

Medical Education Research

'Medical Students' Media Multitasking During Lectures: Cognitive and Course-Related Correlates'

Presenter: Paula Patel, MS2

Authors: Jonathan Mayl, Ximena Quoriz, Sarah Vaala, Matthew Ritter, Karl Richardson, MD

Background: Technology and media use in medical school are both expected and encouraged. With constant access to media, however, students' learning may be impeded by media multitasking (MM; use of media devices during class for non-class purposes). Negative implications of MM on undergraduate students' learning has been established. This behavior has not been examined in medical education.

Aim: This study applies a behavioral prediction theory, the Theory of Planned Behavior (TPB), to assess relationships between students' perceptions of MM and course factors and their MM behavior during lectures. Findings can inform institutional efforts to discourage students' MM during lectures.

Methods: An online survey of MS1s and MS2s at our institution (N = 121) measured reported MM behaviors and multiple questions regarding a random recent course block. Also measured were TPB constructs, including attitude towards limiting MM during lectures, perceived norms of other students' MM behavior, and self-efficacy in limiting MM.

Results: Linear regression analyses assessed cognitive constructs of the TPB and course factors as predictors of two measures of MM: amount of time spent MM in lecture; estimated frequency of MM per lecture. Results indicated perceptions of other students' behavior was the strongest predictor of time spent multitasking ($\beta = -0.39$ $p < .01$), and MM frequency ($\beta = -0.39$, $p < .01$). Rates did not differ based on in-person versus remote attendance. Students reported less time multitasking when they were more engaged in lecture material ($\beta = -0.24$, $p = .05$), and that they would be more likely to cut back if their friend disapproved of MM ($\beta = 0.43$, $p < .01$). No other course factors predicted MM behavior. Additional analyses examine beliefs about multitasking that are strongly linked to intentions to reduce MM in subsequent blocks.

Conclusions: Strategic messaging to reduce students' MM in medical lectures could seek to emphasize that the behavior is not as common as students might think (i.e., change descriptive norms). Additionally, instructors might seek novel ways to engage students in lecture. Given the value of technology in medical education but known potential detriment of MM, additional research should focus on the impact of MM in this population.