

# **SUPPLEMENTAL MATERIAL**

## **CHARACTERIZING AND IDENTIFYING RISK FOR FALLS IN THE LEAPS STUDY: A RANDOMIZED CLINICAL TRIAL OF INTERVENTIONS TO IMPROVE WALKING POST-STROKE**

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**Characteristics of Participants by Faller Category at 2 Months Post-stroke\***

Item	All Participants (n=408)	Non-fallers (n=173)	Single, Non-injurious fallers (n=88)	Multiple or injurious fallers (n=147)	p-value
<b>PERSONAL FACTORS</b>					
<b>Demographics</b>					
Male	224 (54.9%)	99 (57.2%)	47 (53.4%)	78 (53.1%)	0.72
Female	184 (45.1%)	74 (42.8%)	41 (46.6%)	69 (46.9%)	
Age at stroke onset	62.0±12.7	60.8±13.2	60.5±12.9	64.4±11.9	<b>0.02</b>
<b>Race</b>					
American Indian/Alaska Native	5 (1.2%)	3 (1.7%)	1 (1.1%)	1 (0.7%)	0.61
Asian	54 (13.2%)	26 (15%)	10 (11.4%)	18 (12.2%)	
Black or African-American	90 (22.1%)	46 (26.6%)	20 (22.7%)	24 (16.3%)	
White	236 (57.8%)	90 (52.0%)	51 (58.0%)	95 (64.6%)	
Native Hawaiian or Other Pacific Islander	19 (4.7%)	6 (3.5%)	5 (5.7%)	8 (5.4%)	
More than one	3 (0.7%)	1 (0.6%)	1 (1.1%)	1 (0.7%)	
Unknown or not reported	1 (0.2%)	1 (0.6%)	0 (0%)	0 (0%)	
<b>Ethnic Category</b>					
Hispanic or Latino	63 (15.4%)	28 (16.2%)	13 (14.8%)	22 (15%)	0.94
Not Hispanic or Latino	345 (84.6%)	145 (83.8%)	75 (85.2%)	125 (85.0%)	
<b>Education</b>					
<High School	92 (22.5%)	44 (25.4%)	17 (19.3%)	31 (21.1%)	0.10
High School, GED	112 (27.5%)	56 (32.4%)	23 (26.1%)	33 (22.4%)	
Any college	204 (50.0%)	73 (42.2%)	48 (54.5%)	83 (56.5%)	
<b>Marital Status</b>					
Single	54 (13.2%)	19 (11.0%)	14 (15.9%)	21 (14.3%)	0.19
Married	233 (57.1%)	104 (60.1%)	48 (54.5%)	81 (55.1%)	
Separated	13 (3.2%)	1 (0.6%)	6 (6.8%)	6 (4.1%)	
Divorced	42 (10.3%)	22 (12.7%)	6 (6.8%)	14 (9.5%)	
Widowed	62 (15.2%)	26 (15%)	12 (13.6%)	24 (16.3%)	
Other	4 (1.0%)	1 (0.6%)	2 (2.3%)	1 (0.7%)	
<b>Insurance Coverage</b>					
Medicare	111 (27.5%)	46 (26.7%)	26 (29.9%)	39 (26.9%)	0.96
Private	211 (52.2%)	89 (51.7%)	47 (54.0%)	75 (51.7%)	
Medicaid	17 (4.2%)	7 (4.1%)	3 (3.4%)	7 (4.8%)	
Uninsured	64 (15.8%)	29 (16.9%)	11 (12.6%)	24 (16.6%)	
Other	1 (0.2%)	1 (0.6%)	0 (0%)	0 (0%)	
<b>Co-morbidities</b>					
Depression score (PHQ-9)	4.7±5.2	4.4±5.2	4.8±5.5	5.0±5.1	0.55
Depression (PHQ-9 ≥10)	67 (16.4%)	28 (16.2%)	13 (14.8%)	26 (17.7%)	0.84
Atrial fibrillation	31 (7.6%)	14 (8.1%)	7 (8.0%)	10 (6.8%)	0.90
Coronary Artery Disease	56 (13.8%)	20 (11.6%)	13 (14.8%)	23 (15.8%)	0.53

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<b>Item</b>	<b>All Participants (n=408)</b>	<b>Non-fallers (n=173)</b>	<b>Single, Non-injurious fallers (n=88)</b>	<b>Multiple or injurious fallers (n=147)</b>	<b>p-value</b>
On Beta-blocker	163 (40.0%)	69 (39.9%)	39 (44.3%)	55 (37.4%)	0.58
Diabetes Mellitus	140 (34.4%)	57 (33.1%)	30 (34.1%)	53 (36.1%)	0.86
History of alcohol abuse	15 (3.7%)	5 (2.9%)	0 (0%)	10 (6.8%)	<b>0.02</b>
Body Mass Index					
<18.5	14 (3.4%)	4 (2.3%)	0 (0%)	10 (6.8%)	0.12
18.5-24.9	146 (35.8%)	64 (37%)	30 (34.1%)	52 (35.4%)	
25 - 29.9	135 (33.1%)	54 (31.2%)	32 (36.4%)	49 (33.3%)	
>30	113 (27.7%)	51 (29.5%)	26 (29.5%)	36 (24.5%)	
Pre-Morbid Barthel Index	99.3±2.4 (N=407)	99.5±2.0 (N=173)	99.5±2.2 (N=88)	99.0±2.9 (N=146)	0.11
Pre-Morbid SF-36 PF	52.3±7.8 (N=404)	52.4±8.0 (N=171)	52.4±8.2 (N=88)	52.2±7.2 (N=145)	0.97
Alcoholic drinks per week	2.4±5.8 (N=398)	2.4±5.3 (N=169)	1.8±3.6 (N=86)	2.8±7.2 (N=143)	0.46
Smoker (yes)	77 (19.1%)	36 (20.8%)	16 (18.6%)	25 (17.4%)	0.73
Activity Level pre-stroke					
3 or more times a week	299 (73.5%)	120 (69.8%)	68 (77.3%)	111 (75.5%)	0.79
One or two times a week	60 (14.7%)	29 (16.9%)	13 (14.8%)	18 (12.2%)	
One to two times a month	23 (5.7%)	11 (6.4%)	3 (3.4%)	9 (6.1%)	
Less than once a month	13 (3.2%)	5 (2.9%)	2 (2.3%)	6 (4.1%)	
Never	12 (2.9%)	7 (4.1%)	2 (2.3%)	3 (2%)	
<b>BODY FUNCTION AND STRUCTURE</b>					
<b>Stroke Characteristics</b>					
Location					
Left	164 (40.2%)	71 (41%)	31 (35.2%)	62 (42.2%)	0.53
Right	199 (48.8%)	85 (49.1%)	43 (48.9%)	71 (48.3%)	
Undefined	45 (11.0%)	17 (9.8%)	14 (15.9%)	14 (9.5%)	
Stroke Type					
Ischemic	290 (71.1%)	121 (69.9%)	65 (73.9%)	104 (70.7%)	0.48
Hemorrhagic	70 (17.2%)	34 (19.7%)	10 (11.4%)	26 (17.7%)	
Uncertain	48 (11.8%)	18 (10.4%)	13 (14.8%)	17 (11.6%)	
<b>Cognition</b>					
MMSE	26.1±3.5 (N=368)	26.1±3.4 (N=151)	26.2±3.5 (N=82)	26.0±3.6 (N=135)	0.91
Trail Making (B - A in seconds)	134.1±88.5 (N=375)	127.8±86.6 (N=157)	134.8±82.3 (N=83)	141.1±94.1 (N=135)	0.44
WAIS Digit Symbol Subscale	31.02±17.0 (N=385)	32.3±17.8 (N=160)	31.1±14.8 (N=86)	29.5±17.3 (N=139)	0.37
<b>Sensory-Motor</b>					
FM Total Motor Score	58.3±25.3	62.5±25.0	55.0±25.4	55.4±25.0	<b>0.02</b>
FM LE Motor Score	24.4±6.4	25.3±6.23	24.06±6.9	23.6±6.3	<b>0.05</b>
FM UE Motor Score	34.0±20.7 (N=407)	37.4±20.7 (N=172)	31.0±20.9 (N=88)	31.8±20.2 (N=147)	<b>0.02</b>
FM Sensation Score	19.5±5.9 (N=400)	20.1±5.4 (N=170)	19.1±6.0 (N=87)	19.0±6.4 (N=143)	0.19

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Paresis in dominant hand	N=171 (41.9%)	N=77 (45.0%)	N=33 (19.3%)	N=61 (35.7%)	0.55
<b>ACTIVITY LIMITATIONS</b>					
Comfortable Walking Speed (m/s)	0.38±0.22	0.42±0.22	0.37±0.23	0.34±0.21	<0.01
Fast Walking Speed (m/s)	0.51±0.31	0.57±0.3	0.5±0.33	0.47±0.3	0.01
Fast - Comfortable Walking Speed (m/s)	0.14±0.12	0.15±0.13	0.13±0.11	0.13±0.11	0.16
6-minute walk distance (m)	125±78	141±77	118±82	112±75	<0.01
Berg Balance Score	35.8±14.0	38.9±13.1	36.4±14.5	31.7±13.8	<0.01
Use of Assistive Device	359 (88%)	144 (83.2%)	79 (89.8%)	136 (92.5%)	0.03
Use of AFO	164 (40.2%)	64 (37.0%)	39 (44.3%)	61 (41.5%)	0.48
ABC Scale	45.1±23.9 (N=406)	49.8±23.8 (N=172)	44.2±24.9 (N=87)	40.0±22.5 (N=147)	<0.01
<b>PARTICIPATION</b>					
Steps/day	2552±2570 (N=384)	2893±2676 (N=163)	2308±2343 (N=81)	2295±2540 (N=140)	0.08
Stroke Impact Scale (Participation Subscale)	45.5±23.3	49.5±23.3	42.1±21.2	42.8±23.8	0.01
Modified Rankin Scale					
Rankin 0-2	56 (13.7%)	32 (18.5%)	11 (12.5%)	13 (8.8%)	<0.01
Rankin 3-4	352 (86.3%)	141 (81.5%)	77 (87.5%)	134 (91.2%)	
SF-36 Physical Function	27.8±9.6 (N=406)	28.4±9.4 (N=171)	28.1±9.4 (N=88)	26.8±9.9 (N=147)	0.33

\*Categorical variables are N(%), continuous variables are mean ± standard deviation.

PHQ-9=Personal Health Questionnaire Depression Scale; MMSE=Mini Mental State Exam; WAIS=Wechsler Adult Intelligence Scale; FM=Fugl-Meyer; LE=Lower Extremity; UE=Upper Extremity; ABC=Activities Balance Confidence; SF-36 PF=Short-Form-36 Physical Function subsection.