

Impact of rural home hospital on patient physical activity: Secondary analysis of a randomized controlled trial



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BACKGROUND

PROBLEM: Hospitalization in the brick-and-mortar (BAM) can decrease patient mobility and there is limited data assessing patient mobility in home hospital compared to BAM.

GOAL: To assess activity measure differences in BAM compared to home hospital and differences in activity by patient characteristics.

METHODS

- 1. Parallel patient-level RCT: intervention, home; control, hospital.
- 2. Home patients received two daily visits from RN/EMT-P, one visit from MD, IV infusions, oxygen and other care as needed.
- 3. Activity data collected via a continuous biometric monitoring patch and accelerometer.

RESULTS

- 111 patients (55 intervention, 56 control) across two sites.
- RHH associated with more daily steps (Daily steps: 1042.08 [95% CI 599.73-1484.44], p<0.001) and low-intensity physical activity (LPA) (% of day LPA: 6.41 [3.63-9.19], p<0.001) than BAM.
- Greater physical activity levels were also associated with a low risk versus high-risk PRISMA score (Daily steps: 738.95 [244.59-1233.3, p<0.004].

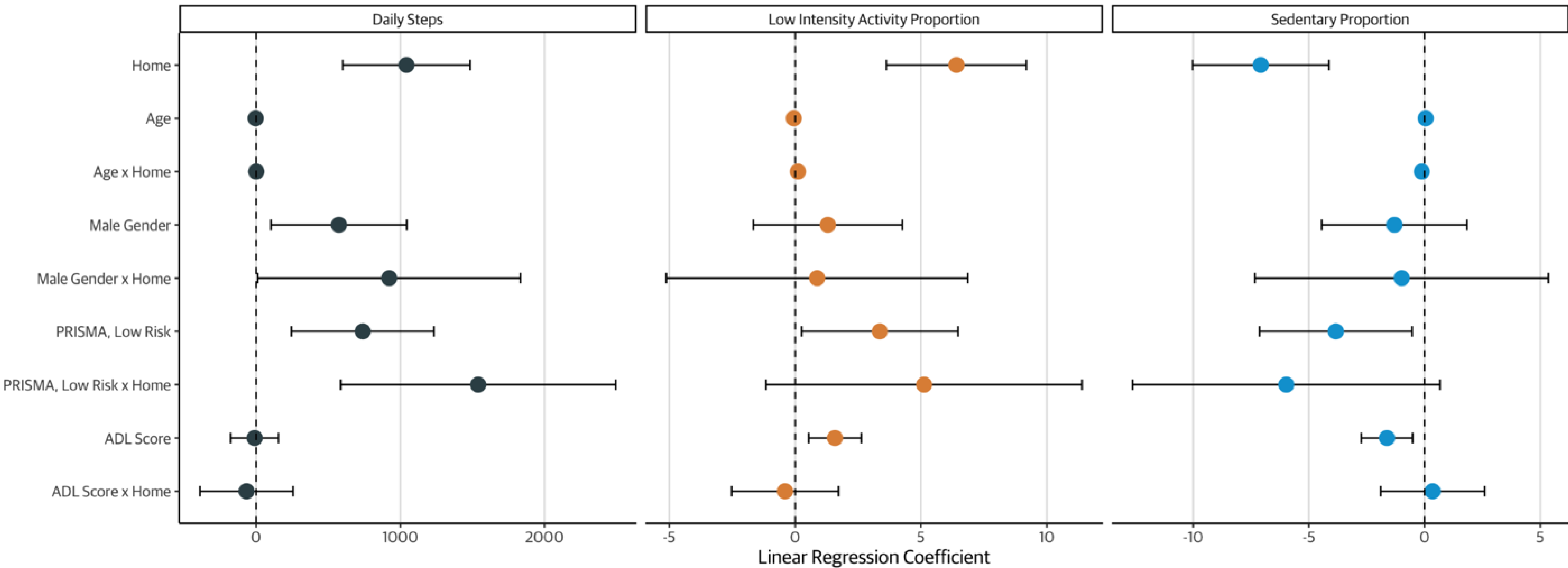
PARTICIPANT CHARACTERISTICS

	Home (N = 55)	Hospital (N=56)	Overall (N=111)
Age, mean (SD)	62.7 (16.9)	63.9 (13.9)	63.3 (15.4)
Gender, n (%)			
Female	36 (65.5)	34 (60.7)	70 (63.1)
Male	19 (34.5)	22 (39.3)	41 (36.9)
Race, n (%)			
Asian	1 (1.8)	0 (0)	1 (0.9)
Black	1 (1.8)	2 (3.6)	3 (2.7)
White	53 (96.4)	53 (94.6)	106 (95.5)
Other	0 (0)	1 (1.8)	1 (0.9)
PRISMA Score, n (%)			
High risk frailty	27 (49.1)	28 (50.0)	55 (49.5)
Low risk frailty	27 (49.1)	28 (50.0)	55 (49.5)
Missing	1 (1.8)	0 (0)	1 (0.9)
Length of stay, mean (SD)	6.42 (5.03)	4.77 (3.56)	5.59 (4.41)

CONCLUSION

- Positive association between home hospital care vs. BAM and patient activity further highlight the value of home hospital care.

MEAN DAILY STEPS, % OF DAY LOW INTENSITY ACTIVITY, AND % OF DAY SEDENTARY FOR DIFFERENT MODELS



Home hospital was associated with increased physical activity regardless of patient characteristics.



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