Validating the Patient Jefferson Teamwork Observation Guide (JTOG) to Improve Patient-Centered Collaborative Practice

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Objectives

1) Describe the “Patient” version of the Jefferson Teamwork Observation Guide (JTOG©) app as a means of assessing collaborative practice behaviors from the patient’s perspective.

2) Identify examples of how patient JTOG data can be used for educational interventions and/or practice improvements.

3) Recognize opportunities to employ the JTOG© assessment app to improve clinician training and outcomes in practice.
Background

- Interprofessional team-based collaborative practice (CP) is the new standard of care

- IPE and CP now embedded throughout training
  - Accreditation & other standards

- IPE Core Competencies (IPEC, 2011 & 2016) → Collaborative Practice
  - Communication
  - Values/Ethics
  - Teamwork
  - Roles/Responsibilities
Past Measurement of IPE Competency and CP

• Of the 47 available instruments:
  • Majority (>60%) assess attitudes and knowledge
  • Few linked to IPEC competencies
  • Few developed for workplace-based assessment
  • Many too lengthy for easy administration
  • None address the entire spectrum of learners (students → GME → providers)
  • Missing qualitative data collection
  • None have 360 degree evaluation of CP behaviors that specifically incorporates the perspective of patients and family members
  • None available on a portable app
Initially, JTOG developed as a tool for students participating in team-based clinical rounding.

- Designed to guide students to look for attributes of high functioning teams.
- Items mapped to IPEC core competencies.
- Paper and pencil → electronic version → app.
- Adapted original tool into 4 versions to elicit 360-degree feedback:
  - Team
  - Individual
  - Patient
  - Support person/family member.
JTOG App

• Competency-based assessment designed for use in simulation and clinical settings

• Streamlines all IPE/CP evaluation:
  • Team (n > 3100)
  • Patient (n > 400)
  • Caregiver/Family (n > 200)
  • Individual (n > 13,600)

• Team and Patient versions have validation evidence, others adapted

Lyons, et al., 2016;
Collins, et al., 2017;
LaNoue, et al., under review
## Patient JTOG

<table>
<thead>
<tr>
<th>Team Characteristic</th>
<th>IPEC Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each member of my team seemed prepared to discuss my current health using his/her professional knowledge.</td>
<td>Roles and Responsibilities</td>
</tr>
<tr>
<td>Team members engaged in friendly interaction with one another.</td>
<td>Teamwork</td>
</tr>
<tr>
<td>Team members appeared to listen to one another.</td>
<td>Communication</td>
</tr>
<tr>
<td>Each member of my team appeared to value the opinions of other members.</td>
<td>Values and Ethics</td>
</tr>
<tr>
<td>Each member of my team seemed to respect my wishes about my care.</td>
<td>Patient Centeredness</td>
</tr>
</tbody>
</table>
Patient JTOG Validation Study Methods

- 61 patients recruited from large, urban Family Medicine practice
  - Flyers and in-person and phone recruitment
  - Demographics representative of the practice
  - Reimbursed travel and time
- 4 teamwork videos watched
  - 2 inpatient, 1 high and 1 low-functioning
  - 2 outpatient, 1 high and 1 low-functioning
  - Viewed in the same order in the same setting
- 11 “expert” interprofessional faculty and staff members recruited from Jefferson
  - Followed the same procedure as patients
  - Provided lunch for participating
- Paper JTOG submitted following each video
- Study received IRB exempt approval
Patient Participant Demographics

**Participant Gender**
- Male: 67%
- Female: 33%

**Participant Race**
- African-American/Black: 79%
- Caucasian/White: 15%
- Multiracial: 1%
- Other: 2%

**Participant Age Range**
- 25-29: 4
- 30-34: 5
- 35-39: 3
- 40-44: 5
- 45-49: 5
- 50-54: 6
- 55-59: 8
- 60-64: 12
- 65-69: 7
- 70-74: 3
- 75-79: 1
- 80-84: 2

**Participant Perceived Health**
- Excellent: 56%
- Good: 23%
- Fair: 6%
- Poor: 15%
Expert Panel Demographics

- Largely Caucasian/White (91%)
- All perceived themselves in good to excellent health
- Roles
  - 3 nursing (1 patient safety expert)
  - 1 occupational therapist
  - 1 pharmacist
  - 1 physician
  - 1 radiologic scientist
  - 1 PhD researcher
  - 2 advanced degrees in education
  - 1 public health employee (patient safety)
Validation Study Results

Global JTOG Score Comparison

**Mean Difference**

<table>
<thead>
<tr>
<th>Video</th>
<th>Good Outpatient</th>
<th>Good Inpatient</th>
<th>Bad Outpatient</th>
<th>Bad Inpatient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert Mean</td>
<td>13.16</td>
<td>19.22</td>
<td>8.36</td>
<td>5.47</td>
</tr>
<tr>
<td>Patient Mean</td>
<td>13.45</td>
<td>19.18</td>
<td>8.58</td>
<td>8.83</td>
</tr>
</tbody>
</table>

*p < .005
### Validation Study Results

#### Descriptive Statistics for Global JTOG Scores and Between-Group and Between-Video Differences

<table>
<thead>
<tr>
<th></th>
<th>Patient Mean</th>
<th>Expert Mean</th>
<th>Mean Difference patients vs experts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bad Inpatient</strong></td>
<td>8.83 (3.81)</td>
<td>5.47 (.84)</td>
<td>3.35, p &lt; .005</td>
</tr>
<tr>
<td><strong>Good Inpatient</strong></td>
<td>19.18 (1.53)</td>
<td>19.22 (1.88)</td>
<td>.04 ns</td>
</tr>
<tr>
<td><strong>Mean Difference</strong></td>
<td>10.35, p &lt; .001</td>
<td>13.75, p &lt; .001</td>
<td></td>
</tr>
<tr>
<td>between videos (Inpatient bad-good)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bad Outpatient</strong></td>
<td>8.58 (2.98)</td>
<td>8.36 (2.81)</td>
<td>.22 ns</td>
</tr>
<tr>
<td><strong>Good Outpatient</strong></td>
<td>13.45 (3.59)</td>
<td>13.16 (3.72)</td>
<td>.29 ns</td>
</tr>
<tr>
<td><strong>Mean Difference</strong></td>
<td>4.87, p &lt; .01</td>
<td>4.8, p &lt; .01</td>
<td></td>
</tr>
<tr>
<td>between videos (Outpatient bad-good)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*ns = non-significant, p values reflect t-test*
Results

- Internal consistency high
  - Cronbach’s Alpha (.71-.94)
- Absolute agreement of numeric ratings moderate to high
  - Intra-Class Correlations
    - .53-.77 for patients
    - .61-.67 for experts (without bad inpatient video)
Patient JTOG: Sample Data

![Patient JTOG Global Scores Quartiles](image)
Feedback

They talked outside my door about me. I wonder where's the rules that protect the patient’s privacy. They gave me a pill without telling the cardiac doctor. The dose was too much and caused problems when going to the bathroom.

-Outpatient

They doctor always discusses what we should do. She takes time and is thorough. If not sure about something, she is always willing to reach out to other team members for consult. The team all knows what’s going on with me.

-Outpatient

Actions/Responses

• Handoff tools/mnemonics to streamline care transitions
• New patient-centered care delivery models, including co-location of multiple professions
• Enhanced education about roles of care team members
• Physical space adjustments to facilitate team meetings with patients and families
• Tailored TeamSTEPPS® training to address specific patient safety and communication issues
Feedback

Not much concern of the situation of the patient, indifferent…Couldn't help get resources. Would be superficially nice but not actually helpful. They don't care because it isn't their suffering and it's not their pain.

-Outpatient

Positive. They came in at separate times but all knew [the] same info. They had read the charts and done their studying.

-Inpatient

My doctors are nice, but I don't know what's going on.

-Inpatient

Actions/Responses

- Communication skills training, coaching and reinforcement
- Team-based bedside rounding to engage all team members in care plan and develop shared mental model
- Incorporating systematic teamwork strategies into daily workflow (e.g., team briefs/huddles/debriefs)
- Rapid cycle quality improvement
- Patient engagement in quality improvement efforts (e.g., patient suggestion “box,” Patient and Family Advisory Committees)
Study Findings

- Patient JTOG can be used by patients to differentiate good from bad teamwork in both inpatient and outpatient settings.

- Patients are accurate and reliable raters of team functioning (highly consistent with expert opinions of teamwork).

- Eliciting patient perceptions of teamwork in real time can enable rapid cycle quality improvement and advance team-based healthcare delivery.
JTOG App Demonstration
Instructions for Downloading JTOG App: iOS

• Open the App Store and press the “Search” tab towards the bottom

• Type “jtog” into the search box and tap the “Search” button on the keyboard

• Tap the “Install” button, or the icon that looks like a cloud

• Open the app and log in:
  • Username: jtog_demo@jefferson.edu
  • Password: password

• Once the app is done loading, you should see three types of available surveys below the welcome image
Instructions for Downloading JTOG App: Android

• Open the Play Store
• Type “jtog” into the search box towards the top and tap the “Search” button on the keyboard
• Tap the JTOG - Jefferson University & Hospitals result
• Tap the “Install” button, then tap Accept
• Open the app and log in:
  • Username: jtog_demo@jefferson.edu
  • Password: password
• Once the app is done loading, you should see three types of available surveys below the welcome image
App Video Instructions

• Select “Patient” JTOG to evaluate entire team performance from the patient’s perspective
• Indicate that you are the patient (not the support person)
• Complete evaluation

• Select Pulmonology/Critical Care for which care team provided your care
• Select Inpatient/Hospital Stay as the setting
• Submit the evaluation
Video Demonstration
Discussion

- How does soliciting 360-degree feedback enhance assessment of CP behaviors?
- How does the app format support CP assessment?
- What are potential benefits and challenges of implementation?
- How could this instrument be applied across the learning continuum? Across health professions? Multi-institutionally?
JTOG: Future Directions

- Apply 360-degree results to:
  - Develop teams that produce outstanding results for our patients, communities and population
  - Guide performance improvement in practice
  - Define national benchmarks in interprofessional CP
  - Enhance the delivery of team-based care
Questions?

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