

PRACTICE (Presentation and Review of Active Cases to Improve the Clinical Experience) for Pediatric Clerkship Students

Introduction/Need for innovation

Pediatric clerkship students have traditionally developed clinical knowledge through a combination of didactic sessions and chance clinical exposures during a rotation. This traditional approach does not allow all students to fully integrate knowledge and practice progression within the Recorder-Interpreter-Manager-Educator (RIME) framework of clerkship student development. As clerkship education shifts towards a competency-based curriculum emphasizing entrustable professional activities, it will be critical to maximize opportunities for students to practice developing clinical skills.

Objective

Design, implement, and evaluate an interactive multi-modal curriculum allowing clerkship students to learn and apply knowledge of pediatric concepts within a framework of a standard clinical experience.

Instructional Methods

A comprehensive series of cases was created interleaving pediatric gastroenterology and general pediatric topics within a framework of a standard clinical experience requiring incorporation of history taking, creation of a problem list, formulation of differential diagnosis, and development of a basic management plan. The case was revised using rapid prototyping based on student and facilitator feedback. The case was implemented in small groups during the 2020-21 academic year. Students completed a pre-session case review and recorded oral presentations in the FlipGrid application (Microsoft Corporation), an educational video-based discussion forum. The teaching session consisted of small-group review of students' videos and discussion followed by a facilitated large-group discussion of relevant topics. Following the session, students submitted a SOAP note, after which, an exemplar note was distributed as a learning resource. A checklist was developed to evaluate elements of the FlipGrid presentation and written notes. Students completed a survey on the session with data analyzed using descriptive statistics and an inductive qualitative approach.

Results:

93 clerkship medical students completed the session, submitted a video presentation and wrote a note. Themes from content analysis include interactivity and the usefulness of multiple teaching modalities to enhance knowledge application. Representative comments include: "*The format in which it was presented (i.e. forming a differential/presentation, discussion in small and large group, and then writing a note) felt fairly realistic to the clinical setting*" and "*I really liked the combination of teaching modalities.*"

53% of students would use FlipGrid again to refine oral presentations. >70% found the post-session note helpful in organizing a problem list, formalizing, and prioritizing a differential diagnosis, and considering a management plan. Analysis of elements of videos and note is

ongoing. Preliminary results show 83% of students documenting a reasonable problem list and differential diagnosis.

Conclusions:

The multimodal approach supports learner development within the reporter and interpreter categories of the RIME framework, with evidence of skill in creating, reporting, and documenting a differential diagnosis for GI complaints. Flipgrid, which has not been used significantly within medical education, can easily be incorporated within curricula for students to practice oral presentation skills. Longitudinal use of this curriculum allows students to practice synthesizing, reporting, and documenting clinical reasoning outside of a clinical encounter. The framework is well-received by students, easy to maintain, and can be broadly applied across specialties with the development of specialty-specific cases.