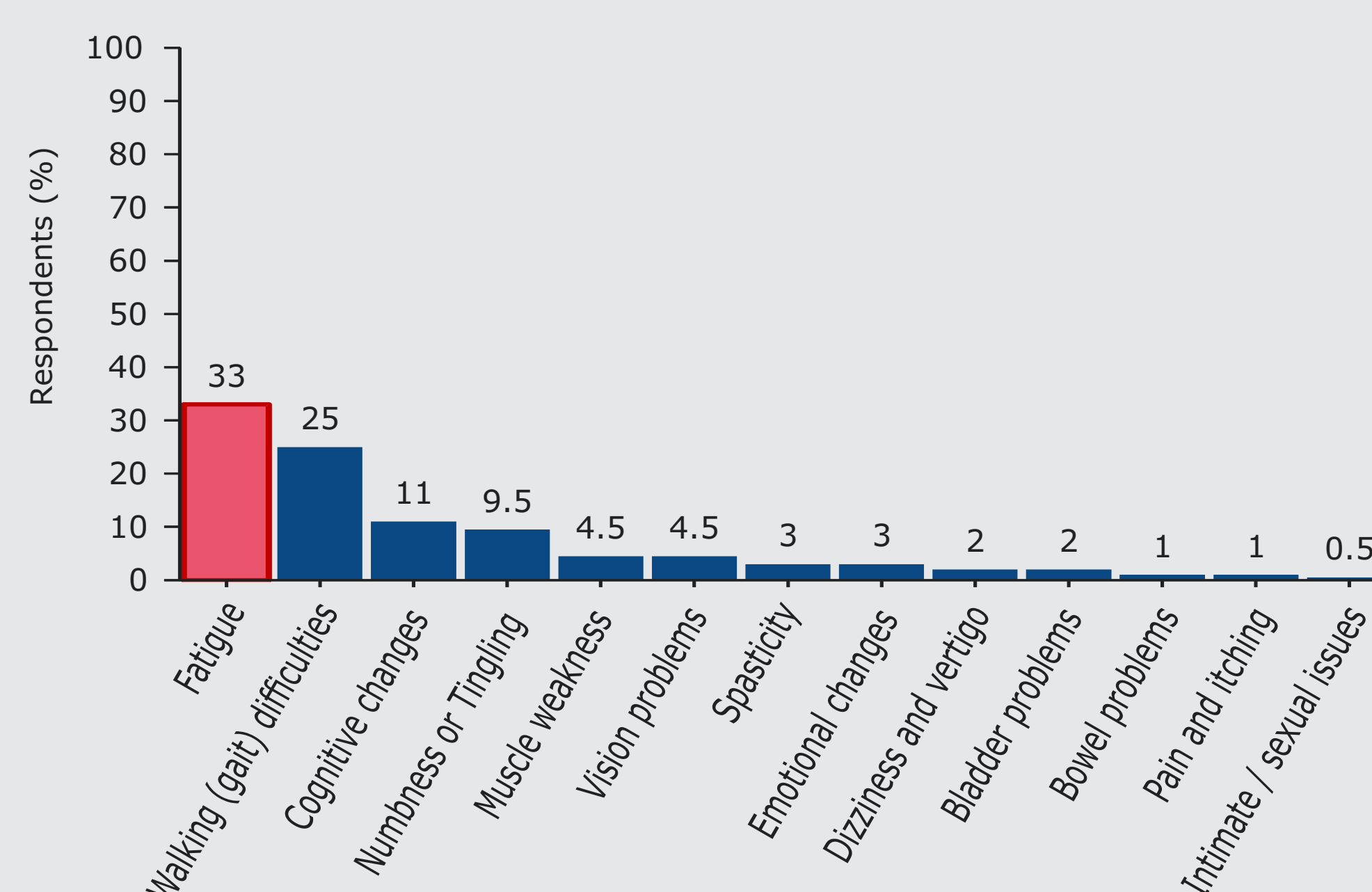
Most frequent triggering or worsening factors for fatigue



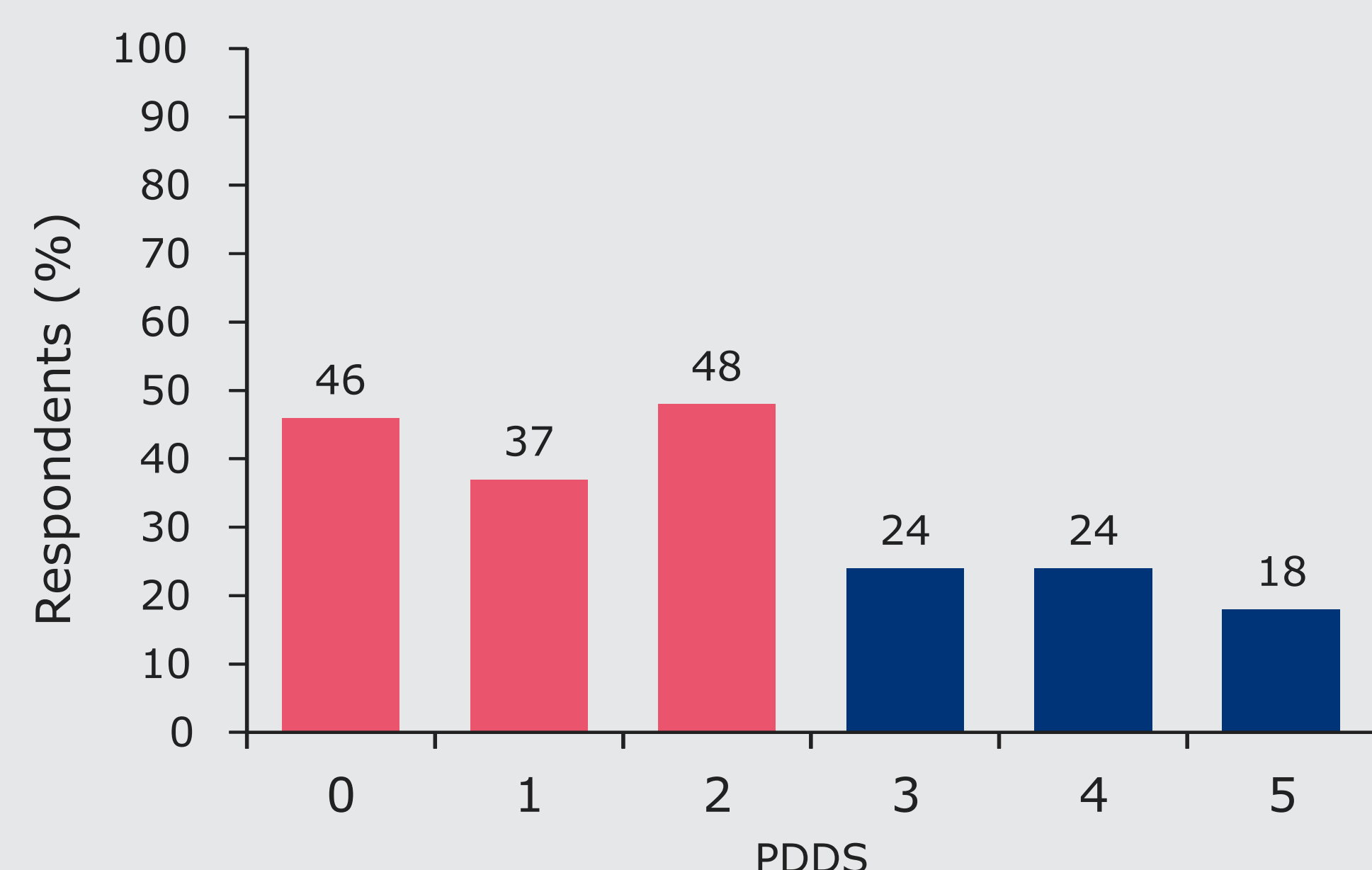
- A majority of patients experienced fatigue daily and before MS diagnosis
- Heat exposure (82%) was the most common triggering factor for fatigue

Impact of MS-related symptoms on daily functioning

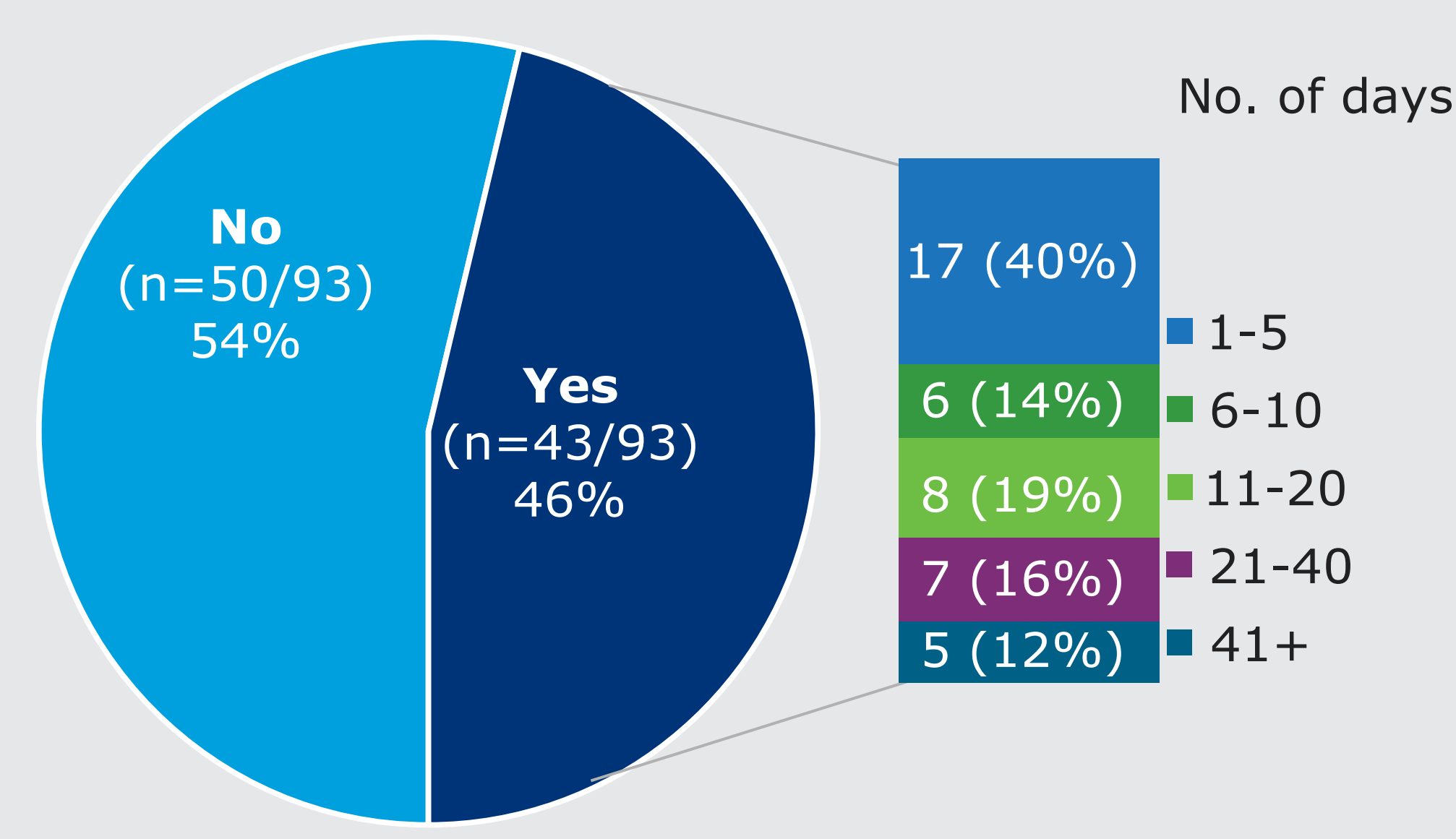
The most impactful MS-related symptoms on daily functioning



Fatigue as the most impactful MS-related symptom by disability status

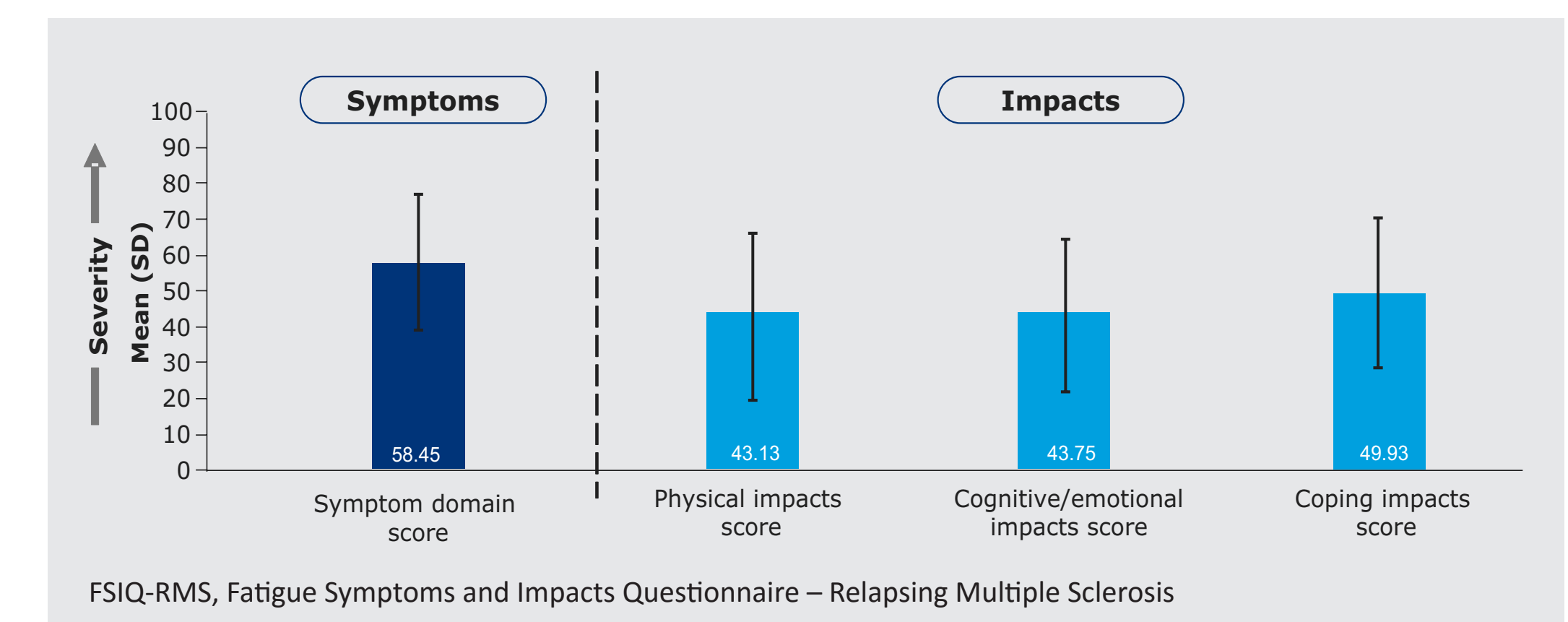


Time taken off from work due to fatigue within the last one year



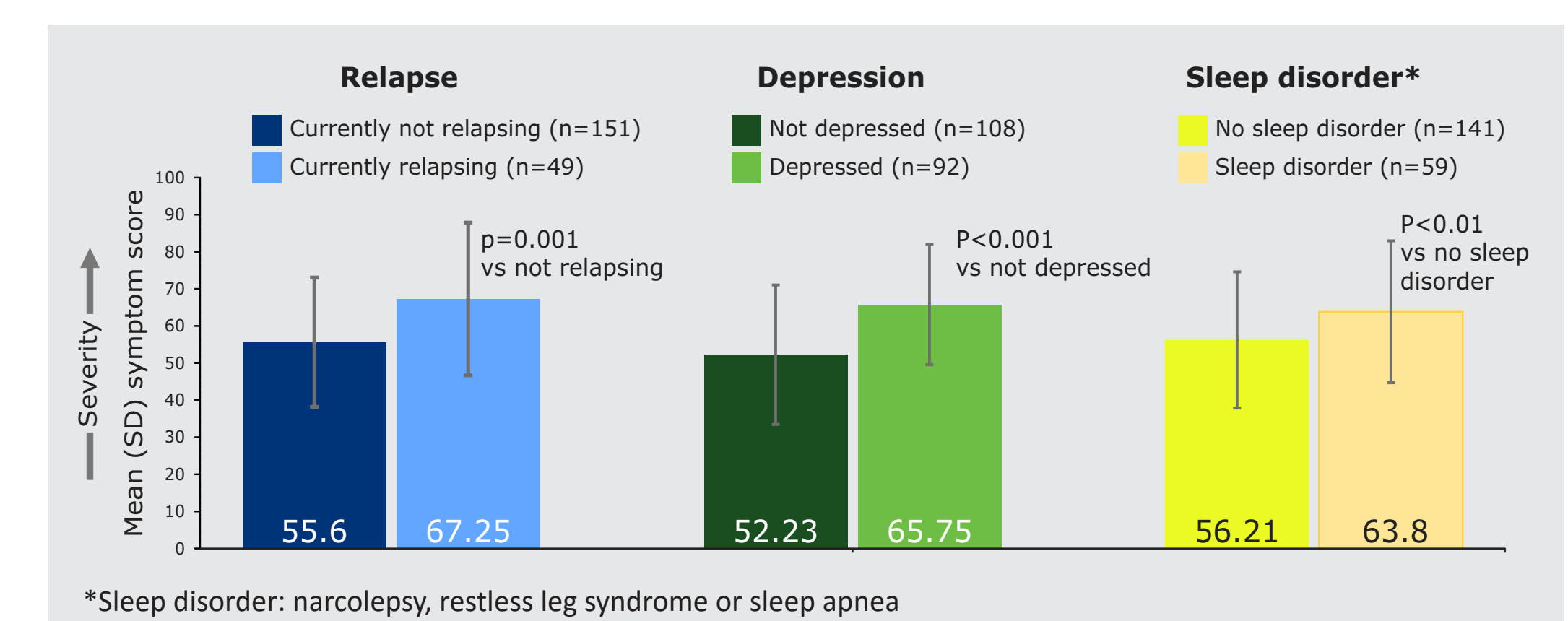
- Fatigue was rated as the most impactful symptom on daily functioning, followed by walking difficulties
- Patients with lower disability (PDDS 0-2) tended to rate fatigue as the most impactful symptom on daily functioning
- Fatigue led to work absence in nearly half of all patients (mean loss 1 to 5 days)

Baseline FSIQ-RMS symptom and impact domain scores (Days 1-7)



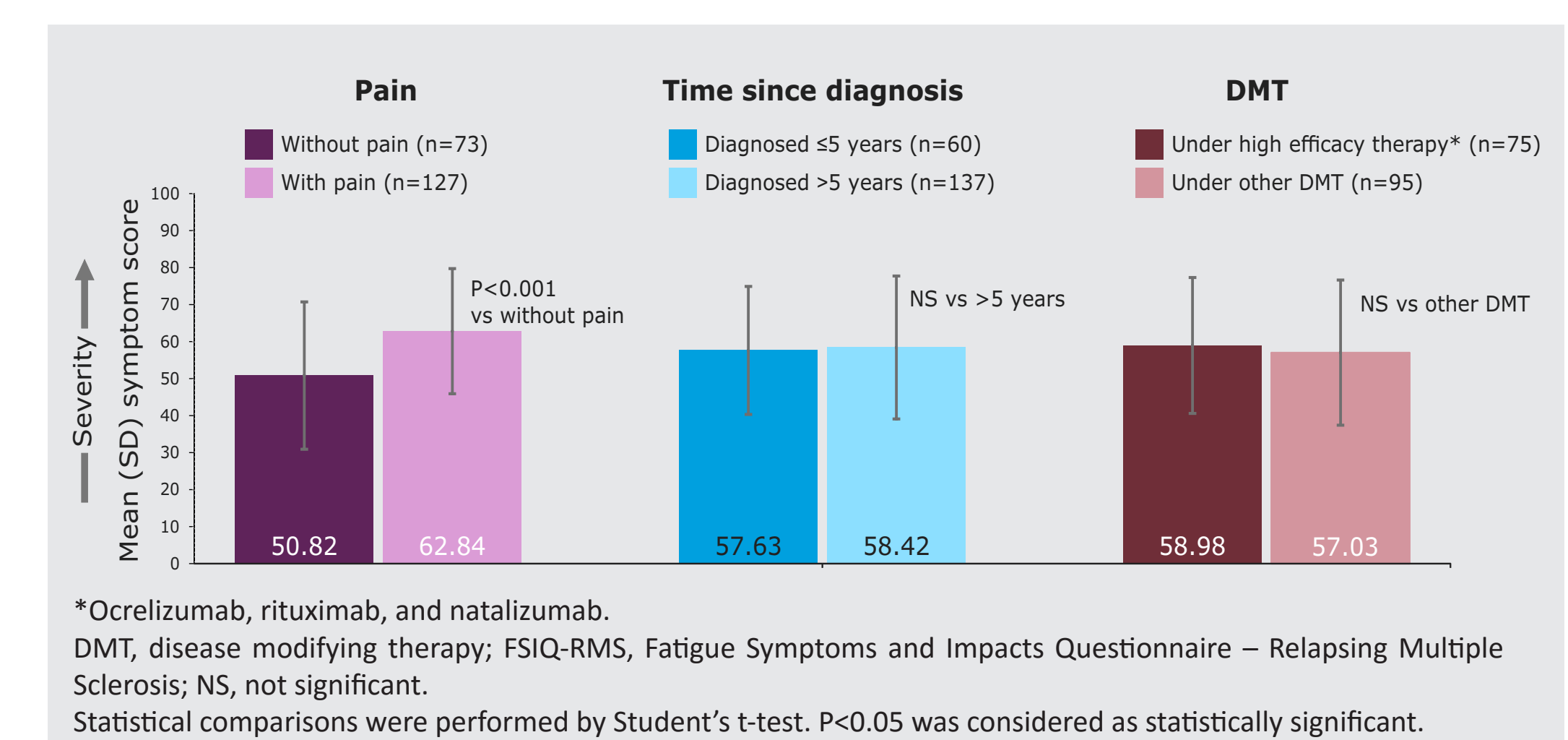
- The FSIQ-RMS captured high levels of fatigue and associated impacts at baseline across subdomains (physical, cognitive/emotional, and coping)

FSIQ-RMS - Symptoms scores by subgroups



- Fatigue levels were significantly higher in patients with relapse, depression, and/or sleep disorder

FSIQ-RMS - Symptoms scores by subgroups



- Fatigue levels were significantly higher in patients with pain
- Fatigue severity did not vary across disease duration or DMT category

CONCLUSIONS

- The MS specific FSIQ-RMS characterized the real-world impact of MS fatigue.
- MS fatigue occurs daily, and influences day to day functioning for most with RMS.
- Fatigue increases with symptom exacerbation, depression, sleep disorders and pain.
- The FSIQ-RMS is a novel MS-specific assessment that can advance the understanding and management of fatigue.

Reference

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Disclosures

Marion Azoulay, Tiphaine Lévy-Heidmann and Valentin Morisseau are employees of Carenity, France. Lindsey Lair and Carol Jamieson are employees of the Janssen Pharmaceutical Companies and own(ed) stock in Johnson & Johnson.

Leigh E. Charvet is a former employee of Johnson & Johnson and owns stock.

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