

Abstract:

Background

Student curiosity in undergraduate medical education has been shown to have a positive impact on engagement and student performance. However, there is limited data on strategies to foster student curiosity in the preclerkship curriculum. The goal of this study was to describe curricular elements in the preclerkship phase that foster student curiosity.

Methods

We added an optional question to the course evaluation of all preclerkship courses about student curiosity: “Describe a time during this course when you were curious and motivated to learn more. (What triggered this interest? What questions did you have? How did you or how do you plan to follow up on these topics?)”. This question was asked after all first-year courses over three academic years (2021-2022, 2022-2023, 2023-2024). Qualitative data from this question were analyzed using inductive thematic analysis.

Results

A total of 1172 individual student responses were analyzed. The analysis revealed four key drivers of curiosity in preclerkship medical students: what was taught, how it was taught, faculty characteristics and student background. Content with clinical applications or patient care references commonly fostered curiosity. Similarly, educational methods that included case-based and small group learning were frequent drivers of curiosity. Faculty who shared their patient care experiences were noted to foster curiosity in addition to faculty who were described by students as having “enthusiasm or infectious joy.” Students’ personal connections to clinical topics from either previous work, research experience, or personal experience with illness were often noted to drive curiosity. Lastly, students acted on curiosity in one of three ways: knowledge-seeking, seeking research experiences, or seeking clinical experiences.

Discussion

This study describes the self-reported drivers of curiosity in pre-clinical medical students and how students act on this curiosity at a single institution. The results provide guidance to educators on how to promote curiosity including integrating clinical applications, increasing case-based learning, fostering faculty enthusiasm for teaching and encouraging faculty sharing of clinical and research experiences, referencing and integrating students' backgrounds and prior experiences. These modifiable elements align well with evidence-based teaching methods to foster student curiosity.