# OPTIMIZING LONG-TERM EXERCISE BENEFITS FOR OLDER ADULTS WITH HIV THE MOVIHNG STUDY

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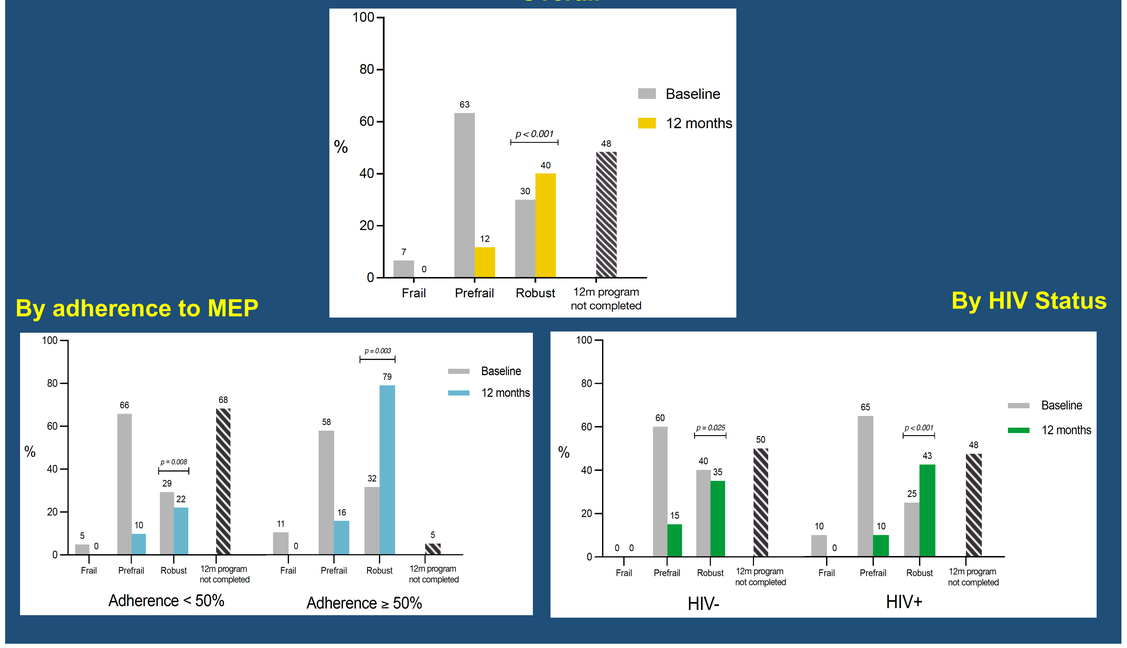
## BACKGROUND

We have previously demonstrated the efficiency of a 12-week multicomponent exercise program (MEP) in reversing frailty, improving physical performance, and preserving muscle mass in older adults with HIV (OAWH). The objective of this study was to analyze the efficacy of this MEP in the long term, after 1 year.

## METHODS

A prospective longitudinal study with intervention, control group and with 12-, and 48-week follow-up was performed. Sedentary adults 50 or over with and without HIV were included.The intervention was a MEP (resistance, endurance, balance, and flexibility training) performed in real life cconditions. Sociodemographic characteristics, comorbidity, medications, HIV-related data, and physical activity (IPAQ) were recorded. The dependent variables were frailty (Frailty Phenotype); physical function (gait speed and SPPB), physical performance (Senior Fitness Test), anxiety and depression measured by HADS and GDS-SF. Pre- and postintervention measurements were analyzed using McNemar's test for categorical variables and the Wilcoxon signed-rank test for quantitative variables.

**FIGURE 1. ROBUSTNESS RISK AFTER A 12-MONTH MULTICOMPONENT EXERCISE PROGRAM**




## RESULTS

**FIGURE 2. EFFECT OF THE 12-MONTH MEP ON PHYSICAL PERFORMANCE**

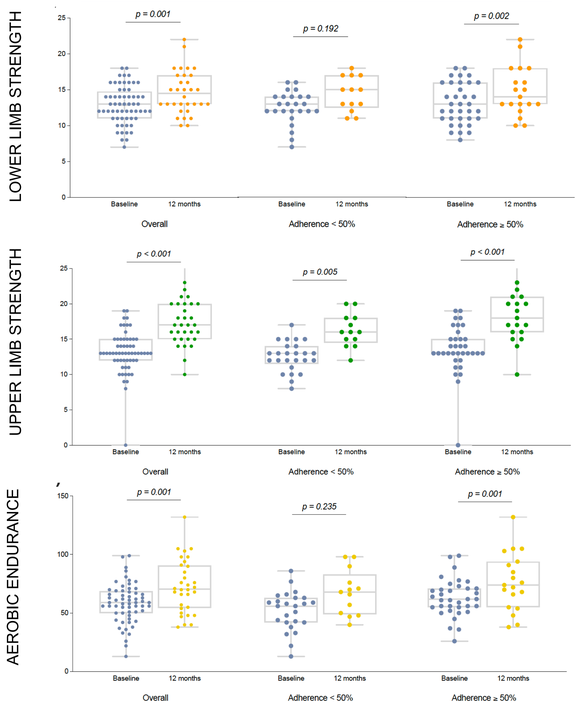



**FIGURE 3. EFFECT OF THE 12-MONTH MEP ON PHYSICAL FUNCTION**

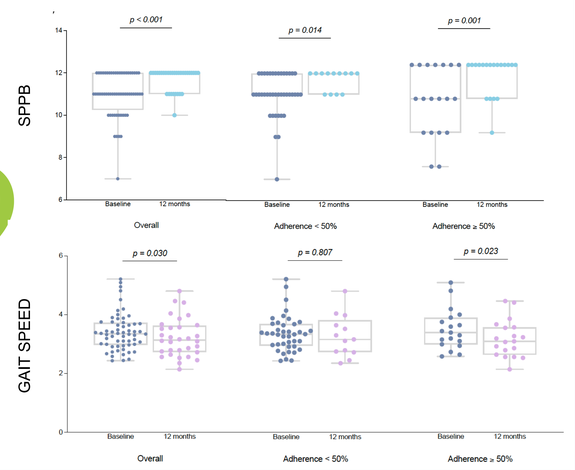
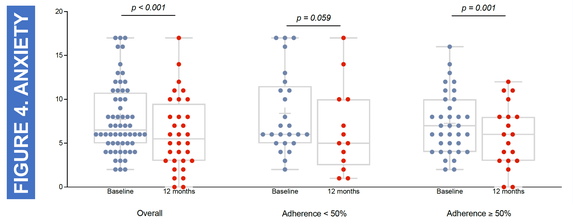



**FIGURE 4. ANXIETY**



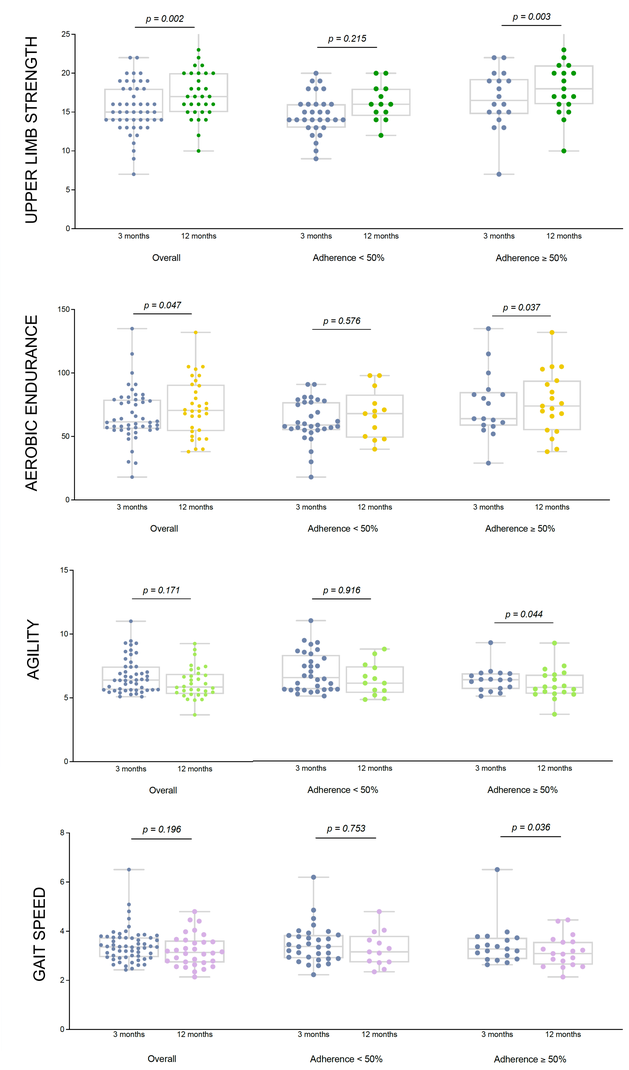

## BASELINE CHARACTERISTICS

| | VIH - | VIH + |
|---|---|---|
| N | 20 | 40 |
| Sex. Female (%) | 25 | 22.5 |
| Age. Median (p25-p75) | 58.5 (53-56.2) | 56 (53-61) |
| Living. N (%) | | |
| Alone | 10 (50) | 20 (50) |
| With partner | 10 (50) | 11 (27.5) |
| Others | - | 9 (22.5) |
| Medications. Median (p25-p75) | 2 (0-4) | 3.5 (2-4) |
| BMI. Median (p25-p75) | 26.7 (24.2-30.2) | 26.3 (22.7-30.2) |
| MNA-SF. N (%) | | |
| 8-11 | 2 (10) | 9 (22.5) |
| 12-14 | 18 (90) | 31 (77.5) |
| Pain. N (%) | 12 (60) | 26 (65) |
| Falls. N (%) | 4 (20) | 9 (22.5) |
| SPPB. Median (p25-p75) | 11 (11-12) | 11 (10-12) |
| Frailty. N (%) | | |
| Robust | 8 (40) | 10 (25) |
| Prefrail | 12 (60) | 26 (65) |
| Frail | | 4 (10) |
| Depression. N (%) | 2 (10) | 13 (32.5) |

## CONCLUSIONS

- A 48-week MEP improves robustness, physical function, physical performance in older adults independently of HIV status, and anxiety only in OAWH.
- Continuing the MEP after the first 12 weeks for up to one year produces an even greater improvement in physical function and physical performance.

**FIGURE 5. EFFECT OF CONTINUING THE MEP AFTER THE FIRST 12 WEEKS FOR UP TO ONE YEAR ON PHYSICAL PERFORMANCE AND PHYSICAL FUNCTION BY ADHERENCE**




**ADDITIONAL KEY INFORMATION**

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