Self-Directed Physical Exam Teaching Modules for Pre-Clerkship Students

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BACKGROUND/PURPOSE:
- The pre-clerkship curriculum is designed to ensure students have the knowledge, skills, and attitudes necessary to provide clinical care in clerkship rotations and beyond
- The goal of this project was to provide students with interactive and engaging video-based online resources as preparatory materials to enhance and maximize their in-person learning sessions.
- Our hypothesis was that after engaging with the online educational material, students would come better prepared to live sessions with an increased understanding of the basic maneuvers to perform, and thus free their time with faculty to fine-tune their skills.

APPROACH/METHODS:
- We developed bite-size, easy-to-digest, interactive modules demonstrating independent exam maneuvers and their fluid integration as performed during a typical examination.
- The modules included core physical exam categories such as: Vital signs, Neurology, Cardiology, Pulmonology, etc.
- To ensure accuracy, each module was designed by senior medical students in consultation with subspecialty teaching physicians.
- The senior medical students added useful guidance on what early learners need to know: offering tips and tricks they found most useful to their skills acquisitions in an intentionally informal and accessible format.
- We are in the process of developing additional modules to highlight differences that occur in various subspecialties and care locations which will be continued to be added.

RESULTS/OUTCOMES:
Outcomes were measured using a Qualtrics survey to allow users to provide feedback:
- Over 150 unique respondents have completed the surveys to date.
- 92% of students rated the modules as effective or very effective.
- 96% agreed that the time required to complete the modules was reasonable.

Informal feedback from faculty indicated:
- Improved preparation of students.
- Students arrived more ready to practice the exam maneuvers.
- Students asked more detailed questions.

DISCUSSION AND APPLICATIONS:
- Medical schools have been moving toward an increased focus on self-directed learning (1) which accelerated during the COVID 19 global pandemic and has greatly increased the need for strong supplemental educational modalities.
- Research has shown a variety of pedagogical approaches to teach the physical exam (2,3), emphasizing the importance of faculty time and in-person learning as valuable resources that must be maximized.
- The interactive nature of our preparatory modules led students to maneuver through various icons, reading passages, and question banks on the presented material.
- Through utilization of the novel educational resource, students demonstrated an improved understanding and confidence to correctly perform expected maneuvers during skills assessment despite decreased in-person time with faculty.
- With less time needed to cover basic skills, faculty have had an increased opportunity for deeper levels of feedback and reinforcement.

CONCLUSION/ SIGNIFICANCE:
- Both students and faculty agree that these modules improved preparedness for in-person learning.
- Our goal is to continue to expand the content areas covered in these modules and to share them with the greater educational community.
- As educators we have been pleased by the preparedness of our learners, the knowledge and growth they have demonstrated and their willingness to adopt and participate in an interactive learning experience.
- We hope to continue creating new ways to better prepare the physicians of tomorrow and encourage other schools to reevaluate how they present information to ensure it is as beneficial as possible for their learners.

REFERENCES: