

Table S1. Descriptive statistics of the CLAMS and independent variables entered into the regression analysis

Variable	Patient-reported outcome measure (PROM) and scoring method	Results	
Language impairment	Binary question: Since your MS diagnosis, have you experienced any language difficulties? 1 = Yes, 0 = No n = 201	Yes, n (%)	150 (74.6)
		No, n (%)	51 (25.4)
	CLAMS: scored 1-4, with higher scores indicative of greater levels of impairment	Median	23.0
		Interquartile range	18.0 – 28.0
Language impairment and quality of life	Binary question: Does a language difficulty affect your quality of life? 1 = Yes, 0 = No n = 201	Yes, n (%)	57 (28.4)
		No, n (%)	144 (71.6)
Speech and voice impairment	SMS: scored 1-4, with higher scores indicative of greater levels of impairment	Median	10.0
		Interquartile range	8.0 – 13.0
Level of speech use	The Levels of Speech Usage rating scale: scored 1-5, with higher scores indicative of higher speech demands	Median	3.0
		Interquartile range	2.0 – 3.0
Cognitive impairment	PDQ: scored 0-4, with higher scores indicative of greater levels of impairment	Median	10.0
		Interquartile range	7.0 – 13.0
Vision impairment	Binary question: Do you currently have any problems with your vision? 1 = Yes, 0 = No n = 201	Yes, n (%)	101 (50.2)
		No, n (%)	100 (49.8)
Fatigue	SF-36 – Energy/fatigue items: scored 0-100, with higher scores indicative of a more favorable health state	Median	30.0
		Interquartile range	15.0 – 50.0
Pain	SF-36 – Pain items: scored 0-100, with higher scores indicative of a more favorable health state	Median	57.5
		Interquartile range	43.75 – 77.5
Role limitations due to physical health	SF-36 – Role limitations due to physical health: scored 0-100, with higher scores indicative of a more favorable health state	Median	0.0
		Interquartile range	0.0 – 50.0
Role limitations due to emotional health	SF-36 – role limitations due to emotional health items: scored 0-100, with higher scores indicating a more favorable health state	Median	33.3
		Interquartile range	0.0 – 100.0
Emotional wellbeing	SF-36 – Emotional well-being items: scored 0-100, with higher scores indicative of a more favorable health state	Median	64.0
		Interquartile range	48.0 – 80.0
General health	SF-36 – General health items: scored 0-100, with higher scores indicative of a more favorable health state	Median	40.0
		Interquartile range	25.0 – 55.0
Quality of life	Single Likert scale item ranging from 0 = worst possible quality of life to 10 = best possible quality of life	Median	7.0
		Interquartile range	5.0 – 8.0
Close friends	SSNS – Friends items: scored 0-100, with higher scores indicative of more close friends and greater frequency of contact	Median	43.3
		Interquartile range	27.0 – 56.4
Group membership and participation	SSNS – Groups items: scored 0-100, with higher scores indicative of membership of more groups and greater levels of participation in these groups	Median	33.0
		Interquartile range	0.0 – 66.5
Satisfaction with social networks	SSNS – Satisfaction items: scored 0-100, with higher scores indicative of greater levels of satisfaction with social networks and lower levels of loneliness	Median	72.5
		Interquartile range	55.0 – 83.3

Social functioning	SF-36 – Social functioning items: scored 0-100, with higher scores indicative of a more favorable health state	Mean (standard deviation)	29.4 (15.7)
		Range	50 – 52.5
	SSNS – Sum score of all questionnaire items: scored 0-100, with higher scores indicative of stronger social networks	Median	50.8
		Interquartile range	42.1 – 61.9
Multiple sclerosis type	Relapsing-remitting	n (%)	157 (78.1)
	Chronic progressive	n (%)	44 (21.9)
Age		Median	48.0
		Interquartile range	37.0 – 57.0

Note: Data from one of the 202 participants were removed in the regression analysis stage and are not reported in this table. Abbreviations: CLAMS, Communication and Language Assessment questionnaire for persons with Multiple Sclerosis; SMS, Speech pathology-specific questionnaire for persons with Multiple Sclerosis; PDQ, Perceived Deficits Questionnaire; SF-36, 36-item Short Form Health Survey; SSNS, Stroke Social Network Scale.

Table S2. Bivariate correlations between the dependent variable of score on CLAMS and all potential independent variables

Variable	Correlation coefficient	P value (n = 201)
1. Language impairment – binary	0.480	<.001
2. Language impairment and quality of life	0.421	<.001
3. Speech and voice impairment	0.673	<.001
4. Level of speech use	-0.281	<.001
5. Cognitive impairment	0.776	<.001
6. Fatigue	-0.476	<.001
7. Pain	-0.400	<.001
8. Role limitations due to physical health	-0.314	<.001
9. Role limitations due to emotional health	-0.306	<.001
10. Emotional well-being	-0.443	<.001
11. General health	-0.348	<.001
12. Quality of life	-0.342	<.001
13. Group membership and participation	-0.313	<.001
14. *Social functioning SF-36	-0.361	<.001
15. Social functioning SSNS	-0.230	.001
16. Satisfaction with social networks	-0.221	.002
17. Vision impairment	0.209	.003
18. Close friends	-0.188	.008
19. MS type	-0.173	.014
20. Age	-0.168	.017
21. Physical functioning	-0.113	.109
22. Age at diagnosis	-0.111	.118
23. Disease duration	-0.109	.124
24. Country of residence	-0.108	.126
25. Hearing impairment	0.103	.147
26. History of childhood communication difficulties	0.082	.248
27. Close relatives	-0.060	.322
28. Children	0.60	.400
29. Number of languages spoken	-0.059	.404
30. Sex	0.020	.780
31. Education	0.010	.893
32. Currently employed	0.004	.956

Note: Single outlier case removed. Asterisk (*) in variable column indicates Pearson correlation; all other are Spearman correlation.

Abbreviation: CLAMS, Communication and Language Assessment questionnaire for persons with Multiple Sclerosis.