Standardized Patients Provide a Reliable Assessment of Athletic Training Students Clinical Skills
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Context: Standardized patient (SP) encounters present an opportunity for students to receive immediate feedback regarding his or her performance during a real-time clinical evaluation (e.g., obtaining a patient history, interpersonal and clinical skills). This prompt formative feedback is a major benefit of SP encounters compared to other clinical evaluation methods. Since each SP is trained to provide a consistent portrayal of the case (e.g., concussion, knee injury), multiple students can be assessed consistently with the same clinical encounter.

Objective: To determine if SPs provide a reliable means of assessing an athletic training student’s clinical performance with regards to obtaining a patient history and completing a physical examination.

Design: Reliability study
Setting: Athletic Training Laboratory, Simulation Lab
Participants: SPs and two athletic training faculty at a public liberals arts institution in the Southeast evaluated AT students after an SP encounter. AT students completed SP encounters relevant to their progression through the curriculum. Junior AT students (n=15) completed the knee encounter, while senior AT students (n=16) completed the concussion encounter.

Intervention: After each SP encounter, the AT faculty and the SP completed a clinical performance checklist. The checklist included items related to obtaining a patient history (knee = 10 items, concussion = 15 items) and completing a physical examination (concussion = 8 items, knee = 10 items). The clinical performance checklist items were yes/no response evaluating the student’s performance.

Main Outcome Measures(s): For each SP encounter, composite scores were computed for both history (H) and physical examination (PE) for each of the AT faculty and the SP. Interclass correlation coefficients (ICC) were obtained to determine interrater reliability for H and PE items between AT faculty and SP. ICC coefficients were also determined between AT faculty for H and PE for each encounter.

Results: The reliability of the SPs accuracy at assessing the AT student’s successful achievement of a patient history was high for the concussion (ICC = 0.764, P = .004) and knee (ICC = 0.696, P = .003) encounters. The SP was reliable at assessing student’s PE of the concussion encounter (ICC = 0.792, P > .001), but not the knee encounter (ICC = -0.163, P = .562). Additionally, reliability between AT faculty was high for both H and PE for each SP encounter (Concussion H ICC = 0.838, P = .001; Knee H ICC = 0.742, P > .001; Concussion PE ICC = 0.578, P = .003; Knee PE ICC = 0.704, P = .019).

Conclusions: Overall, the SPs provided a reliable assessment of the AT student’s clinical performance with regards to obtaining a patient history and completing a physical examination. High between faculty ICC measures provide additional reliability of the SPs assessment of student performance. Since ICC
measures between instructors and SPs were not as high as between faculty instructors, we suggest that additional time be taken during initial and follow-up SP training on the checklists. Devoting additional time during SP training should increase the ICC measures between instructors and SPs.

**Key Words:** Inter-rater reliability, reliability, Clinical education, Clinical assessment, Outcomes