

The Jefferson Teamwork Observation Guide: Reliability and Validity for Use in Education and Practice

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Background & Purpose

- Interprofessional education (IPE) is fast becoming an integral part of the education of health professions students. To meet this aim, it is important to provide students with the skills needed for interprofessional success, but also to use reliable and valid measures to help students and clinicians to recognize characteristics of well-functioning teams.
- The Jefferson Teamwork Observation Guide (**JTOG**) was created for health professions students to evaluate teams in action by rating behaviors indicative of good team work.
- The JTOG, mapped to the 2011 Interprofessional Education Collaborative Expert Panel (IPEC) core competencies, was developed over two years to help health professions students understand the characteristics of high functioning teams and to fill a gap in the literature around validated, competency-based assessment tools. The tool contains 14 Likert scale items and three qualitative items.
- The **purpose** of this presentation is to describe the JTOG's reliability and validity to support its use in education and practice.

Methods

- The JTOG was developed from students' observational experiences of an interprofessional education (IPE) clinical bedside rounding project.
- Teams of medical, nursing, and pharmacy students worked with the attending physician in the colorectal service at a large urban medical center. Students assessed the clinical team interactions on an observation form.
- An expert interprofessional panel examined the responses and narrowed down the characteristics of effective teams for inclusion on the form, drafting the test instrument.



Methods

- **Reliability:** We conducted a series of pilot tests to refine the JTOG and establish reliability.
- **Validity** (predictive): We had 142 students observe staged functional and dysfunctional standardized patient teams for rating with the JTOG.
- **Validity** (construct): Students from seven different healthcare programs used the JTOG to assess team functioning following clinical observations. A research team evaluated qualitative responses from 141 students for the presence of IPEC competencies (IPEC, 2011). Comments were coded individually and then in pairs to determine reliability. Consensus was reached by all seven members of the coding team for a sample of responses and the remaining comments were then coded independently by a trained research assistant to support validity of the codes.

Results

- **Development:** A 14-item tool was developed with Likert scale format. The items were mapped to the IPEC Core Competencies: Roles/Responsibilities, Communication, Values/Ethics, and Teamwork and to one domain on Leadership based on the literature.
- **Reliability:** Cronbach's alpha coefficients for two observational studies of teamwork were: 0.97 ($N=105$) and 0.98 ($N=114$).
- **Acceptability:** Students who completed the JTOG reported a high level of satisfaction with the tool, its ease of completion and instructions, and their ability to observe the team behaviors.
- **Validity:** Results for **predictive validity** showed a significant difference in mean ratings for the functional and dysfunctional teams ($M=42.2$, $SD=5.35$ vs. $M=24.7$, $SD=6.47$, $p<.0001$).
- Results for **construct validity** came from coding qualitative data from students' JTOG responses ($N=403$). All four competency domains were represented with Values/Ethics occurring most frequently (74.4%), followed by Teamwork (71.2%), Roles/Responsibilities (66.0%) and Communication (65.0%). Overlap among specific competencies was observed in 64.4% of the sample of responses and one subdomain (Teamwork 10) was not seen at all.

JTOG items

1. There appeared to be a leader who coordinated the discussion.
2. The team leader facilitated the discussion rather than dominated it.
3. Members of the team came prepared to discuss the case/situation from their profession-specific perspective.
4. Members of the team who were involved in the case/situation contributed to the discussion.
5. Discussion was distributed among all team members.
6. Members of the team appeared to understand the roles and responsibilities of the other members of the team.
7. Team members appeared to have respect, confidence, and trust in one another.
8. Team members listened and paid attention to each other.
9. Team members listened to and considered the input of others before pressing their own ideas.
10. Team members added other supporting pieces of information from their profession-specific perspective.
11. The opinions of team members were valued by other team members.
12. Team members appeared to feel free to disagree openly with each other's ideas.
13. Team members sought out opportunities to work with others on specific tasks.
14. Team members engaged in friendly interaction with one another.

Conclusions & Implications

The JTOG is an easy to use instrument with sufficient evidence of reliability and validity to assess behavior of clinicians in practice. The JCIPE team is developing other versions for use by preceptors, patients and caregivers (chosen support people). A mobile application is in development to allow observers to rate team behavior in real time rather than by using a paper-and-pencil version after observing.

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1. Interprofessional Education Collaborative (IPEC) Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel*. Washington, DC: Interprofessional Education Collaborative. Retrieved from <http://www.aacn.nche.edu/education-resources/IPECReport.pdf>.