

Abstract 27

Title: Using Audience Response to Reinforce Cardiac Murmur Recognition in the Preclinical Cardiovascular Block

Problem/Needs Assessment: Preclinical medical curriculum provides students with the opportunity to begin the life-long process of acquiring basic diagnostic skills, including cardiac murmur recognition. However, few resources are available that allow students to begin acquiring these skills with meaningful, immediate feedback to further develop their competence.

Program Objective: To improve 2nd year cardiovascular block students' recognition of cardiac murmurs

Description of Program: Using murmur mp3 files of normal and abnormal heart sounds, the students (n=120) participated in a short, baseline session (5 sounds) prior to their murmur lecture. During the murmur lecture, the instructor had the students listen to murmur audio files via headphones from their own laptops. As each murmur was taught, students would listen to that particular murmur. Four days following the murmur lecture, students participated in a mandatory session dedicated to identifying different murmurs (16 sounds in all) using audience response (Poll Everywhere).

Evaluation/Assessment: During the preliminary session (5 sounds), the class average was 60.8%: 66% aortic stenosis; 74% aortic regurgitation; 74% aortic stenosis and regurgitation; 27% mitral stenosis; 61% split S2. During the dedicated, in-class audience response session (16 sounds), the class average on the same 5 sounds as the preliminary activity was 77.4% (given as first 5 questions): 85% aortic stenosis; 95% aortic regurgitation; 84% aortic stenosis and regurgitation; 37% mitral stenosis; 84% split S2. For the final 6 questions of the session, the class averaged 86.7%.

Conclusions and Lessons Learned: Using audience response enabled the students to improve their recognition of cardiac murmurs when listening to audio files. Further studies will be needed to assess whether this approach improves long-term retention, performance on standardized exams, and murmur recognition in the clinical setting.