Thanks for the opportunity to review: Effect of Posture on Hip Abductor Strength: Implications for Clinical Practice. In this study, the authors measured hip abductor strength after different posture exposures for 5 minutes. The primary finding from the study is a 5% reduction in hip abductor strength following the slumped sitting posture compared to the prone lying and erect sitting postures. The study appears novel and has clinical relevance to the assessment of hip abductor strength in clinical practice. The study is designed and powered appropriately.

Comments

Introduction

1. There is a wealth of literature on hip strength/EMG testing and muscle anatomy that should be included. A direct link should be drawn between posture and potential effects on gluteus medius strength. Why would posture influence the strength of the gluteus medius muscle? Length tension relationships, laxity, creep, neuroanatomy.
2. Lines 29-31. The authors cite their personal observations. The study likely stems from the authors practical observations when testing the gluteus medius muscle, however the introduction must be grounded in previous scientific observations or draw potential relationships between established scientific factors.
3. Please format your purpose and hypothesis so the independent/dependent variables, and direction of hypothesized effect is evident.

Materials and Methods

1. Lines 48-50. Why these postures and not others?
2. Lines 58-61. The authors use their clinical observations to justify the posture maintenance time of 5 minutes for “strength changes to occur”. However, this is not necessarily the appropriate time. Since this is clinically relevant, how long are patients generally expected to be in a position would be better to justify. It may be that 10 minutes could affect strength exponentially compared to 5 minutes (the authors do address this in limitations).
3. Please move figures to the end of the sentences.
4. Lines 96-100. The authors cite Wilder et al for reliability and validity of handheld dynamometers. Note the Wilder et al used a stabilized dynamometer not hand held. Reliability is slightly lower for hand held (see Arnold et al 2010, *JSCR* for a possible reference substitution here).
5. Please define “make” and “break”
6. The authors could consider providing the minimal detectable change to enhance interpretation of their results.

Results

1. Figure 5. Please update figure 5 to include an indicator of significance, a measure of variability, units for the y axis, and start the y axis from 0. The axis

posture labels should be consistent with the text. The figure captions needs to be more descriptive.

2. Table 4 can be eliminated if partial eta squares is included in line 161.
3. If interested in a frequency analysis, please include this in your hypothesis in your introduction. Please also present the histograms for each postural position.
4. The authors note 30% of the participants seeing >10%, the data therefore appears skewed. Did the spread of the data meet the normality assumption?

Discussion

1. Please revise lines 183-185. A suggestion: There was a 5% decline in hip abductor strength in the SS condition compared to the SS and PL conditions.
2. Lines 188-192 requires a statical test to support as the authors reversed the order of conditions with every other participant.
3. Lines 192-199. While is reasonable to relate the results of this study to other studies noting strength reductions in relation to posture, the mechanisms underlying the reduction of rotator cuff strength to hip abductor strength will be very different. Unless these were the same postures which is not the case. Unless NCS & FHRS are equivalent to SS an ES in this study. If that is the case, the authors should use the same naming convention as their previous study,
4. Much of the information regarding L5 root innervation is relevant to the introduction and should be introduced there.
5. I believe there should be some EMG evidence to support reduced activation of the gluteus medius.
6. Line 268. The authors drift from scientific writing to a more conversational style of writing. The authors can simply state that assessment after SS may not accurately assess gluteus medius strength. The claim that the athlete may be vulnerable to injury if assessed after SS posture is not accurate since this positioning is underestimating strength not overestimating it. The SS posture induced deficit is transient and not a position a female soccer player will be in during activity.