

Figure S1. Longitudinal model of health promotion and health for people with multiple sclerosis

HPLP II, Health-Promoting Lifestyle Profile II; SF-36, 36-item Short Form Health Survey.

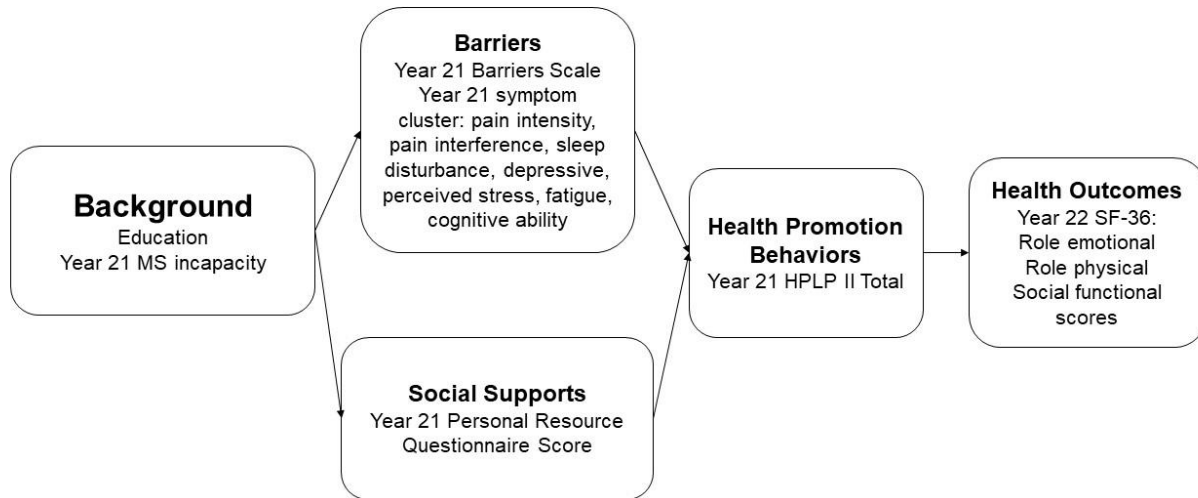


Table S1. Sample description of those with progressive and nonprogressive MS (N = 189)

Characteristics	Categories	MS courses		Both Courses N (%)
		Progressive (n ₁ = 72) n ₁ (%)	Nonprogressive (n ₂ = 117) n ₂ (%)	
Gender, n (%) ^{b*}	Male	13 (18.1)	9 (7.7)	22 (11.6)
	Female	59 (81.9)	108 (92.3)	167 (88.4)
Age, n (%)	<60 years	11 (15.3)	21 (17.9)	32 (16.9)
	60-65 years	12 (16.6)	27 (23.1)	39 (20.7)
	>65 years	49 (68.1)	69 (59)	118 (62.4)
Education, n (%) (n = 183)	< High school	7 (9.8)	14 (12.5)	21 (11.5)
	High school graduate	18 (25.4)	35 (31.3)	53 (29.0)
	Associate degree	9 (12.7)	16 (14.3)	25 (13.7)
	Bachelor's degree	24 (33.8)	30 (26.8)	54 (29.5)
	Graduate degree	13 (18.3)	17 (15.2)	30 (16.4)
Race/ethnicity, n (%) (n = 183)	Non-Hispanic White	68 (95.8)	105 (93.8)	173 (94.5)
	Others	3 (4.2)	7 (6.3)	10 (5.5)
Marital status, n (%) (n = 186)	Married/significant others	49 (70.0)	80 (68.9)	129 (69.4)
	Unmarried	21 (30.0)	36 (31.0)	57 (30.6)
Employment status, n (%)	Retired	33 (45.8)	59 (50.4)	92 (48.7)
	Full-time	3 (4.2)	14 (12.0)	17 (9.0)
	Part-time	5 (6.9)	10 (8.5)	15 (7.9)
	Homemaker	9 (12.5)	17 (14.6)	26 (13.8)
	Unemployed-disability	20 (27.8)	15 (12.8)	35 (18.5)
	Unemployed-age	1 (1.4)	2 (1.7)	3 (1.6)
	Laid off	1 (1.4)	-	1 (0.5)
MS course, n (%)	Benign sensory	-	24 (20.5)	24 (12.7)
	Relapsing-remitting	-	93 (79.5)	93 (49.2)
	Primary progressive	19 (26.4)	-	19 (10.1)
	Secondary progressive	48 (66.7)	-	48 (25.4)
	Progressive relapsing	5 (6.9)	-	5 (2.6)
Disease-modifying prescription, n (%)	No	35 (48.6)	64 (54.7)	99 (52.4)
	Yes	37 (51.4)	53 (45.3)	90 (47.6)
Age in years in Year 22, Mean (SD)		67.9 (8.3)	67.3 (8.9)	67.5 (8.7)
Years of education in Year 7, Mean (SD)		14.9 (2.7)	14.9 (2.4)	14.9 (2.5)
Year 22 Economic Adequacy Scale total, Mean (SD)		3.4 (0.6)	3.4 (0.7)	3.4 (0.7)
Years since diagnosis in Year 22, Mean (SD) (n = 183)		32.6 (7.8)	30.2 (6.1)	31.1 (6.9) ^{a*}
Year 22 EDSS Total, Mean (SD)		6.8 (0.9)	4.9 (1.5)	5.6 (1.6) ^{a**}
Year 22 Functional Comorbidity Index, Mean (SD) (n = 183)		3.6 (2.6)	3.9 (2.1)	3.8 (2.3)

Note: Percentage totals may not add to 100% due to rounding.

Abbreviations: EDSS, Expanded Disability Status Scale; MS, multiple sclerosis.

P* < .05; *P* < .001.

^a *t*-test, ^b Chi square.

Table S2. *t*-test comparisons of HPLP II and SF-36 subscale and total scores between MS course groups

Variables	Progressive MS (<i>n</i> ₁ = 72) Mean (SD)	Nonprogressive (<i>n</i> ₂ = 117) Mean (SD)	<i>t</i>	<i>P</i>	95% Confidence Interval (lower, upper)
Year 21 (2017) HPLP II Health responsibility	24.2 (5.5)	25.9 (5.0) ^a	2.13	.04*	(.12, 3.21)
Year 21 (2017) HPLP II Physical activity	15.7 (5.8) ^b	18.8 (6.0) ^c	3.50	.00***	(1.36, 4.87)
Year 21 (2017) HPLP II Nutrition	26.0 (4.9) ^b	25.6 (4.9) ^a	-.51	.61	(-1.84, 1.08)
Year 21 (2017) HPLP II Spiritual growth	28.2 (5.1)	29.8 (5.2) ^a	2.08	.04*	(.08, 3.16)
Year 21 (2017) HPLP II Interpersonal relations	29.4 (4.6)	29.9 (4.7) ^c	.70	.48	(-.89, 1.88)
Year 21 (2017) HPLP II Stress management	24.4 (4.0)	24.4 (4.2) ^a	-.03	.98	(-1.25, 1.21)
Year 21 (2017) HPLP II Total	148.0 (21.3) ^b	154.5 (22.3) ^d	1.97	.05	(-.03, 13.07)
Year 22 (2018) SF-36 Role Physical limitations transformed score	47.0 (30.1)	61.8 (27.7)	3.42	.00***	(6.23, 23.17)
Year 22 (2018) SF-36 Role Emotional limitations transformed score	70.7 (28.6)	74.6 (27.6)	.92	.36	(-4.41, 12.12)
Year 22 (2018) SF-36 Social functioning transformed score	63.0 (31.5)	75.3 (24.9)	2.82	.01**	(3.66, 20.94)

Abbreviations: HPLP II, Health-Promoting Lifestyle Profile II; MS, multiple sclerosis; SF-36, 36-item Short Form Health Survey.

P* < .05; *P* < .01; ****P* < .001.

^a*n* = 116; ^b*n* = 71; ^c*n* = 115; ^d*n* = 114.

Table S3. Correlations between independent variables and SF-36 subscale scores by MS course groups ($n = 165$)

Independent Variable	Year 22 SF-36 Subscale Score (transformed; dependent variable)					
	Role Physical		Role Emotional		Social Functioning	
	Progressive MS ($n_1 = 64$)	Nonprogressive MS ($n_2 = 101$)	Progressive MS ($n_1 = 64$)	Nonprogressive MS ($n_2 = 101$)	Progressive MS ($n_1 = 64$)	Nonprogressive MS ($n_2 = 101$)
Year 22 (2018) age	.03	.03	-.11	.11	.10	.15
Years since diagnosis	-.01	-.02	-.18	.05	-.01	.10
Years of education	.22*	.04	.30**	-.01	.20	-.02
Year 21 (2017) MS incapacity	-.45***	-.58***	-.29**	-.43***	-.43***	-.48***
Year 21 (2017) CESD-10	-.29*	-.47***	-.38***	-.45***	-.43***	-.41***
Year 21 (2017) PROMIS cognitive ability	.42***	.56***	.59***	.48***	.43***	.47***
Year 21 (2017) perceived stress	-.23*	-.47***	-.41***	-.41***	-.40***	-.38***
Year 21 (2017) PROMIS pain intensity	-.38**	-.60***	-.24*	-.45***	-.42***	-.44***
Year 21 (2017) PROMIS pain interference	-.24*	-.51***	-.15	-.36***	-.30**	-.34***
Year 21 (2017) PROMIS fatigue	-.43***	-.68***	-.30**	-.58***	-.42***	-.52***
Year 21 (2017) PROMIS sleep	-.22*	-.34***	-.28*	-.31***	-.35**	-.40***
Year 22 (2018) Functional Comorbidity Index	-.09	-.42***	-.24*	-.35***	-.13	-.34***
Year 21 (2017) Barriers total score	-.25*	-.44***	-.33**	-.52***	-.33**	-.58***
Year 21 (2017) Personal resource total score	.30**	.19*	.19	.35***	.42***	.33***
Year 21 (2017) HPLP II total score	.33**	.26**	-.11	.28**	.35**	.31***

Note: Listwise deletion.

Abbreviations: Barriers, Barriers to Health-Promoting Activities for Disabled Persons Scale; CESD-10, Center for Epidemiologic Studies Depression Scale-10; HPLP II, Health-Promoting Lifestyle Profile II; MS, multiple sclerosis; PROMIS, Patient-Reported Outcomes Measurement Information System; SF-36, 36-item Short Form Health Survey.

* $P < .05$; ** $P < .01$; *** $P < .001$.