

SUBGROUP: ABLE TO PERFORM TMTb					
Outcome (n: AT,CT,UPT)	INTERVENTION			Difference among groups	
	AT	CT	UPT	P value	Effect size (η_p^2)
POMA (0-28)					
T0 (11, 11, 15)	16.0 ± 2.5	15.6 ± 3.3	17.1 ± 3.4	0.448 ^a	0.046
T1 (11, 11, 15)	19.7 ± 2.4	19.8 ± 2.2	20.1 ± 2.2	0.925 ^b	0.005
T2 (9, 11, 12)	20.7 ± 1.9	21.5 ± 3.5	20.8 ± 2.9	0.478 ^b	0.051
T3 (6, 8, 11)	23.2 ± 1.7	24.6 ± 2.6	24.1 ± 2.4	0.314 ^b	0.104
EMS (0-20)					
T0 (11, 11, 15)	11.7 ± 3.7	11.4 ± 3.9	11.7 ± 3.6	0.969 ^a	0.002
T1 (11, 11, 15)	15.3 ± 2.6	16.2 ± 1.7	16.1 ± 2.3	0.517 ^b	0.039
T2 (9, 11, 12)	16.1 ± 2.7	16.7 ± 1.9	17.7 ± 2.3	0.192 ^b	0.111
T3 (6, 8, 11)	17.8 ± 2.3	18.8 ± 1.0	18.1 ± 2.2	0.582 ^b	0.059
TUG (s)					
T1 (11, 11, 15)	20.6 (13.5-60.7)	18.4 (13.6-48.9)	21.5 (13.3-36.5)	0.997 ^c	-
T2 (9, 11, 12)	16.2 (11.9-49.3)	16.4 (10.4-88.9)	15.6 (10.4-34.1)	0.860 ^c	-
FAC (0-5)					
T0 (11, 11, 15)	3.0 (2.0-4.0) [†]	2 (2.0-3.0) [*]	2.0 (2.0-4.0)	0.060 ^c	-
ΔT1 (11, 11, 15)	1.0 (0.0-2.0) ^{††}	2 (1.0-2.0) ^{**}	1.0 (-1.0-2.0)	0.009^c	-
ΔT2 (9, 11, 12)	1.0 (0.0-2.0) ^{††}	2 (1.0-3.0) [*]	1.0 (0.0-3.0)	0.009^c	-
ΔT3 (6, 8, 11)	1.5 (1.0-3.0)	2 (1.0-3.0)	2.0 (1.0-3.0)	0.617 ^c	-
Walking speed (m/s)					
T1 (11, 11, 15)	0.69 ± 0.25	0.75 ± 0.28	0.69 ± 0.14	0.792 ^a	0.014
T2 (9, 11, 12)	0.78 ± 0.25	0.78 ± 0.31	0.81 ± 0.22	0.894 ^a	0.008
NEADL (0-66)					
T0 (10, 11, 15)	47.3 ± 9.3	42.3 ± 11.2 [*]	52.1 ± 11.2	0.084 ^a	0.139
T2 (9, 11, 12)	39.2 ± 16.2	42.5 ± 11.4	39.5 ± 17.5	0.265 ^b	0.090
T3 (6, 8, 11)	48.3 ± 5.0	45.8 ± 4.9	46.2 ± 11.0	0.329 ^b	0.100

Measures related to mobility, walking and daily functioning in the adaptability treadmill (AT) group, conventional treadmill (CT) group and usual physical therapy (UPT) group at baseline (T0), directly after (T1), four weeks after (T2) and 12 months (T3) after the intervention. *P* values for group differences were obtained using ^a One-Way ANOVA, ^b ANCOVA with baseline performance as covariate and ^c Kruskal-Wallis test.

Significant group effects are presented in bold ($p < 0.05$). Post-hoc tests:

** Significantly different from usual physical therapy (UPT) ($p < 0.01$)

* Trend towards different from usual physical therapy (UPT) ($p < 0.05$)

†† Significantly different from conventional treadmill training (CT) ($p < 0.01$)

† Trend towards different from conventional treadmill training (CT) ($p < 0.05$)

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POMA (0-28)					
T0 (7, 6, 6)	14.1 ± 3.0	15.5 ± 3.4	11.8 ± 4.4	0.236 ^a	0.165
T1 (7, 6, 6)	18.7 ± 1.7*	19.3 ± 1.8*	14.8 ± 3.6	0.035^b	0.361
T2 (7, 6, 5)	19.4 ± 2.9	19.2 ± 4.1	16.2 ± 3.8	0.647 ^b	0.060
T3 (1, 4, 3)	14.0 ± -	21.5 ± 4.4	19.3 ± 5.5	0.270 ^b	0.480
EMS (0-20)					
T0 (7, 6, 6)	9.7 ± 3.4	10.5 ± 2.0	8.3 ± 3.0	0.436 ^a	0.099
T1 (7, 6, 6)	15.0 ± 2.0	17.0 ± 1.3	12.8 ± 4.1	0.110 ^b	0.255
T2 (7, 6, 5)	15.9 ± 2.5	15.5 ± 3.3	13.0 ± 3.9	0.474 ^b	0.101
T3 (1, 4, 3)	12 ± -	16.8 ± 2.5	15.7 ± 2.1	0.371 ^b	0.391
TUG (s)					
T1 (7, 6, 6)	26.5 (25.7-37.5)	23.9 (18.6-34.7)	42.7 (21.9-79.9)	0.182 ^c	-
T2 (7, 6, 5)	25.7 (18.9-27.4)*	26.2 (17.0-37.1)	39.8 (24.1-42.2)	0.069 ^c	-
FAC (0-5)					
T0 (7, 6, 6)	2.0 (2.0-3.0)	2.0 (2.0-4.0)	2.0 (2.0-2.0)	0.423 ^c	-
ΔT1 (7, 6, 6))	2.0 (1.0-2.0)	2.0 (1.0-2.0)	1.5 (0.0-2.0)	0.416 ^c	-
ΔT2 (7, 6, 5)	2.0 (1.0-2.0)	2.0 (0.0-2.0)	2.0 (0.0-2.0)	0.839 ^c	-
ΔT3 (1, 4, 3)	2.0 (-)	2.0 (1.0-3.0)	2.0 (2.0-2.0)	1.000 ^c	-
Walking speed (m/s)					
T1 (7, 6, 6)	0.56 ± 0.08	0.75 ± 0.17*	0.47 ± 0.22	0.031^a	0.352
T2 (7, 6, 5)	0.67 ± 0.11*	0.61 ± 0.08	0.47 ± 0.17	0.068 ^a	0.302
NEADL (0-66)					
T0 (7, 6, 6)	40.0 ± 10.0	42.8 ± 17.4	43.3 ± 7.7	0.869 ^a	0.017
T2 (7, 6, 5)	21.3 ± 11.2	26.8 ± 17.2	18.8 ± 12.9	0.657 ^b	0.058
T3 (1, 4, 3)	19.0 ± -	34.5 ± 19.2	33.0 ± 7.5	0.390 ^b	0.375

Measures related to mobility, walking and daily functioning in the adaptability treadmill (AT) group, conventional treadmill (CT) group and usual physical therapy (UPT) group at baseline (T0), directly after (T1), four weeks after (T2) and 12 months (T3) after the intervention. *P* values for group differences were obtained using ^a One-Way ANOVA, ^b ANCOVA with baseline performance as covariate and ^c Kruskal-Wallis test.

Significant group effects are presented in bold ($p < 0.05$). Post-hoc tests:

* Trend towards different from usual physical therapy (UPT) ($p < 0.05$)

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Outcome (n: AT, CT, UPT)	INTERVENTION			Difference among groups	
	AT	CT	UPT	P value	Effect size (η_p^2)
Obstacle effect (%)					
T1 (11, 11, 15)	-18.1 ± 11.8	-20.5 ± 10.1	-22.0 ± 10.2	0.662 ^a	0.024
T2 (9, 11, 12)	-21.0 ± 9.5	-23.7 ± 13.2	-21.5 ± 8.9	0.822 ^a	0.013
Obstacle success rate (%)					
T1 (11, 11, 15)	100.0 (16.7-100.0)	100.0 (0.0-100.0)	83.3 (33.3-100.0)	0.639 ^c	-
T2 (9, 11, 12)	100.0 (33.3-100.0)	100.0 (16.7-100.0)	100.0 (33.3-100.0)	0.868 ^c	-
DTE- walking speed (%)					
T1 (11, 11, 15)	-27.3 ± 18.4	-36.7 ± 17.5	-32.8 ± 13.6	0.411 ^a	0.051
T2 (9, 11, 12)	-29.4 ± 15.0	-29.7 ± 18.3	-18.6 ± 15.2	0.200 ^a	0.105
DTE- subtractions (%)					
T1 (11, 11, 15)	29.0 (-33.9-208.0)	-6.2 (-62.8-55.6)	-4.8 (-43.3-48.0)	0.278 ^c	-
T2 (9, 11, 12)	6.35 (-27.7-120.2)	20.0 (-16.0-58.4)	18.6 (-46.0-678.0)	0.849 ^c	-

Measures related to obstacle avoidance performance and dual-task effects (DTE) in the adaptability treadmill (AT) group, conventional treadmill (CT) group and usual physical therapy (UPT) group directly after (T1) and four weeks after (T2) intervention. *P* values for group differences were obtained using ^aOne-Way ANOVA and ^bKruskal-Wallis test.

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Outcome (n: AT, CT, UPT)	INTERVENTION			Difference among groups	
	AT	CT	UPT	P value	Effect size (η_p^2)
Obstacle effect (%)					
T1 (7, 6, 6)	-19.4 ± 10.3	-22.0 ± 13.9	-30.3 ± 22.0	0.463	0.092
T2 (7, 6, 5)	-23.0 ± 11.1	-25.6 ± 11.0	-22.0 ± 21.1	0.914	0.012
Obstacle success rate (%)					
T1 (7, 6, 6)	100.0 (50.0-100.0)*	83.3 (50.0-100.0)*	41.7 (0.0-83.3)	0.031	-
T2 (7, 6, 5)	100.0 (50.0-100.0)	91.7 (33.3-100.0)	83.3 (66.7-100.0)	0.832	-
DTE- walking speed (%)					
T1 (6, 6, 6)	-12.9 ± 15.7	-34.6 ± 20.1	-29.2 ± 20.9	0.176	0.207
T2 (6, 6, 5)	-15.2 ± 18.2	-36.8 ± 16.3	-22.8 ± 18.2	0.133	0.251
DTE- subtractions (%)					
T1 (5, 6, 6)	-14.3 (-100.0-11.8)	11.6 (-22.7-54.7)	-6.0 (-100.0-58.8)	0.374	-
T2 (6, 6, 5)	-43.9 (-100.0-0.0)†	-3.7 (-26.2-77.3)**	-41.1 (-100.0- -26.8)	0.020	-

Measures related to obstacle avoidance performance and dual-task effects (DTE) in the adaptability treadmill (AT) group, conventional treadmill (CT) group and usual physical therapy (UPT) group directly after (T1) and four weeks after (T2) intervention. *P* values for group differences were obtained using ^a One-Way ANOVA and ^b Kruskal-Wallis test. Significant group effects are presented in bold ($p < 0.05$). Post-hoc tests:
 ** Significantly different from usual physical therapy (UPT) ($p < 0.01$)
 * Trend towards different from usual physical therapy (UPT) ($p < 0.05$)
 † Trend towards different from conventional treadmill training (CT) ($p < 0.05$)

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Outcome (n: AT, CT, UPT)	INTERVENTION			Difference among groups	
	AT	CT	UPT	P value	Effect size (η_p^2)
FES-I (20-80)					
T0 (11, 11, 15)	42.6 ± 11.0	43.9 ± 13.6	47.4 ± 14.2	0.631 ^a	0.027
T1 (11, 11, 15)	40.7 ± 16.0	39.4 ± 14.5	35.7 ± 13.1	0.268 ^b	0.077
T2 (9, 11, 12)	38.1 ± 15.0	38.2 ± 16.7	30.9 ± 10.8	0.166 ^b	0.120
T3 (6, 8, 11)	27.7 ± 9.3	28.6 ± 6.0	26.7 ± 7.2	0.722 ^b	0.031
VAS (0-100)					
T0 (11, 11, 15)	62.5 ± 14.8	66.2 ± 19.4	62.8 ± 16.7	0.843 ^a	0.010
T1 (10, 11, 15)	84.0 ± 19.0	85.4 ± 10.7	73.0 ± 14.5	0.076 ^b	0.148
T2 (9, 11, 12)	83.2 ± 18.7	84.2 ± 16.1	80.4 ± 12.8	0.903 ^b	0.007
T3 (6, 8, 10)	82.5 ± 15.4	85.7 ± 11.6	78.5 ± 13.8	0.524 ^b	0.063
HOOS-Q (0-100)					
T2 (9, 11, 12)	59.7 ± 30.6	59.7 ± 24.9	54.7 ± 19.8	0.861 ^a	0.010
T3 (6, 8, 11)	71.9 ± 25.5	68.8 ± 20.0	77.3 ± 20.2	0.688 ^a	0.033
TMTa (s)					
T0 (11, 11, 15)	85.0 (41.0-148.0)	79.3 (47.2-122.0)	80.0 (27.0-175.0)	0.975 ^c	-
T1 (11, 11, 15)	68.2 ± 26.7	70.2 ± 24.2	62.3 ± 23.2	0.413 ^b	0.052
T2 (9, 11, 12)	56.6 ± 20.8	68.1 ± 27.3	54.3 ± 17.6	0.193 ^b	0.111
T3 (6, 8, 11)	54.6 ± 16.9	65.7 ± 27.5	69.4 ± 26.1	0.724 ^b	0.030
TMTb (s)					
T0 (11, 11, 15)	162.0 (100.0-299.0)	200.0 (82.6-295.5)	181.0 (80.0-290.0)	0.566 ^c	-
T1 (11, 11, 15)	172.1 ± 82.5	174.4 ± 65.8	160.9 ± 71.6	0.539 ^b	0.037
T2 (9, 11, 12)	132.9 ± 46.5	167.8 ± 69.6	153.3 ± 86.8	0.961 ^b	0.003
T3 (6, 8, 11)	184.0 ± 70.9	181.2 ± 88.3	182.0 ± 91.6	0.389 ^b	0.086

Measures related to fear of falling and general health in the adaptability treadmill (AT) group, conventional treadmill (CT) group and usual physical therapy (UPT) group at baseline (T0), directly after (T1), four weeks after (T2) and 12 months (T3) after the intervention. *P* values for group differences were obtained using ^a One-Way ANOVA, ^b ANCOVA with baseline performance as covariate and ^c Kruskal-Wallis test.

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	AT	CT	UPT	P value	Effect size (η_p^2)
FES-I (20-80)					
T0 (7, 6, 6)	48.0 ± 15.3	46.2 ± 12.9	44.3 ± 17.4	0.912 ^a	0.011
T1 (7, 6, 6)	50.6 ± 15.7 [†]	30.5 ± 10.8 [*]	50.7 ± 15.4	0.029^b	0.376
T2 (7, 6, 5)	48.7 ± 11.9	37.5 ± 10.1 ^{**}	59.2 ± 12.6	0.029^b	0.398
T3 (1, 4, 3)	65.0 ± - ^{**, ††}	28.5 ± 6.8	30.3 ± 2.1	0.005^b	0.924
VAS (0-100)					
T0 (7, 6, 6)	58.4 ± 23.7	70.8 ± 19.3	55.0 ± 30.4	0.519 ^a	0.079
T1 (7, 6, 6)	75.7 ± 11.7	71.8 ± 20.9	84.6 ± 19.3	0.487 ^b	0.091
T2 (7, 6, 5)	75.7 ± 19.0	75.0 ± 11.0	66.4 ± 21.4	0.739 ^b	0.042
T3 (1, 4, 3)	50.0 ± -	77.3 ± 10.0	75.0 ± 5.0	0.121 ^b	0.653
HOOS-Q (0-100)					
T2 (7, 6, 5)	42.9 ± 26.6	53.1 ± 21.9	40.0 ± 21.5	0.625 ^a	0.061
T3 (1, 4, 3)	100.0 ± -	73.4 ± 31.6	83.3 ± 18.0	0.682 ^a	0.142
TMTa (s)					
T0 (7, 6, 6)	114.0 (76.2-262.0)	120.5 (96.0-164.0)	143.0 (100.0-300.0)	0.257 ^c	-
T1 (7, 6, 6)	127.6 ± 35.6	107.6 ± 49.2	146.4 ± 78.5	0.781 ^b	0.032
T2 (6, 6, 5)	118.6 ± 28.7	152.4 ± 95.9	121.9 ± 69.6	0.404 ^b	0.130
T3 (1, 4, 3)	64.4 ± -	111.4 ± 50.0	138.1 ± 41.0	0.879 ^b	0.062
TMTb (s)					
T0 (7, 6, 6)	>300	>300)	>300	-	-
T1 (7, 6, 6)	288.6 ± 30.1	280.7 ± 47.4	300.0 ± 0.0	0.590 ^b	0.064
T2 (6, 6, 5)	295.9 ± 10.1	278.8 ± 52.0	283.2 ± 37.7	0.722 ^b	0.045
T3 (1, 4, 3)	300.0 ± -	246.0 ± 90.8	300.0 ± 0.0	0.589 ^b	0.191

Measures related to fear of falling and general health in the adaptability treadmill (AT) group, conventional treadmill (CT) group and usual physical therapy (UPT) group at baseline (T0), directly after (T1), four weeks after (T2) and 12 months (T3) after the intervention. *P* values for group differences were obtained using ^a One-Way ANOVA, ^b ANCOVA with baseline performance as covariate and ^c Kruskal-Wallis test.

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** Significantly different from usual physical therapy (UPT) ($p < 0.01$)

* Trend towards different from usual physical therapy (UPT) ($p < 0.05$)

†† Significantly different from conventional treadmill training (CT) ($p < 0.01$)

† Trend towards different from conventional treadmill training (CT) ($p < 0.05$)

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	AT (n=8)	CT (n=10)	UPT (n=12)
Number of falls	7	3	9
Observation time, person-years	8	9.9	11.9
Fall incidence rate, falls/person-years	0.88	0.30	0.75
Number (%) of fallers	2 (25.0)	3 (30.0)	6 (50.0)
Incidence rate ratio (95% CI), relative to UPT	1.16 (0.31– 4.41, $p=0.824$)	0.40 (0.09- 1.90, $p=0.250$)	
Relative risk (95% CI), relative to UPT	0.50 (0.013-1.89, $p=0.373$)	0.60 (0.20-1.81, $p=0.415$)	

Abbreviations. AT: adaptability treadmill, CT: conventional treadmill, UPT: usual physical therapy, CI: confidence interval

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	AT (n=5)	CT (n=6)	UPT (n=4)
Number of falls	4	8	11
Observation time, person-years	4.5	5.2	3.6
Fall incidence rate, falls/person-years	0.88	1.65	2.96
Number (%) of fallers	2 (40.0)	2 (33.3)	3 (75.0)
Incidence rate ratio (95% CI), relative to UPT	0.30 (0.05– 1.70, $p=0.171$)	0.56 (0.12-2.66, $p=0.463$)	
Relative risk (95% CI), relative to UPT	0.53 (0.16-1.80, $p=0.524$)	0.44 (0.13-1.58, $p=0.524$)	

Abbreviations. AT: adaptability treadmill, CT: conventional treadmill, UPT: usual physical therapy, CI: confidence interval.