Outcome measures start a meaningful conversation with the patient that guides my examination.
- Antigone

Patient-Specific Functional Scale
I’m going to ask you to identify up to 5 important activities that you are unable to do or have difficulty with as a result of your problem. Today, are there any activities that you are unable to do or have difficulty with because of your problem?

Follow-up Visits
When I assessed you on [date] you told me you had difficulty with [playing drums]. Today, do you still have difficulty with [playing drums]?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date 1</th>
<th>Date 2</th>
<th>Date 3</th>
<th>Date 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playing drums</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Health-Related Quality of Life (HRQOL)
Beliefs
Psychological
Values
Social
Physical
Spiritual
Economic
Experiences

Snyder 2008
Clinician-Rated Outcomes

- ROM
- Strength / Endurance
- Joint Laxity
- Star Excursion Balance Test

Patient-Rated Outcomes

- Pain
- Patient-Specific Functional Scale
- Lower Extremity Functional Scale

Adapted from Michener, 2011
Patient-Rated Outcomes – Summary Item

Single Assessment Numerical Evaluation (SANE)

“On a scale of 0 to 100, how would you rate your [body part’s] function, with 100 being normal?”

Patient-Rated Outcomes – Region-Specific

Patient-Rated Outcomes – Disease-Specific

The Western Ontario Shoulder Instability Index (WOSI)

Background Concepts: Measurement Properties

Validity: Does the instrument measure what it is supposed to measure?

Reliability: Are the results reproducible?

Responsiveness: Can the instrument detect change?
Background Concepts: Ceiling Effect

OSWESTRY LOW BACK PAIN QUESTIONNAIRE

- Personal care
- Intensity of pain
- Lifting
- Ability to walk
- Ability to sit
- Sexual function
- Ability to stand
- Social life
- Sleep quality
- Ability to travel

Background Concepts: Appropriateness

Feasibility: Clinician Load

Feasibility: Patient Load

Feasibility: Practical Matters
### Numeric Pain Rating Scale

- **No pain**
- **Worst pain imaginable**
- Scale from 0 to 10

#### Interpretation
- Load - Patient: Minimal
- Load - Clinician: Minimal
- **MCID**: +/- 2 points (depends...)
- **Practical Matters**: Free; easy; familiar
- **Comments**: Flexibility a plus; needs consistency (recall period); used for all conditions

---

### Star Excursion Balance Test

#### Interpretation
- Load - Patient: >4 cm ANT asymmetry at risk of LE inj
- 10% side-to-side deficit notable
- **Normative data available**
- **Practical Matters**: Some space needed; not permanent.
- **Commercial device available** (Y-balance) but easily made with tape
- **Comments**: Easy right-to-left comparison, practice trials, normalize to limb length to use normative data
- Upper extremity equivalent...

---

### Single Assessment Numeric Evaluation (SANE)

“On a scale of 0 to 100, how would you rate your [body part’s] function, with 100 being normal?”

#### Interpretation
- **MCID**: 7 at 6 mos; 19 at 12 mos (adolescents with knee pain)
- **Practical Matters**: Easy; intuitive
- **Comments**: Validated for musculoskeletal conditions; used in adolescent population; does not capture HRQOL
**Patient-Specific Functional Scale**

I’m going to ask you to identify 3 important activities that you are unable to do or have difficulty with as a result of your problem. Today, are there any activities that you are unable to do or have difficulty with because of your problem?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date 1</th>
<th>Date 2</th>
<th>Date 3</th>
<th>Date 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playing drums</td>
<td>3</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moving band equipment</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serving in tennis</td>
<td>8</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>18</td>
<td>24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unable to perform activity

Able to perform activity at same level as before

**Load - Patient**

**Load - Clinician**

**Interpretation**
- MCID: 1.2 points (UE musculoskel)
- 2 (cervical radiculopathy)

**Practical Matters**
- Have scale written down and available to show to patient.

**Disablement in the Physically Active (DPA)**

**Instruction** Please answer each statement with one response by shading the circle that most closely describes your position within the past 24 hours. Each position has possible descriptors under each. Not all descriptors may apply to you, but are given as common examples.

**KEY**
1. No position
2. I have the problem, but it does not affect me
3. The problem slightly affects me
4. The problem moderately affects me
5. The problem severely affects me

<table>
<thead>
<tr>
<th>Pain</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Load - Patient**

**Load - Clinician**

**Interpretation**
- MCID: 9 (pts with acute injuries)

**Practical Matters**
- Free

**Quick DASH**

**Interpretation**
- MCID: 5 (pts with chronic injury)
- 2 (cervical radiculopathy)

**Practical Matters**
- Free
QuickDASH

Please rate your ability to do the following activities in the last week by clicking the number below the appropriate response.

<table>
<thead>
<tr>
<th>NO DIFFICULTY</th>
<th>HILD DIFFICULTY</th>
<th>MODERATE DIFFICULTY</th>
<th>SEVERE DIFFICULTY</th>
<th>UNABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Open a tight jar or cap.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Do heavy household chores (e.g., wash, walk, fence).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Carry a shopping bag or hardware.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Wash your hands.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Use a knife to cut food.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Recreational activities in which you take some form of impact through your arm, shoulder or hand (e.g., golf, hammering, tennis, etc.).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

QuickDASH Disability/Symptom Score: \( \text{MCID: } 16 - 20 \)

Practical Matters

IPAD app

Comments

Some clinicians use only Sports/Performing Arts Module

Lower Extremity Functional Scale

The Lower Extremity Functional Scale

We are interested in learning whether you are having difficulty at all with the activities listed below because of your lower limb problems in which you are currently seeking treatment. Please indicate on the scale how much difficulty you have.

Difficulty: None, a little bit of difficulty, a moderate amount of difficulty, or a lot of difficulty.

Continued...
Lower Extremity Functional Scale

| Load - Patient | 20 items |
| Load - Clinician | Some math |
| Interpretation | MCID: 9 |
| Practical Matters | Free |
| Comments | ? Ceiling effect |

Foot and Ankle Ability Measure – Sports Subscale

<table>
<thead>
<tr>
<th>Item</th>
<th>High Impact</th>
<th>Moderate Impact</th>
<th>Low Impact</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jumping</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landing</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting and Stopping Quickly</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Impact Activities</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cutting / Lateral Movements</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to Perform Activity with Normal Technique</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to Participate in Desired Sports As Long As You Like</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Foot and Ankle Ability Measure – Sports Module

| Load - Patient | 8 items |
| Load - Clinician | |
| Interpretation | MCID: 9 points |
| Practical Matters | |
| Comments | Entire FAAM includes 21 items relating to ADLs |

Fear-Avoidance Beliefs Questionnaire

<table>
<thead>
<tr>
<th>Item</th>
<th>Completeness Disagree</th>
<th>Unsure</th>
<th>Completeness Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My pain was caused by physical activity.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Physical activity makes my pain worse.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Physical activity might harm my back.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11. My work might harm my back.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12. I should not do my regular work with my present pain.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

And so on... 16 items

Foot, Ankle, and Lower Extremity Functional Scale

<table>
<thead>
<tr>
<th>Feature</th>
<th>Patient</th>
<th>Clinician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Interpretation</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Practical Matters</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Comments</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Fear-Avoidance Beliefs Questionnaire

<table>
<thead>
<tr>
<th>Feature</th>
<th>Patient</th>
<th>Clinician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Interpretation</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Practical Matters</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Comments</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
Outcome measures help me decipher patient-perceived limitations in their function (sport or social), quality of life, or activities of daily living and allows me to determine what is most important to them overall.

- Hollie

Sara Brown, MS, ATC
Director, Programs in Athletic Training
sara@boston.edu

Resources

- [http://www.rehabmeasures.org/default.aspx](http://www.rehabmeasures.org/default.aspx) (repository of summaries of outcome measures)
- [www.orthopaedicsscores.com](http://www.orthopaedicsscores.com) (on-line versions of multiple measures)