BACKGROUND

Patient-reported outcome instruments (PROs) can be used to assess the severity of impairments, quantify rehabilitation progress, and evaluate the quality of the clinician’s practice patterns. The barriers associated with the utilization of these instruments in practice include administration time and scoring time.1,2

The Quick-Foot and Ankle Ability Measure (Quick-FAAM)3 is a 12-item region-specific PRO that contains items from both the FAAM Activities of Daily Living (FAAM-ADL) and FAAM-Sport subscales. The Quick-FAAM has demonstrated excellent internal consistency and a strong correlation to the original FAAM in people with chronic ankle instability.3 However, the validity of this instrument for patients with acute or sub-acute foot or ankle conditions is unknown.

OBJECTIVES

To determine convergent and divergent validity of the Quick-FAAM in physically active patients seeking treatment for a foot or ankle pathology.

DESIGN

A cross-sectional design was used to determine the convergent and divergent validity of the Quick-FAAM.

METHODS

SUBJECTS

Twenty physically active patients
• Age: 19.9±1.8years
• Height: 69.6±3.6cm
• Weight: 83.1±24.4kg

INCLUSION CRITERIA

Subjects were included if they were:
• Between the ages of 18-35
• Participated in ≥90 minutes of strenuous/moderate/mild exercise per week prior to their injury
• Seeking treatment for an ankle or foot health condition (Table 1)

Table 1. Injury profile of included subjects (n=20)

Injury/Pathology | N
--- | ---
Ankle Sprain | 11
Foot/Toe Sprain | 2
Tendinitis | 3
Other | 4

METHODS cont.

PROCEDURES

After informed consent the patients completed a demographic questionnaire and the four PRO instruments:
• Modified Disablement in the Physically Active Scale (mDPA)
• Short-Form 12 (SF-12)
• FAAM-Sport and ADL
• Quick-FAAM

The included PROs were administered and completed electronically and completed once at any time during the course of their treatment

INSTRUMENTATION

Modified Disablement in the Physically Active Scale (mDPA)

The mDPA is a 16-item generic PRO comprised of a physical (mDPA-PCS) and mental component (mDPA-MCS). The mDPA-PCS and mDPA-MCS have demonstrated acceptable internal consistency.4 Scores range from 0-48 on the mDPA-PCS and from 0-16 on the mDPA-MCS, with higher scores indicating greater disability.4

Short-Form 12 (SF-12)

The SF-12 is a licensed, cost-for-use generic PRO that is comprised of two summary components: the SF12-PCS and SF12-MCS. The test-retest reliability is acceptable for both subscales.5 The SF-12 is scored using a norm based algorithm of 50 where lower scores represent a decrease in health-related quality of life.5

Foot and Ankle Ability Measure (FAAM)

The FAAM is a region-specific PRO that is used to assess the impact of ankle or foot pathologies on the physical constructs of HRQOL.6 The ADL and Sport subscales have 21 and 8 items respectively. The ADL and Sport subscales have 21 and 8 items respectively. The FAAM demonstrated good convergent validity with the original FAAM, which contains 36 items and determined to be a valid measure in patients with a broad range of leg, foot, and ankle disorders.6

A barrier for PRO administration in clinical practice for athletic trainers and physical therapists is administration time.1,2 The newly developed Quick-FAAM appears to be a valid region-specific instrument that takes minimal time to administer and score. Future research should investigate the responsiveness and test-retest reliability of this measure in this patient population.

STATISTICAL ANALYSIS

The median (interquartile range (IQR)) were calculated for each variable.

Spearman’s Rank Correlations (\(r\)) were performed to determine the relationship between the: Quick-FAAM and the mDPA-PCS, mDPA-MCS, the SF12-PCS, the SF12-MCS and the FAAM-Total.

\[ r = \begin{cases} 
0.0-0.19 & \text{Weak (0.2-0.39); No relationship} \\
0.6-0.79 & \text{Moderate (0.4-0.59);} \\
0.8-1.0 & \text{Strong (0.8-1.0);} 
\end{cases} \]

RESULTS

The Quick-FAAM demonstrated good convergent validity with the included PROs measuring physical constructs of HRQOL: SF-12 PCS, mDPA-PCS and the FAAM total (Table 2).

The Quick-FAAM demonstrated good divergent validity with the included PROs measuring psychological constructs of HRQOL: the mDPA-MCS and SF12-MCS (Table 2).

Table 2. Correlations between the Quick-FAAM and Generic/Region-Specific PROs

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Median</th>
<th>IQR</th>
<th>(r)-value</th>
<th>(r^2)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick-FAAM</td>
<td>25</td>
<td>22</td>
<td>-0.795</td>
<td>0.632</td>
<td>0.001</td>
</tr>
<tr>
<td>mDPA-PCS</td>
<td>25.5</td>
<td>17.5</td>
<td>-0.347</td>
<td>0.120</td>
<td>0.134</td>
</tr>
<tr>
<td>mDPA-MCS</td>
<td>3</td>
<td>4.8</td>
<td>-0.347</td>
<td>0.120</td>
<td>0.134</td>
</tr>
<tr>
<td>SF12-PCS</td>
<td>44.3</td>
<td>18.3</td>
<td>0.891</td>
<td>0.794</td>
<td>0.001</td>
</tr>
<tr>
<td>SF12-MCS</td>
<td>56.3</td>
<td>10.5</td>
<td>0.306</td>
<td>0.093</td>
<td>0.217</td>
</tr>
<tr>
<td>FAAM-Total</td>
<td>83</td>
<td>37</td>
<td>0.919</td>
<td>0.845</td>
<td>0.001</td>
</tr>
</tbody>
</table>

CONCLUSIONS

The Quick-FAAM has good convergent and divergent validity in physically active adults seeking treatment for an ankle or foot pathology. This is similar to the results of the original FAAM, which was assessed using the SF-36 and determined to be a valid measure in patients with a broad range of leg, foot, and ankle disorders.6

A barrier for PRO administration in clinical practice for athletic trainers and physical therapists is administration time.1,2 The newly developed Quick-FAAM appears to be a valid region-specific instrument that takes minimal time to administer and score. Future research should investigate the responsiveness and test-retest reliability of this measure in this patient population.

REFERENCES