Implementing High-Intensity Gait Training in Stroke Rehabilitation: A Real-World Pragmatic Approach

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Table S1.

Patient demographics and baseline measures							
Subacute Stroke							
	Age (years)	Time Post Stroke (days)	Length of Stay (days)	ADM SSV (m/s)	ADM FV (m/s)	6MWT ADM (m/s)	FAC ADM
Pre-Implementation (n=19)	71 (63-78)	40 (33-143)	28 (28-35)	.62 (.28)	0.92 (.38)	181 (94)	3 (2-4)
Implementation (n=8)	73 (67-74)	40 (12-99)	24 (21-28)	0.74 (.24)	.99 (.41)	225 (119)	4 (3-5)
Competency (n=13)	72 (66-80)	56 (33-67)	28 (28-35)	0.64 (.34)	1.04 (.48)	247 (121)	5 (3-5)
p-Value	0.76	0.81	0.08	0.65	0.61	0.27	0.07
Chronic Stroke							
	Age (years)	Time Post Stroke (days)	Length of Stay (days)	ADM SSV (m)	ADM FV (m)	6MWT ADM (m)	FAC ADM
Pre-Implementation (n=19)	71 (65-76)	454 (279-1623)	21 (21-24)	0.65 (.34)	0.89 (.43)	181 (103)	4 (4-5)
Implementation (n=22)	65.5 (54-74)	1084 (414-1634)	21 (21-28)	0.55 (.29)	0.90 (.36)	214 (113)	4 (4-5)
Competency (n=18)	67 (58-77)	1016 (636-2606)	21 (21-25)	0.72 (.36)	0.92 (.49)	235 (124)	4 (4-5)
p-Value	0.31	0.31	0.59	0.51	0.95	0.43	0.48

Table S2a. Fidelity Metrics in Patients with Subacute Stroke

	Days of Stepping Data	Average Daily Stepping	Steps per Session	Min Stepping per session	Average Stepping Rate	Steps for 60 min sessions	Minutes Stepping for 60 min sessions
Pre-Implementation (phase 1, n=19)	13 (4)	3909 (2458)	748 (435-1044)	19 (6)	35 (9)	929 (565-1334)	23 (8)
Implementation (phase 2, n=8)	11 (4)	5542 (3353)	1853 (774-2195)	31 (11)	49 (17)	2312 (933-2821)	37 (12)
Competency (phase 3, n=13)	14 (3)	5033.5 (3038)	2306 (1492-2608)	37 (8)	54 (12)	2305 (1525-2784)	38 (8)
ANCOVA p-Value	0.09	0.41	<0.001	<0.001	<0.001	<0.001	0.023
Post-hoc p-Value	NA	NA	Phase 1-3: <0.001 Phase 1-2: 0.072 Phase 2-3: 0.600	Phase 1-3: <0.001 Phase 1-2: 0.003 Phase 2-3: 0.180	Phase 1-3: <0.001 Phase 1-2: 0.025 Phase 2-3: 0.628	Phase 1-3: 0.001 Phase 1-2: 0.035 Phase 2-3: 1.000	Phase 1-3: 0.031 Phase 1-2: 0.120 Phase 2-3: 0.958

	Days of HR data	Session Duration (Min)	HR Max	HR Avg	Time in HR Zone absolute	% session in the target HR Zone	RPE Max	Time in RPE Zone absolute	% session in the target RPE Zone
Pre-Implementation (phase 1, n=19)	13 (4)	40 (6)	67% (8%)	54% (7%)	1 (0-3)	1% (0-6%)	14 (13-14)	2 (0-7)	5% (1-15%)
Implementation (phase 2, n=8)	11 (4)	41 (5)	77% (12%)	65% (11%)	18 (3-28)	40% (6-56%)	16 (14-18)	22 (5-26)	48% (12-63%)
Competency (phase 3, n=13)	14 (3)	44 (4)	77% (9%)	64% (8%)	20 (4-26)	45% (10-54%)	17 (16-17)	21 (6-31)	34% (28-51%)

p-Value	0.091	0.238	0.005	0.003	0.001	0.002	<0.001	<0.001	<0.001
post-hoc p-value	NA	Phase 1-3: <0.001 Phase 1-2: 0.003 Phase 2-3: <0.001	Phase 1-3: 0.010 Phase 1-2: 0.029 Phase 2-3: 1.000	Phase 1-3: 0.012 Phase 1-2: 0.012 Phase 2-3: 0.906	Phase 1-3: 0.001 Phase 1-2: 0.005 Phase 2-3: 0.973	Phase 1-3: 0.003 Phase 1-2: 0.013 Phase 2-3: 1.000	Phase 1-3: 0.000 Phase 1-2: 0.017 Phase 2-3: 0.206	Phase 1-3: <0.001 Phase 1-2: 0.003 Phase 2-3: 1.000	Phase 1-3: <0.001 Phase 1-2: 0.001 Phase 2-3: 1.000

Table S2b. Fidelity Metrics in Patients with Chronic Stroke

	Number of Days Included	Average Daily Stepping	Steps per Session	Min Stepping per session	Average Stepping Rate	Steps for 60 min sessions	Minutes Stepping for 60 min sessions
Pre-Implementation (n=19)	9 (8-10)	3678 (2502)	584 (280 - 809)	16 (12-19)	32 (11)	749 (418)	19 (7)
Implementation (n=20)	10 (9-13)	5191 (3226)	1803 (1130-2155)	33 (26-37)	48 (12)	1913 (695)	37 (7)
Competency (n=18)	10 (10-11)	5758 (2562)	2001 (1467-2552)	38 (29-43)	52 (15)	2192 (947)	39 (9)
p-value	0.946	0.07	<0.001	<0.001	<0.001	<0.001	<0.001
post-hoc p-value	NA	NA	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.140	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.073	Phase 1-3: <0.001 Phase 1-2: 0.006 Phase 2-3: 0.592	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.450	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.770

	Days of HR data	Session Duration (Min)	HR Max	HR Avg	Time in HR Zone absolute	% session in the target HR Zone	RPE Max	Time in RPE Zone absolute	% session in the target RPE Zone
Pre-Implementation (n=19)	9 (1)	45 (45-47)	71% (8%)	58% (54-64%)	2 (1-6)	5% (1-13%)	3 (1-7)	3 (1-7)	6% (2%-16%)
Implementation (n=20)	11 (3)	53 (49-56)	80% (5%)	65% (62-69%)	17 (11-26)	31% (20-53%)	16 (15-17)	19 (16-25)	37% (28-47%)
Competency (n=18)	11 (2)	56 (54-59)	80% (8%)	64% (58-71%)	13 (8-31)	21% (15-55%)	16 (15-17)	20 (16-27)	36% (29-50%)
p-value	0.006	<0.001	<0.001	0.007	<0.001	<0.001	<0.001	<0.001	<0.001
post-hoc p-value	Phase 1-3: 0.050 Phase 1-2: 0.006 Phase 2-3: 0.770	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.003	Phase 1-3: 0.001 Phase 1-2: 0.001 Phase 2-3: 0.975	Phase 1-3: 0.014 Phase 1-2: 0.003 Phase 2-3: 1.000	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.581	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.396	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.411	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.411	Phase 1-3: <0.001 Phase 1-2: <0.001 Phase 2-3: 0.840