

## Abstract Book

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## #SC13: SC - Teaching & Learning and COVID-19 1

**#SC13.6 Game-based learning to provide exposure to specialty fields (8609)** 

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## **ABSTRACT:**

**Background:** There is tremendous potential in using serious games, as they have been shown to be equally as effective as high-fidelity patient simulators for developing team skills. An advantage to using serious games over other forms of simulation is the low cost and high level of accessibility for students. PulmEx presents challenging and rare patient case scenarios that are seen in both general and interventional pulmonology.

**Summary of Work:** Second year undergraduate medical students were invited to participate in the study via email at the beginning of the academic year. Participation in the study coincided with the students pulmonology block where they received lectures on pulmonary pathology, pharmacology, and physical exam skills. Participants were randomly assigned into either the control group or the PulmEx intervention group and asked to complete a pre and post-survey. Students in the PulmEx group were asked to play a minimum of four cases per week during the four-week study period.

**Summary of Results:** Students in the intervention group reported being more interested in interventional medicine and more interested in pursuing pulmonology or interventional medicine as a career than the control group. The intervention group was also more confident working in a team to care for a patient with pulmonary disease, and recognizing various anatomical or pathological structures endoscopically. A majority of the students in the intervention group reported the cases helped them understand the material they were learning in class and that their experience with the app was fun.

**Discussion and Conclusions:** Given the notorious difficulty of pre-clinical curriculums, it is important to find ways for students to be able to solidify course content while also maintaining their wellbeing. Game-based learning offers students an opportunity to engage in the content that they are learning about in class in a novel way that has the potential to not only enhance their pre-clinical knowledge but also increase their confidence managing patients when they enter the clinical years.

**Take-home Messages:** In COVID-era remote medical education, game-based learning and simulation offer students an opportunity to begin experiencing specialized fields of medicine while simultaneously adding to their pre-clinical knowledge.

