

Table S1. Means and Standard Errors for Tango, Treadmill, and Stretching Groups.

	Tango			Treadmill			Stretching		
	Baseline (n = 39)	Post (n = 39)	Follow-up (n = 36)	Baseline (n = 31)	Post (n = 31)	Follow-up (n = 29)	Baseline (n = 26)	Post (n = 26)	Follow-up (n = 23)
Forward Velocity (cm/sec)	104.53 (3.92)	103.36 (4.21)	105.18 (4.52)	103.28 (4.67)	109.57 (4.65)	110.34 (4.83)	111.21 (3.81)	110.52 (5.02)	114.43 (3.33)
Backward Velocity (cm/sec)	60.80 (3.70)	64.89 (3.72)	67.76 (3.98)	63.45 (4.22)	71.87 (4.83)	74.39 (5.59)	65.17 (4.60)	75.17 (6.69)	71.40 (5.28)
SMWT (meters)	409.02 (20.97)	426.74 (23.21)	423.54 (22.40)	408.51 (19.35)	420.53 (19.74)	427.06 (22.81)	429.33 (18.79)	444.53 (21.43)	441.28 (20.98)
Mini-BESTest	18.90 (0.65)	19.15 (0.69)	19.58 (0.62)	18.26 (0.81)	19.10 (0.78)	18.97 (0.93)	19.46 (0.72)	19.96 (0.76)	19.17 (0.78)
MDS-UPDRS-III	36.92 (1.95)	35.23 (1.92)	34.97 (1.75)	35.39 (2.03)	32.55 (2.01)	32.72 (2.05)	37.88 (1.90)	33.23 (1.77)	36.52 (2.05)
PDQ-39	18.33 (1.89)	18.80 (1.85)	19.20 (1.75)	19.22 (2.71)	17.86 (2.41)	16.85 (2.71)	16.30 (1.86)	16.39 (2.35)	9.33 (1.40)

Post-test is after 12 week intervention; Follow-up is 12 weeks after post-test.

Table S2a. Forward Velocity Analysis of GEE Parameter Estimates/Empirical Standard Error Estimates

Parameter	Estimate	Std Error	95% Confidence Limits		Z	p
Intercept	111.21	3.73	103.89	118.53	29.78	<.0001
Follow-up - Baseline	3.08	2.27	-1.37	7.53	1.35	.18
Post - Baseline	-0.68	2.74	-6.05	4.68	-0.25	.80
Tango - Stretching	-6.68	5.38	-17.22	3.86	-1.24	.21
Treadmill – Stretching	-7.93	5.92	-19.53	3.68	-1.34	.18
Interaction Estimate 1 ^a	-4.10	3.37	-10.71	2.51	-1.22	.22
Interaction Estimate 2 ^b	-0.48	3.39	-7.13	6.17	-0.14	.89
Interaction Estimate 3 ^c	1.43	3.13	-4.70	7.57	0.46	.65
Interaction Estimate 4 ^d	6.98	3.30	0.50	13.45	2.11	.03

Table S2b. Backward Velocity Analysis of GEE Parameter Estimates/Empirical Standard Error Estimates

Parameter	Estimate	Std Error	95% Confidence Limits		Z	p
Intercept	65.17	4.51	56.33	74.00	14.45	<.0001
Follow-up - Baseline	5.13	2.73	-0.22	10.47	1.88	.06
Post - Baseline	10.00	3.54	3.06	16.94	2.83	.005
Tango - Stretching	-4.36	5.80	-15.74	7.01	-0.75	.45
Treadmill – Stretching	-1.72	6.13	-13.73	10.30	-0.28	.78
Interaction Estimate 1 ^a	-0.29	3.67	-7.50	6.91	-0.08	.94
Interaction Estimate 2 ^b	-5.92	4.32	-14.39	2.55	-1.37	.17
Interaction Estimate 3 ^c	4.08	3.69	-3.15	11.30	1.11	.27
Interaction Estimate 4 ^d	-1.58	4.12	-9.66	6.50	-0.38	.70

Table S2c. Six-minute walk test Analysis of GEE Parameter Estimates/Empirical Standard Error Estimates

Parameter	Estimate	Std Error	95% Confidence Limits		Z	p
Intercept	429.33	18.43	393.22	465.45	23.30	<.0001
Follow-up – Baseline	11.23	7.56	-3.59	26.04	1.49	.14
Post – Baseline	15.19	10.02	-4.45	34.83	1.52	.13
Tango - Stretching	-20.32	27.71	-74.63	34.00	-0.73	.46
Treadmill – Stretching	-20.82	26.49	-72.75	31.10	-0.79	.43
Interaction Estimate 1 ^a	-12.94	10.08	-32.70	6.82	-1.28	.20
Interaction Estimate 2 ^b	2.53	12.79	-22.53	27.59	0.20	.84
Interaction Estimate 3 ^c	-5.13	12.28	-29.19	18.94	-0.42	.68
Interaction Estimate 4 ^d	-3.18	11.95	-26.60	20.24	-0.27	.79

Table S2d. Mini-BESTest Analysis of GEE Parameter Estimates/Empirical Standard Error Estimates

Parameter	Estimate	Std Error	95% Confidence Limits		Z	p
Intercept	19.46	0.70	18.09	20.84	27.75	<.0001
Follow-up - Baseline	-0.36	0.48	-1.31	0.59	-0.74	.46
Post - Baseline	0.50	0.50	-0.48	1.48	1.00	.32
Tango - Stretching	-0.56	0.95	-2.43	1.31	-0.59	.55
Treadmill – Stretching	-1.20	1.06	-3.28	0.87	-1.14	.26
Interaction Estimate 1 ^a	0.74	0.60	-0.44	1.92	1.23	.22
Interaction Estimate 2 ^b	-0.24	0.65	-1.51	1.03	-0.38	.71
Interaction Estimate 3 ^c	0.97	0.63	-0.27	2.21	1.54	.12
Interaction Estimate 4 ^d	0.34	0.60	-0.83	1.51	0.57	.57

Table S2e. MDS-UPDRS-III Analysis of GEE Parameter Estimates/Empirical Standard Error Estimates

Parameter	Estimate	Std Error	95% Confidence Limits		Z	p
Intercept	37.88	1.86	34.24	41.53	20.36	<.0001
Follow-up – Baseline	-1.18	1.42	-3.96	1.59	-0.84	.40
Post – Baseline	-4.65	1.31	-7.21	-2.10	-3.57	.0004
Tango - Stretching	-0.96	2.68	-6.21	4.28	-0.36	.72
Treadmill – Stretching	-2.50	2.73	-7.85	2.85	-0.91	.36
Interaction Estimate 1 ^a	0.35	1.95	-3.47	4.18	0.18	.86
Interaction Estimate 2 ^b	2.96	1.64	-0.26	6.18	1.80	.07
Interaction Estimate 3 ^c	-0.42	1.98	-4.30	3.46	-0.21	.83
Interaction Estimate 4 ^d	1.82	1.97	-2.05	5.68	0.92	.36

Table S2f. PDQ-39 Analysis of GEE Parameter Estimates/Empirical Standard Error Estimates

Parameter	Estimate	Std Error	95% Confidence Limits		Z	p
Intercept	16.30	1.82	12.73	19.86	8.96	<.0001
Follow-up - Baseline	-6.71	1.29	-9.23	-4.19	-5.22	<.0001
Post - Baseline	0.09	1.37	-2.60	2.78	0.07	.95
Tango - Stretching	2.03	2.61	-3.08	7.14	0.78	.44
Treadmill – Stretching	2.92	3.23	-3.40	9.25	0.91	.36
Interaction Estimate 1 ^a	7.76	1.69	4.45	11.06	4.60	<.0001
Interaction Estimate 2 ^b	0.38	1.89	-3.33	4.09	0.20	.84
Interaction Estimate 3 ^c	5.15	1.85	1.51	8.78	2.78	.006
Interaction Estimate 4 ^d	-1.45	1.61	-4.61	1.71	-0.90	.37

The estimated intercept for each of the models refers to outcome measure for persons in the reference group (stretching at baseline). For example, looking at Table S2e for MDS-UPDRS-III, the intercept was 37.88 and relative to the Stretching group, the Treadmill group had UPDRS 2.5 points lower (not significant). The interaction estimates are interpreted as follows:

^aThe difference between Tango and Stretching at follow-up minus the difference between Tango and Stretching at baseline.

^bThe difference between Tango and Stretching at post minus the difference between Tango and Stretching at baseline.

^cThe difference between Treadmill and Stretching at follow-up minus the difference between Treadmill and Stretching at baseline.

^dThe difference between Treadmill and Stretching at post minus the difference between Treadmill and Stretching at baseline.

Table S3a. Forward Velocity Group x Time Simple Differences Least Square Means.

Group	Time	_Time	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Tango	FU	Post	0.1416	2.1880	0.06	.9484	-4.1468	4.4300
	FU	BL	-1.0225	2.4896	-0.41	.6813	-5.9019	3.8569
	Post	BL	-1.1641	2.0032	-0.58	.5612	-5.0904	2.7622
Treadmill	FU	Post	-1.7826	2.1089	-0.85	.3980	-5.9159	2.3508
	FU	BL	4.5110	2.1542	2.09	.0363	0.2888	8.7332
	Post	BL	6.2935	1.8522	3.40	.0007	2.6634	9.9237
Stretching	FU	Post	3.7625	3.5877	1.05	.2943	-3.2692	10.7943
	FU	BL	3.0779	2.2717	1.35	.1755	-1.3746	7.5304
	Post	BL	-0.6846	2.7359	-0.25	.8024	-6.0468	4.6776

Time	Group	_Group	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Baseline	Tango	Treadmill	1.2476	6.0047	0.21	.8354	-10.5214	13.0165
	Tango	Stretch	-6.6795	5.3757	-1.24	.2140	-17.2157	3.8567
	Treadmill	Stretch	-7.9270	5.9201	-1.34	.1806	-19.5301	3.6761
Post	Tango	Treadmill	-6.2101	6.1835	-1.00	.3152	-18.3295	5.9093
	Tango	Stretch	-7.1590	6.4446	-1.11	.2666	-19.7902	5.4723
	Treadmill	Stretch	-0.9489	6.7197	-0.14	.8877	-14.1192	12.2214
Follow-up	Tango	Treadmill	-4.2859	6.6353	-0.65	.5183	-17.2908	8.7190
	Tango	Stretch	-10.7799	5.2387	-2.06	.0396	-21.0475	-0.5123
	Treadmill	Stretch	-6.4940	5.7338	-1.13	.2574	-17.7321	4.7442

Table S3b. Backward Velocity Group x Time Simple Differences Least Square Means.

Group	Time	_Time	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Tango	FU	Post	0.7489	1.6718	0.45	.6542	-2.5277	4.0256
	FU	BL	4.8336	2.4621	1.96	.0496	0.0078	9.6593
	Post	BL	4.0846	2.4790	1.65	.0994	-0.7741	8.9433
Treadmill	FU	Post	0.7805	2.2167	.035	.7248	-3.5641	5.1251
	FU	BL	9.2031	2.4822	3.71	.0002	4.3381	14.0681
	Post	BL	8.4226	2.1116	3.99	<.0001	4.2839	12.5612
Stretching	FU	Post	-4.8720	3.4057	-1.43	.1526	-11.5471	1.8032
	FU	BL	5.1280	2.7270	1.88	.0600	-0.2167	10.4728
	Post	BL	10.0000	3.5398	2.83	.0047	3.0621	16.9379

Time	Group	_Group	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Baseline	Tango	Treadmill	-2.6458	5.5327	-0.48	.6325	-13.4897	8.1981
	Tango	Stretch	-4.3628	5.8037	-0.75	.4522	-15.7378	7.0122
	Treadmill	Stretch	-1.7170	6.1309	-0.28	.7794	-13.7332	10.2992
Post	Tango	Treadmill	-6.9838	6.0040	-1.16	.2448	-18.7514	4.7838
	Tango	Stretch	-10.2782	7.5167	-1.37	.1715	-25.0106	4.4542
	Treadmill	Stretch	-3.2944	8.0975	-0.41	.6841	-19.1649	12.5761
Follow-up	Tango	Treadmill	-7.0153	6.6778	-1.05	.2935	-20.1037	6.0730
	Tango	Stretch	-4.6573	6.0432	-0.77	.4409	-16.5018	7.1872
	Treadmill	Stretch	2.3580	7.0499	0.33	.7380	-11.4594	16.1755

Table S3c. Six-Minute Walk Test Group x Time Simple Differences Least Square Means.

Group	Time	_Time	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Tango	FU	Post	-19.4340	6.8066	-2.86	.0043	-32.7746	-6.0934
	FU	BL	-1.7087	6.6712	-0.26	.7978	-14.7840	11.3666
	Post	BL	17.7253	7.9412	2.23	.0256	2.1609	33.2897
Treadmill	FU	Post	-5.9130	11.1309	-0.53	.5953	-27.7292	15.9033
	FU	BL	6.1020	9.6744	0.63	.5282	-12.8595	25.0636
	Post	BL	12.0150	6.5087	1.85	.0649	-0.7419	24.7719
Stretching	FU	Post	-3.9644	8.9378	-0.44	.6574	-21.4822	13.5533
	FU	BL	11.2287	7.5594	1.49	.1374	-3.5874	26.0448
	Post	BL	15.1931	10.0215	1.52	.1295	-4.4487	34.8349

Time	Group	_Group	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Baseline	Tango	Treadmill	0.5075	28.1196	0.02	.9856	-54.6060	55.6210
	Tango	Stretch	-20.3161	27.7107	-0.73	.4635	-74.6281	33.9959
	Treadmill	Stretch	-20.8236	26.4924	-0.79	.4319	-72.7477	31.1006
Post	Tango	Treadmill	6.2178	30.0318	0.21	.8360	-52.6435	65.0791
	Tango	Stretch	-17.7839	31.0884	-0.57	.5673	-78.7160	43.1482
	Treadmill	Stretch	-24.0017	28.6163	-0.84	.4016	-80.0886	32.0853
Follow-up	Tango	Treadmill	-7.3033	33.1644	-0.22	.8257	-72.3042	57.6977
	Tango	Stretch	-33.2535	29.7816	-1.12	.2642	-91.6243	25.1174
	Treadmill	Stretch	-25.9502	30.1326	-0.86	.3891	-85.0091	33.1087

Table S3d. Mini-BESTest Test Group x Time Simple Differences Least Square Means.

Group	Time	_Time	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Tango	FU	Post	0.1268	0.3181	0.40	.6903	-0.4966	0.7502
	FU	BL	0.3832	0.3603	1.06	.2876	-0.3231	1.0894
	Post	BL	0.2564	0.4098	0.63	.5315	-0.5468	1.0596
Treadmill	FU	Post	-0.2274	0.4059	-0.56	.5752	-1.0229	0.5680
	FU	BL	0.6113	0.4052	1.51	.1314	-0.1830	1.4055
	Post	BL	0.8387	0.3261	2.57	.0101	0.1996	1.4779
Stretching	FU	Post	-0.8593	0.4136	-2.08	.0378	-1.6700	-0.04860
	FU	BL	-0.3593	0.4839	-0.74	.4578	-1.3077	0.5891
	Post	BL	0.500	0.5022	1.00	.3194	-0.4843	1.4843

Time	Group	_Group	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Baseline	Tango	Treadmill	0.6394	1.0239	0.62	.5323	-1.3675	2.6462
	Tango	Stretch	-0.5641	0.9538	-0.59	.5542	-2.4335	1.3053
	Treadmill	Stretch	-1.2035	1.0594	-1.14	.2560	-3.2799	0.8729
Post	Tango	Treadmill	0.0571	1.0240	0.06	.9556	-1.9499	2.0641
	Tango	Stretch	-0.8077	1.0063	-0.80	.4222	-2.7800	1.1646
	Treadmill	Stretch	-0.8648	1.0674	-0.81	.4178	-2.9568	1.2273
Follow-up	Tango	Treadmill	0.4113	1.0128	0.41	.6847	-1.5738	2.3964
	Tango	Stretch	0.1783	0.9198	0.19	.8462	-1.6244	1.9811
	Treadmill	Stretch	-0.2329	1.0688	-0.22	.8275	-2.3277	1.8618

Table S3e. MDS-UPDRS-III Group x Time Simple Differences Least Square Means.

Group	Time	_Time	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Tango	FU	Post	0.8623	1.2299	0.70	.4832	-1.5483	3.2729
	FU	BL	-0.8300	1.3468	-0.62	.5377	-3.4698	1.8098
	Post	BL	-1.6923	0.9991	-1.69	.0903	-3.6505	0.2659
Treadmill	FU	Post	1.2372	1.0476	1.18	.2369	-0.8160	3.2903
	FU	BL	-1.6015	1.3832	-1.16	.2469	-4.3125	1.1094
	Post	BL	-2.8387	1.4769	-1.92	.0546	-5.7334	0.0560
Stretching	FU	Post	3.4690	1.7947	1.93	.0532	-0.0486	6.9866
	FU	BL	-1.1849	1.4157	-0.84	.4026	-3.9595	1.5898
	Post	BL	-4.6538	1.3054	-3.57	.0004	-7.2123	-2.0954

Time	Group	_Group	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Baseline	Tango	Treadmill	1.5360	2.7729	0.55	.5796	-3.8988	6.9708
	Tango	Stretch	-0.9165	2.6759	-0.36	.7193	-6.2063	4.2832
	Treadmill	Stretch	-2.4975	2.7301	-0.91	.3603	-7.8484	2.8534
Post	Tango	Treadmill	2.6824	2.7380	0.98	.3272	-2.6841	8.0489
	Tango	Stretch	2.0000	2.5730	0.78	.4370	-3.0431	7.0431
	Treadmill	Stretch	-0.684	2.6328	-0.26	.7955	-5.8425	4.4777
Follow-up	Tango	Treadmill	2.3075	2.7392	0.84	.3996	-3.0613	7.6763
	Tango	Stretch	-0.6067	2.6232	-0.23	.8171	-5.7481	4.5347
	Treadmill	Stretch	-2.9142	2.8295	-1.03	.3031	-8.4600	2.6316

Table S3f. PDQ-39 Group x Time Simple Differences Least Square Means.

Group	Time	_Time	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Tango	FU	Post	0.5737	1.0723	0.54	.5926	-1.5279	2.6753
	FU	BL	1.0478	1.0918	0.96	.3372	-1.0920	3.1877
	Post	BL	0.4741	1.3020	0.36	.7158	-2.0778	3.0260
Treadmill	FU	Post	-0.2060	1.2467	-0.17	.8688	-2.6495	2.2376
	FU	BL	-1.5652	1.3349	-1.17	.2410	-4.1815	1.0512
	Post	BL	-1.3592	0.8451	-1.61	.1078	-3.0157	0.2973
Stretching	FU	Post	-6.8010	1.8542	-3.67	.0002	-10.4351	-3.1669
	FU	BL	-6.7109	1.2857	-5.22	<.0001	-9.2307	-4.1910
	Post	BL	0.09014	1.3738	0.07	.9477	-2.6024	2.7827

Time	Group	_Group	Estimate	SE	Z value	Pr > z	Lower CI	Upper CI
Baseline	Tango	Treadmill	-0.8938	3.2549	-0.27	.7836	-7.2732	5.4857
	Tango	Stretch	2.0306	2.6081	0.78	.4362	-3.0812	7.1423
	Treadmill	Stretch	2.9244	3.2270	0.91	.3648	-3.4005	9.2492
Post	Tango	Treadmill	0.9395	2.9940	0.31	.7537	-4.9286	6.8076
	Tango	Stretch	2.4145	2.9389	0.82	.4113	-3.3457	8.1747
	Treadmill	Stretch	1.4750	3.3092	0.45	.6558	-5.0110	7.9610
Follow-up	Tango	Treadmill	1.7192	3.1437	0.55	.5845	-4.4423	7.8808
	Tango	Stretch	9.7893	2.2072	4.44	<.0001	5.4632	14.1154
	Treadmill	Stretch	8.0700	3.0320	2.66	.0078	2.1274	14.0126