

Supplementary Material

Each participant had knee flexion and extension strength recorded using an isokinetic dynamometer (System 2, Biodex Medical Systems, Inc, Shirley, NY, USA). Participants completed three maximal-effort isometric knee flexion and extension contractions with their dominant limb. A 30 s rest period was provided between each repetition. To measure knee flexion and extension strength, participants were seated with their knee at 45° and 60° before maximally pushing forward (extension) or pulling back (flexion) [1]. The maximum force of each trial was recorded (N•m) and normalized to body mass.

Statistical analysis was conducted on the strength data to determine if differences existed between the sexes. Maximum knee flexion and extension strength data were submitted to independent t-tests using SPSS (v23, IBM Corporation, Armonk, New York, USA) to determine if differences existed between the sexes, with alpha level ($p < 0.05$). The effect size was calculated using Cohen's D [2].

Results: The male participants were significantly stronger than their female counterparts (Table S). Males exhibited greater knee flexion and extension ($p = 0.04$, $d = 0.72$ and $p = 0.005$, $d = 1.03$) strength than female participants.

Table S: Mean (SD) dominant knee flexion and extension strength measures (Nm/kg).

| | Knee Flx* | Knee Ext* |
|---|------------------|------------------|
| M | 4.77 (0.93) | 7.00 (1.80) |
| F | 4.07 (0.94) | 5.43 (1.16) |

*Denotes a significant effect of sex.

References

1. Allison, K.F.; Keenan, K.A.; Sell, T.C.; Abt, J.P.; Nagai, T.; Deluzio, J.; McGrail, M.; Lephart, S.M. Musculoskeletal, biomechanical, and physiological gender differences in the US military. *US Army Med.Dep. J.* **2015**, 22–32.
2. Cohen, J. Chapter 2: The t Test for Means. 2.2 The effect size index: d. In *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed.; Earlbaum Associates: Hillsdale, NJ, USA, 1988; p. 20–26.