

post values on vertical jump test; iii) *study design*: randomized studies. The methodological quality of the study included was measured using PEDRo scale [4]. Means and standard deviations for VJ of FIT were used to compute the Hedges' g effect size (ES). The ES were interpreted using the following thresholds [5]: < 0.2, trivial; 0.2–0.6, small; 0.6–1.2, moderate; > 1.2–2.0, large; > 2.0–4.0, very large; > 4.0, extremely large. In all analysis p-value < 0.05 was considered statistically significant. Statistical analysis were carried out using Jasp.

Results: An electronic search yielded 1685 articles, four of which were included in the SRMA involving commonly amateur soccer players. One study receiving 5 points was deemed to have moderate methodological quality, while the remaining three studies obtaining 6–10 points were assessed as high methodological quality. Between-group analysis showed a significant benefits favoring FIT over TRT in VJ (ES = 1.67; $p = 0.001$). A within-group analysis reported a significant favoring effect of FIT (ES = 1.22; $p < 0.001$) and TRT (ES = 0.34; $p = 0.006$) to improve the capacity of VJ in soccer players.

Conclusions: FIT e TRT are considered as valid methods to increase VJ of soccer players. The findings suggest that flywheel protocols should be supplemented during strength sessions in order to provide greater advantages on this sport-specific ability. However, considering few studies and the sample tiers, it is needed to extend this topic on elite soccer players.

References:

- [1] de Keijzer et al., *PLOS One*, 2022.
- [2] Buonsenso et al., *Sports (Basel)*, 2023.
- [3] Beato et al., *Sports Med*, 2024.
- [4] Blobaum, *J.Med.Libr.Assoc*, 2006.
- [5] Hopkins et al., *Med Sci Sport Exerc*, 2009.

P0112 - COMPARATIVE ANALYSIS OF PHYSICAL ACTIVITY, CLIMACTERIC SYMPTOMS, AND OPTIMISM IN EARLY VS LATE POSTMENOPAUSAL WOMEN

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Purpose: Numerous studies highlight the importance of maintaining a healthy lifestyle and being physically active to improve quality of life and reduce the risk of developing chronic non-communicable diseases. These precautions are particularly crucial for menopausal women, as the reduction in estrogen levels can lead to increased body fat, stress, and depression. These changes often result in feelings of inadequacy and a reduced desire to exercise and care for oneself. This cross-sectional study aims to evaluate the differences in physical activity (PA), body composition, climacteric symptoms, and optimism between women in early and late postmenopause.

Methods: The sample included 20 women, divided into early postmenopause (EP; $n = 10$) and late postmenopause (LP; $n = 10$)¹. All women wore the accelerometers Actigraph GT3X + 4 consecutive days to monitor their levels of PA (sedentary, light PA, moderate-vigorous PA and steps/day). The cut-off points proposed by Kamada et al.² were considered and physical activity was classified according

to WHO³ guidelines. Body mass index was calculated, and the presence of obesity was considered for values $\geq 35\%$ ⁴. Climacteric symptoms were evaluated using the Greene Climacteric Scale⁵, and the Revised Life Orientation Test⁶ was used to assess optimism. Data were summarized using descriptive statistics, and analysis was conducted using either the Student's t-test or the Mann-Whitney test. Significance was accepted as $p \leq 0.05$.

Results: The majority of the sample had a natural menopause (95%) and didn't report using hormone therapy (85%). Differences in age ($p = 0.01$) were identified between the two groups under analysis (55.80 ± 4.84 years in EP and 62.32 ± 5.28 years in LP), and obesity was identified in 9 participants.

Most of the sample was physically active (90%), but 75% of them took fewer than 10,000 steps per day. The average Greene Climacteric Scale score was 0.96 points (± 0.57), with significant differences ($p = 0.05$) observed only between the two groups in relation to vasomotor symptoms. Women in LP presented less sedentary behaviour (3833.30 min/week in LP and 4125.00 min/week in EP; $p = 0.05$) and a higher number of daily steps (9769.30 and 7733.00, respectively).

Conclusions: The findings suggest that women who have been menopausal for more than 6 years experience higher levels of vasomotor symptoms compared to those in early perimenopause (EP). Conversely, these women exhibit less sedentary behavior and take more steps per day.

P0113 - THE ROLE OF MATURITY OFFSET IN PREDICTING PERFORMANCE OUTCOMES IN YOUNG CYCLISTS

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Purpose: Biological maturation status is a key factor to consider when evaluating performance in young cyclists (1). The maturity offset (MO), defined as the time before or after the Peak High Velocity (PHV), can influence both aerobic and anaerobic capacities, as well as absolute and relative power. This study aimed to evaluate the effect of MO on Peak Power Output (PPO) during a ramp test and during a power-cadence test.

Methods: Twenty-two young cyclists (15 m, 7f) were recruited from the Research and Development Technical Centre of the Sicilian Regional Committee of the Italian Cycling Federation. The maturity offset of each participant was calculated using the Mirwald's predictive model (2). Participants were evaluated on their own bikes installed in a specific bike roller (Magnetic Days). A bike fitting was performed to improve their joint function using a 3D kinematic analysis system (STT System). Before testing, participants were asked to warm up for 10 min at self-selected pedalling intensity. Then, they performed a power-cadence test that involved five maximum sprints