Headphone High-Yields: Evaluating a Student-Created Educational Podcast

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Introduction

Medical students are expected to digest a massive amount of information. Traditional medical school curricula are composed of lectures, PowerPoints, and review texts. In addition, traditional curricula are usually led by faculty and requires students to be physically present. This educational model does not cater to auditory learners or those who prefer a more self-directed learning environment. In addition, peer-to-peer teaching can be particularly valuable compared to faculty-led learning because student-teachers possess a closer perspective to the needs and challenges facing learners.

Asynchronous learning is an alternative educational model, which provides more flexibility to students. In medical education, podcasts are becoming an increasingly popular asynchronous educational tool; however, their efficacy has not been adequately studied.

To address the gaps in traditional medical school curriculum mentioned above, we created an educational podcast to help students on their third-year Internal Medicine (IM) clerkship at Temple University Hospital (TUH) become familiar with the clinical responsibilities and format of the rotation. The goal of this study was to investigate the effect of our educational podcast on third-year clinical competencies.

Aims & Objectives

- Evaluate the efficacy of a student-developed podcast on MS3 confidence in clinical competencies.
- Evaluate student interest in podcast and asynchronous learning.

Methods

Sequential cohorts of IM clerkship students at TUH were voluntarily recruited. Podcast distribution was approved by the IM clerkship director.

An intervention cohort was provided a 30-minute "Intro to the IM Clerkship" podcast at the start of their rotation. After three weeks, they were sent a RedCap survey to assess measures of self-reported confidence with clinical competencies on a scale from 1 (poor) to 10 (exceptional) such as: understanding daily structure, their role on the team, creating a problem list, presenting new patients, presenting patient progress, writing SOAP notes, completing medicine reconciliations, understanding roles in code-blue situations, finding study resources, and identifying available self-care resources. They were also asked to rate the usefulness of the podcast in improving various clinical abilities on a scale of 1-5 (strongly disagree to strongly agree). The subsequent group of rotating students (control) was not provided with the podcast, but received a similar survey to measure self-perceived clinical confidence.

Results

In total, 21 clerkship students were recruited between January 2020 and March 2020 (control n=7; intervention n=17). Improvements in confidence with clinical competencies in the intervention group were noted for completing a medication reconciliation (16.1%), presenting patient progress (12.6%), writing SOAP notes (11.4%), and understanding the structure of the day (10.6% increase). No metric reached statistical significance (p<0.05). Of the intervention cohort, 14 (82.4%) expressed interest in further episodes.

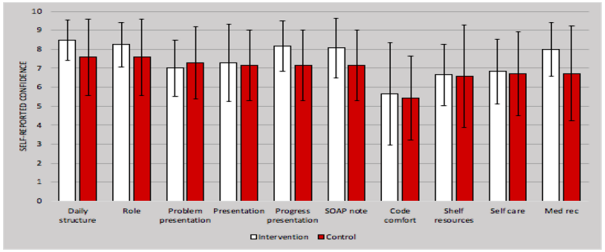

Figure 1. Self-reported confidence with clinical competencies. Error bars represent standard deviation.

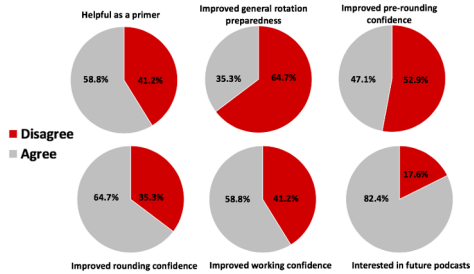

Figure 2. Student perceptions of the podcast. Students were asked to rate the usefulness of the podcast in improving clinical abilities from 1-5 (strongly disagree, disagree, neutral, agree, and strongly agree). Participants were grouped in either agree or disagree based on these results. Neutral data was not included.

Discussion

- This podcast appeared to have a positive impact on self-evaluated student clerkship competencies. The majority of listeners expressed interest in future episodes. Our data support the efficacy of and demand for educational podcasts to complement traditional medical school curricula.
- This study contained several confounding variables to consider including small sample size, student uncertainty associated with the unfolding COVID-19 situation, sequential rotating students having inherently more clinical experience than prior rotators, and the ability to generalize data from end-of-the-year rotating students to all medical students.
- Further studies with larger cohorts are warranted to obtain more conclusive evidence regarding the efficacy of peer-made podcasts as medical educational learning tools.

Acknowledgements

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