Fitness Profiles of Elite Tactical Units: A Critical Review
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Fitness Profiles in Elite Tactical Units: A Critical Review

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Background and Methods

Elite Tactical Units are at the forefront of national security and service. They are required to perform at the highest level, beyond that of regular tactical members.

Search Strategy

- A systematic search of key databases and utilization of experts in the field was conducted to identify relevant articles

Quality Assessment

- Included studies were then critically appraised using a modified Downs and Black checklist.

Screening

- Two reviewers independently screened and selected studies using inclusion and exclusion criteria established prior to screening

PRISMA Flow Diagram

Records identified through database searching (n = 3886)

Additional records identified through expert in the field (n = 3)

Records after duplicates removed (n = 3062)

Records excluded (must contain tactical and adults) (n = 1396)

Full-text articles assessed for eligibility (n = 1666)

Full-text articles excluded (n = 1652)

Reasons:
- Health concerns (n=1090)
- Health Intervention (n=288)
- Non elite (n=267)
- Systematic Review (n=5)
- Graphic representation of data (n=1)

Studies included in qualitative synthesis (n = 14)
Results

- Fourteen articles were included for review
- Critical appraisal showed an average score of 57.5% (46% - 68%)
- High variability in the tests used
- Most common measures examined were anthropometric and aerobic capacity
- Least common measures examined were agility and speed

Table 1: Summation of anthropometric and fitness measure results

<table>
<thead>
<tr>
<th>Measure</th>
<th>Minimum</th>
<th>Mean of Means</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI (kg/m²)</td>
<td>23.26</td>
<td>25.20</td>
<td>30.10</td>
</tr>
<tr>
<td>BF (%)</td>
<td>11.50</td>
<td>15.08</td>
<td>18.00</td>
</tr>
<tr>
<td>1RM Bench Press (kg)</td>
<td>90.38</td>
<td>99.90</td>
<td>105.60</td>
</tr>
<tr>
<td>1RM Leg Press (kg)</td>
<td>243.40</td>
<td>271.7</td>
<td>300.00</td>
</tr>
<tr>
<td>Vertical Jump (cm)</td>
<td>41.80</td>
<td>49.60</td>
<td>55.70</td>
</tr>
<tr>
<td>Med Ball Put (cm)</td>
<td>31.87</td>
<td>386.40</td>
<td>678.90</td>
</tr>
<tr>
<td>Long Jump (cm)</td>
<td>234.00</td>
<td>234.28</td>
<td>234.56</td>
</tr>
<tr>
<td>Peak Power (W)</td>
<td>251.13</td>
<td>3251.69</td>
<td>5531.63</td>
</tr>
<tr>
<td>Pull Ups (reps)</td>
<td>7.67</td>
<td>8.34</td>
<td>9.00</td>
</tr>
<tr>
<td>Sit Ups 2min (reps)</td>
<td>56.52</td>
<td>59.49</td>
<td>62.46</td>
</tr>
<tr>
<td>Push Ups 2min (reps)</td>
<td>56.46</td>
<td>60.48</td>
<td>64.50</td>
</tr>
<tr>
<td>Sit and Reach (cm)</td>
<td>13.57</td>
<td>39.92</td>
<td>75.00</td>
</tr>
<tr>
<td>Relative VO₂Max (ml/kg/min)</td>
<td>45.30</td>
<td>53.95</td>
<td>60.00</td>
</tr>
<tr>
<td>Absolute VO₂Max (L/min)</td>
<td>4.22</td>
<td>4.40</td>
<td>4.67</td>
</tr>
</tbody>
</table>
Discussion & Conclusion

• Elite tactical populations have higher fitness measures across almost all domains, except for sprint speed, power and muscular strength.

• Results support the idea that elite tactical units require high levels of fitness to perform their occupational requirements.

• High variety of fitness measures were used throughout the papers, sometimes with little rationale given.

• Moving forward, fitness measures should be chosen based on relationship to occupational demands
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