And Experimental Therapeutics

Feedback from Third-Year Medical Students on Reconstructed Pre-clerkship Pharmacology Curriculum

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Abstract Text Objective

To describe the revision of a pre-clerkship pharmacology curriculum and evaluate the impact, over a three-year period, of the revision on third-year medical students' opinions of preparedness for their clerkships, aiming to obtain valuable perspectives for ongoing enhancements in pharmacology education.

Methods

In the pre-clerkship curriculum at Zucker School of Medicine, the learning of pharmacology is integrated into organ systems. This is achieved through large group sessions, which are synchronized with self-directed small group case-based discussions initiated by students whenever the application of drugs is relevant. Dissatisfaction with our original pharmacology curriculum, as indicated by our students' responses to the Association of American Medical Colleges (AAMC) Medical School Graduation Questionnaire (GQ 2018, 2019), prompted a restructuring of pharmacology large group sessions. The revised format included extra time dedicated to fundamental concepts and incorporated additional sessions integrated with clinical science through case-based interactive approaches. To evaluate the effectiveness of these changes, a Likert-scale questionnaire was administered to the third-year medical students (class of 2021, 2022, and 2023) upon completion of their rotations in 6 clerkships. The questionnaire queried how well the revised pre-clerkship pharmacology curriculum prepared students for their clerkship and requested comments regarding areas for improvement.

Results

The study achieved an overall response rate exceeding 95% (N = 100-102 students per class). In contrast to the AAMC GQ reports of 2018 and 2019, where the proportions of students who felt the pre-clerkship pharmacology adequately preparing them for their clerkship were below the national average, the subsequent classes of 2021, 2022, and 2023 demonstrated significant improvement. In these later classes, an average of 80%, 90%, and 84% of students, respectively, expressed their agreement or strong agreement with the preparedness of the pre-clerkship pharmacology curriculum for their clerkship. Responses varied across specialties, with medicine, neurology, pediatrics, and psychiatry consistently receiving an average positive response rate exceeding 88%. Surgery garnered an average of 84% positive rate. However, obstetrics and gynecology (Ob/Gyn) consistently recorded the lowest satisfaction rates, ranging from 66% to 79%.

The comments regarding areas of weakness predominantly highlighted the absence of an introduction to drugs used in inpatient Ob/Gyn management, such as post-partum hemorrhage medications and induction agents. Additionally, students noted a lack of emphasis on standard dosing and brand names of the commonly used drugs, aspects that have not been one of the focuses of our pre-clerkship pharmacology curriculum.

Conclusion

The revised pharmacology curriculum has generally increased student satisfaction in the third year. However, it's important to note that certain expectations, like detailed dosing and brand names, may not be practical for the pre-clerkship phase. Although attention is needed to address specific concerns in Ob/Gyn to ensure a more comprehensive and effective educational experience, efforts should also be directed towards ensuring a realistic balance between student expectations and the curriculum's primary goals during the pre-clerkship phase.