Evaluation of How Emergency Medicine Resident Engagement and Satisfaction are Affected by use of an Audience Response System

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**Background:** In an era of ubiquitous cell phones, laptops and tablet computers, residents appear to have difficulty maintaining focus during lectures. Electronic audience response systems (ARS) allow presenters to query the audience using a electronic keypads. These devices are commonly touted as increasing audience engagement. A literature search revealed no prior evaluations of the use of these devices in the GME environment.

**Objectives:** Our hypothesis was that use of an ARS would improve resident focus and that residents would be satisfied with this tool.

**Methods:** A pre and post survey was given to residents during regularly scheduled didactics at our 36 resident PGY 1-3 EM 36 resident EM program. Surveys were given approximately one year apart, during which time an ARS (Turning Technologies) was used for at least one large group lecture a month. All EM residents in our program present on the survey days were included. Likert-type surveys scale with values ranging from 1-5 asked questions about attention, difficulty in following along in lectures as well as a post test question on general satisfaction with the ARS. Median values and the results were compared using the Wilcoxon signed-rank test.

**Results:** 24 out of 36 of residents participated. There was a significant increase in residents’ ability to give their complete attention (median increase of 0.87 overall, p<0.05) and follow the material being presented in lectures (median increase of 0.67 overall, p<0.05), with an 85% overall satisfaction rate with the use of the ARS, with 42.9% “very or extremely” satisfied in the post survey.

**Conclusions:** An ARS appears to be useful modality to increase resident focus during lectures presented and improves their perceived ability to follow along with the presenter. Residents were very satisfied with the ARS as an educational tool.