



Research Week 2021

Orthopaedic Surgery Multiplatform Online Clerkship: Introducing the Field during COVID-19

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Abstract

Due to the COVID-19 pandemic, many programs were forced to discontinue or rapidly transition traditional in-person clinical experiences to remote forums for medical students. This is especially challenging for surgical subspecialty rotations, during which students receive valuable hands-on experiences. As a solution, our institution's Department of Orthopaedics and Rehabilitation piloted the Remote Introduction to Orthopaedics (RIOS) course to expand students' background knowledge in orthopaedics through exposure to the principles of management and practice of orthopaedic care under close mentorship from orthopaedic surgeons. Specific learning objectives were assessed and redesigned to better suit the absence of hands-on experience. Learning objectives include reading radiographs, presenting cases, increasing familiarity with the hallmarks of orthopaedics research, and learning the basics of suturing, knot-tying, and fracture management using print and online resources. Students presented on weekly fractures, patient cases, and literature assignments on a video platform, where faculty and peers responded with feedback.

Two cohorts were enrolled in the RIOS curriculum over the course of two four-week blocks. All participants were surveyed afterwards regarding the learning objectives. Results showed significantly increased confidence and comfort in all aspects of the course objectives. As seen in Figure 1, students described that over the course of the RIOS class, their average level of confidence in describing a fracture based on radiographs improved from 1.5 to 3.9/5 ($p < 0.0001$). Additionally, students reported that their level of comfort for presenting a case during orthopaedics rounds improved from 2.2 to 3.7/5 ($p < 0.0021$). Limitations include the retrospective observational nature and associated recall bias through use of survey data. However, the improved comfort in utilizing many of these essential skills will be beneficial for sub-internships, residency, and beyond. Future directions include analyzing cohorts by year to further assess educational outcomes.

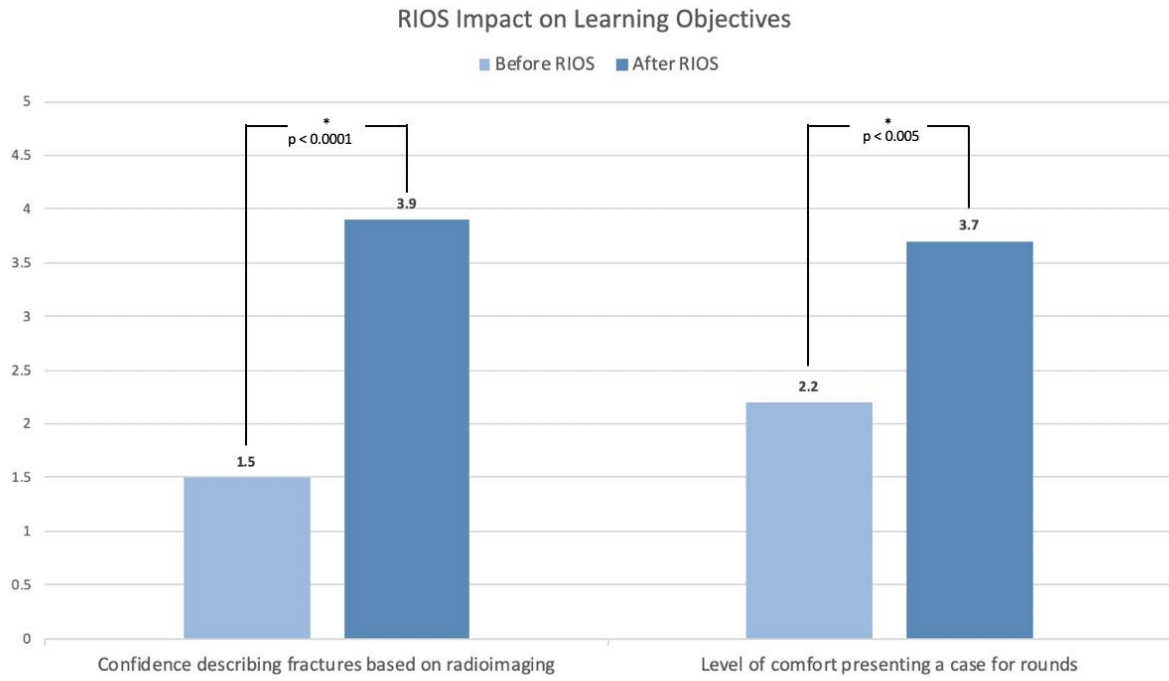


Figure 1: Significant increases in student confidence in clinical skills were seen following the 4-week online course. **Statistically Significant*