**Effects of Varying Load During A Wingate Test**

**Method:** Five women, ages 22 ± 3yrs, volunteered to participate in this study. Each subject came to the research laboratory on two different occasions at the scheduled time and the test was explained to them. Data was collected including: height, weight, and age. The order of the two different resistances was randomized among the subjects. The seat on the cycle was adjusted for each subject’s leg length. Subjects pedaled for 1 min during a warm-up of easy cycling before the resistance was increased. Resistance was automatically removed at the end of 30 seconds. Researchers were not allowed to stand up during the 30 second test. The resistance was automatically removed at the end of 30 seconds. Researchers were then scheduled to return to perform the WAnT using the second resistance.

Each subject came to the research laboratory on two different occasions at the scheduled time and the test was explained to them.
- Data was collected including: height, weight, and age.
- The resistances were a torque factor of 0.60 ± 0.67. The order of the two different resistances was randomized among the subjects.
- The seat on the cycle was adjusted for each subject’s leg length.
- Subjects pedaled for 1 min during a warm-up of easy cycling before the resistance was increased.

**Results (cont’d)**

*With the command “start,” the subject pedaled as fast as possible against the resistance and was encouraged to pedal as hard and fast as they could for 30 seconds.*
*They were not allowed to stand up during the 30 second test.*
*The resistance was automatically removed at the end of 30 seconds.*
*Resistance was removed and the subject continued to pedal as long as needed to cool down.*
*During each test peak power, minimum power, fatigue slope, mean power, and peak power (body mass) were recorded.*
*They were then scheduled to return to perform the WAnT using the second resistance.*

**Conclusions**

The results of this study indicated that there were no significant differences in peak power, minimum power, mean power, peak power/BM, and fatigue slope when changing the resistance. This does not support previous literature, however, the variation in resistances in that study were much greater than those used in the current study.

**Table 1. Demographics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yrs)</td>
<td>22</td>
<td>±1.79</td>
</tr>
<tr>
<td>Height (inch)</td>
<td>63.33</td>
<td>±2.58</td>
</tr>
<tr>
<td>Weight (lbs)</td>
<td>142.83</td>
<td>±22.61</td>
</tr>
</tbody>
</table>