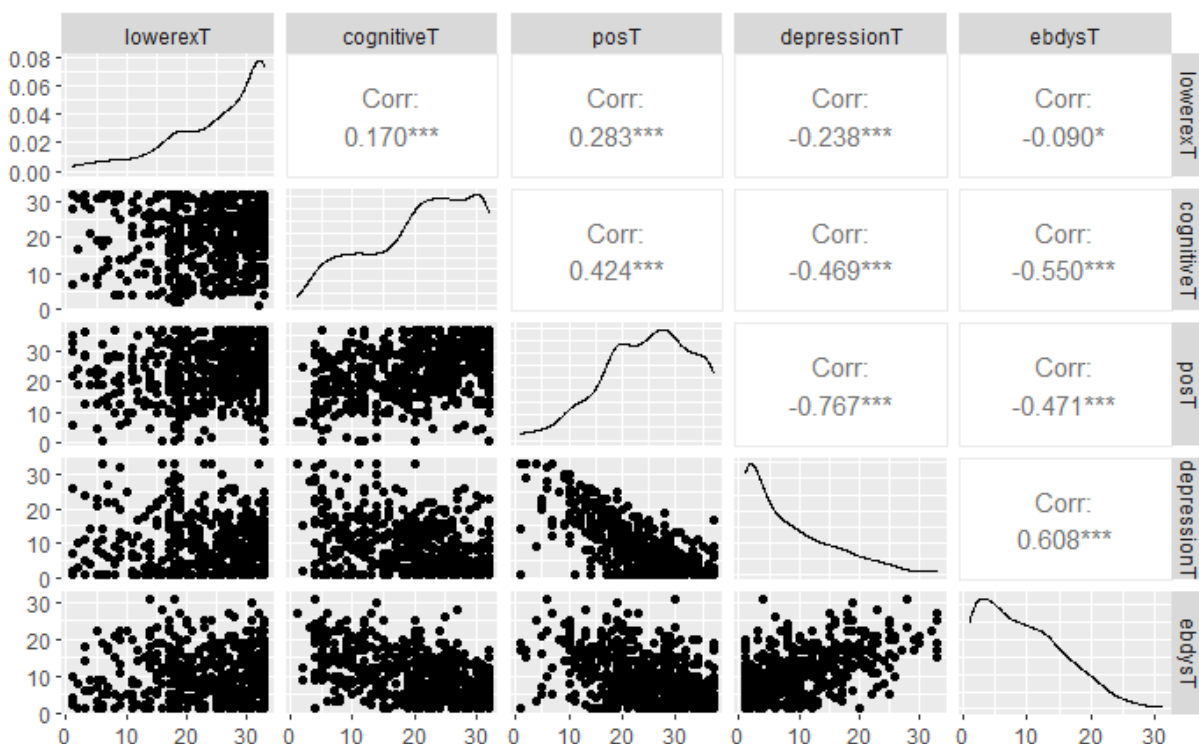


Figure S1. Scatterplot Matrix of Neuro-QOL T-scores, Displaying Pairwise Pearson Correlation Coefficients



cognitiveT, cognitive function T score; depressionT, depression T score; ebdysT, emotional and behavioral dysfunction T score; lowerexT, lower extremity function T score; postT, positive affect T score.

Note: Significance codes: .01 = *; .001 = **; 0 = ***

Table S1. Sex-Stratified Analysis of Engaging in Adequate Counts of Weekly Exercise (≥ 4 sessions)

Predictor		Female OR (95% CI)	P value	Male OR (95% CI)	P value
Age		0.990 (0.971-1.01)	.317	0.954 (0.888-1.02)	.168
Season of survey completion	Winter	Ref	-	Ref	-
	Spring	0.937 (0.513-1.70)	.830	0.920 (0.201-3.96)	.912
	Summer	0.944 (0.475-1.87)	.869	1.50 (0.180-14.6)	.712
	Autumn	0.795 (0.413-1.52)	.489	0.790 (0.103-6.08)	.818
Region of the United States	South	Ref	-	Ref	-
	West	1.65 (0.934-2.94)	.087	0.804 (0.154-3.942)	.789
	Northeast	0.811 (0.464-1.41)	.460	6.35 (0.748-79.2)	.112

	Midwest	0.897 (0.515-1.56)	.699	2.97 (0.622-15.8)	.181
Race	White	Ref	-	Ref	-
	Other	1.91 (0.723-5.42)	.204	3.90 (0.462-48.0)	.239
	Black	0.708 (0.265-1.90)	.487	-	-
BMI	Normal	Ref	-	Ref	-
	Low	0.524 (0.176-1.59)	.245	-	-
	High	1.17 (0.675-2.05)	.577	0.790 (0.209-2.94)	.723
	Very high	0.618 (0.376-1.01)	.056	1.86 (0.267-16.4)	.548
MS subtype	RRMS	Ref	-	Ref	-
	CIS/RIS	1.89 (0.659-6.69)	.272	-	-
	PPMS	1.22 (0.584-2.56)	.603	0.545 (0.119-2.33)	.414
	SPMS	1.62 (0.877-3.05)	.127	3.32 (0.653-20.8)	.167
Neuro-QOL T scores^a	Lower extremity function	1.14 (1.10-1.18)	< .001	1.09 (0.998-1.20)	.0725
	Cognitive function	1.00 (0.974-1.03)	.881	0.940 (0.850-1.03)	.195
	Depression	0.974 (0.944-1.00)	.0954	0.876 (0.789-0.959)	.00675

BMI, body mass index; CIS/RIS, clinically isolated or radiologically isolated syndrome; OR, odds ratio; PPMS, primary progressive multiple sclerosis; RR, relative ratio; RRMS, relapsing-remitting multiple sclerosis; SPMS, secondary progressive multiple sclerosis

^aHigher scores on lower extremity and cognitive function represent better functioning, while higher depression scores represent greater depression symptom severity.

Table S2. BMI-Stratified Analysis of Engaging in Adequate Counts of Weekly Exercise (≥ 4 sessions)

Predictor	Low/ Normal OR (95% CI)	P value	High OR (95% CI)	P value	Very high OR (95% CI)	P value
Age	0.974 (0.946-1.00)	.069	0.992 (0.953-1.03)	.703	1.01 (0.974-1.04)	.640
Male sex	1.65 (0.715-4.07)	.258	0.835 (0.338-2.08)	.696	4.62 (0.955-28.8)	.0714

Season of survey completion	Winter	Ref	-	Ref	-	Ref	-
	Spring	0.875 (0.370-2.03)	.757	2.23 (0.818-6.28)	.121	0.372 (0.096-1.31)	.134
	Summer	0.573 (0.223-1.45)	.240	3.27 (0.843-14.6)	.0989	0.844 (0.188-3.57)	.819
	Autumn	0.982 (0.393-2.43)	.968	1.34 (0.386-4.73)	.647	0.274 (0.065-1.05)	.0652
Region of the United States	South	Ref	-	Ref	-	Ref	-
	West	1.22 (0.534-2.43)	.632	1.77 (0.570-5.68)	.326	1.99 (0.762-5.37)	.165
	Northeast	1.16 (0.487-2.83)	.733	1.46 (0.484-4.45)	.502	0.361 (0.115-1.07)	.0710
	Midwest	0.806 (0.355-1.83)	.605	1.03 (0.312-3.34)	.966	2.11 (0.843-5.45)	.110
Race	White	Ref	-	Ref	-	Ref	-
	Other	0.641 (0.160-2.89)	.539	1.84 (0.395-9.20)	.442	23.2 (3.04-501)	.00808
	Black	-	-	0.546 (0.077-4.98)	.554	0.711 (0.186-2.61)	.60
MS subtype	RRMS	Ref	-	Ref	-	Ref	-
	CIS/RIS	1.32 (0.392-5.58)	.676	-	-	0.713 (0.075-16.0)	.786
	PPMS	1.69 (0.584-5.20)	.341	0.776 (0.241-2.49)	.668	0.849 (0.218-3.24)	.80
	SPMS	1.42 (0.593-3.49)	.439	3.29 (0.939-13.3)	.0757	1.35 (0.444-4.10)	.59
Neuro-QOL T scores^a	Lower extremity function	1.12 (1.06-1.18)	< .001	1.14 (1.08-1.23)	< .001	1.17 (1.10-1.26)	< .001
	Cognitive function	0.986 (0.942-1.03)	.541	0.987 (0.934-1.04)	.639	1.00 (0.954-1.05)	.922
	Depression	0.962 (0.918-1.01)	.104	0.922 (0.865-0.98)	.0101	0.960 (0.909-1.01)	.135

BMI, body mass index; CIS/RIS, clinically isolated or radiologically isolated syndrome; OR, odds ratio; PPMS, primary progressive multiple sclerosis; RR, relative ratio; RRMS, relapsing-remitting multiple sclerosis; SPMS, secondary progressive multiple sclerosis

^aHigher scores on lower extremity and cognitive function represent better functioning, while higher depression scores represent greater depression symptom severity.

Table S3. Analysis of Engaging in Adequate Counts of Weekly Exercise (≥ 4 sessions) Stratified by Lower Limb Functioning T Score Percentile (top 50%; bottom 50%)

Predictor		Bottom 50% of T scores OR (95% CI)	P value	Top 50% of T scores OR (95% CI)	P value
Age		0.986 (0.961-1.01)	.267	0.990 (0.964-1.02)	.472
Male sex		1.43 (0.654-3.40)	.388	1.92 (0.986-3.80)	.0569
Season of survey completion	Winter	Ref	-	Ref	-
	Spring	0.755 (0.331-1.66)	.492	0.892 (0.433-1.84)	.757
	Summer	0.908 (0.360-2.29)	.837	1.13 (0.482-2.67)	.776
	Autumn	0.982 (0.399-2.41)	.969	0.836 (0.379-1.84)	.656
Region of the United States	South	Ref	-	Ref	-
	West	0.881 (0.386-2.05)	.765	1.93 (1.03-3.63)	.0410
	Northeast	1.01 (0.456-2.28)	.978	1.21 (0.610-2.40)	.584
	Midwest	1.03 (0.476-2.23)	.947	1.20 (0.613-2.34)	.592
Race	White	Ref	-	Ref	-
	Other	1.32 (0.314-9.13)	.732	1.60 (0.617-4.29)	.335
	Black	0.916 (0.270-3.73)	.894	0.896 (0.180-3.54)	.881
BMI	Normal	Ref	-	Ref	-
	Low	0.579 (0.135-3.05)	.479	0.499 (0.0849-2.35)	.398
	High	0.942 (0.456-1.98)	.873	0.675 (0.355-1.27)	.225
	Very high	0.615 (0.301-1.26)	.181	0.500 (0.271-0.913)	.0249
MS subtype	RRMS	Ref	-	Ref	-
	CIS/RIS	1.99 (0.634-8.80)	.290	1.98 (0.200-21.2)	.542
	PPMS	0.895 (0.231-4.43)	.879	0.755 (0.380-1.48)	.416
	SPMS	2.12 (0.500-14.7)	.361	1.03 (0.573-1.86)	.914

Neuro-QOL T scores^a	Cognitive Function	1.03 (0.985-1.07) .200	0.978 (0.946-1.01) .191
	Depression	0.932 (0.889-0.977) .00352	0.962 (0.929-0.995) .0268

BMI, body mass index; CIS/RIS, clinically isolated or radiologically isolated syndrome; OR, odds ratio; PPMS, primary progressive multiple sclerosis; RR, relative ratio; RRMS, relapsing-remitting multiple sclerosis; SPMS, secondary progressive multiple sclerosis

^aHigher scores on cognitive function represent better functioning, while higher depression scores represent greater depression symptom severity.