

Psychiatry Mystery Module: An Interactive Patient-Based E-Learning Module to Teach Psychiatric Diagnosis and Treatment to Medical Students

Introduction

- The College of Human Medicine (CHM) at MSU developed an online interactive patient-based learning module to increase and improve student knowledge of psychiatric diagnosis and treatment during the third-year core Psychiatry clerkship.

The module allowed students to practice on the following key areas for student learning:

- 1) Be able to construct a comprehensive differential based on the patient's presenting psychiatric signs and symptoms
- 2) Be able to differentiate between different organic, substance use, and psychiatric disorders with overlapping symptoms
- 3) Be able to decide the most appropriate courses of action for the patient when confronted with comorbid conditions.

- This study was designed to determine how students use the online interactive module, to identify features that are important to students, and to explore educational benefits of the module.

Methodology

- Articulate Storyline, an E-learning authoring software was used for designing and publishing the interactive online module that third-year Psychiatry clerkship students piloted during spring 2016. The module integrates a variety of multimedia such as video, images and animations, assessments with immediate feedback, and relevant links to online resources.
- 3rd year Psychiatry clerkship students were invited to participate in the study to evaluate the interactive module. 5 different pilot sessions were planned during the Psychiatry clerkship to allow for student's schedule flexibility and to maximize student participation in the study. A total of 22 medical students participated in the pilot. After completing the module, students filled out an anonymous survey and participated in focus group sessions. The survey included questions about content organization, technology and assessment questions embedded in module. Focus group questions elicited feedback on how the online module supported student learning, areas for improvement and topics that can be developed in the future.

Module Delivery



- The online module interface is designed to be intuitive, easy to use and to provide the learner with the greatest flexibility and control over the content.

The module interface contains key areas to navigate content in the module:

1. Table of contents: Quick overview of materials and control to access any content areas with a click.
2. Main content window: Displays all relevant content (video, text, quizzes, audio).
3. Module player: Offers users playback controls (play, stop, pause, search, volume, previous, next).

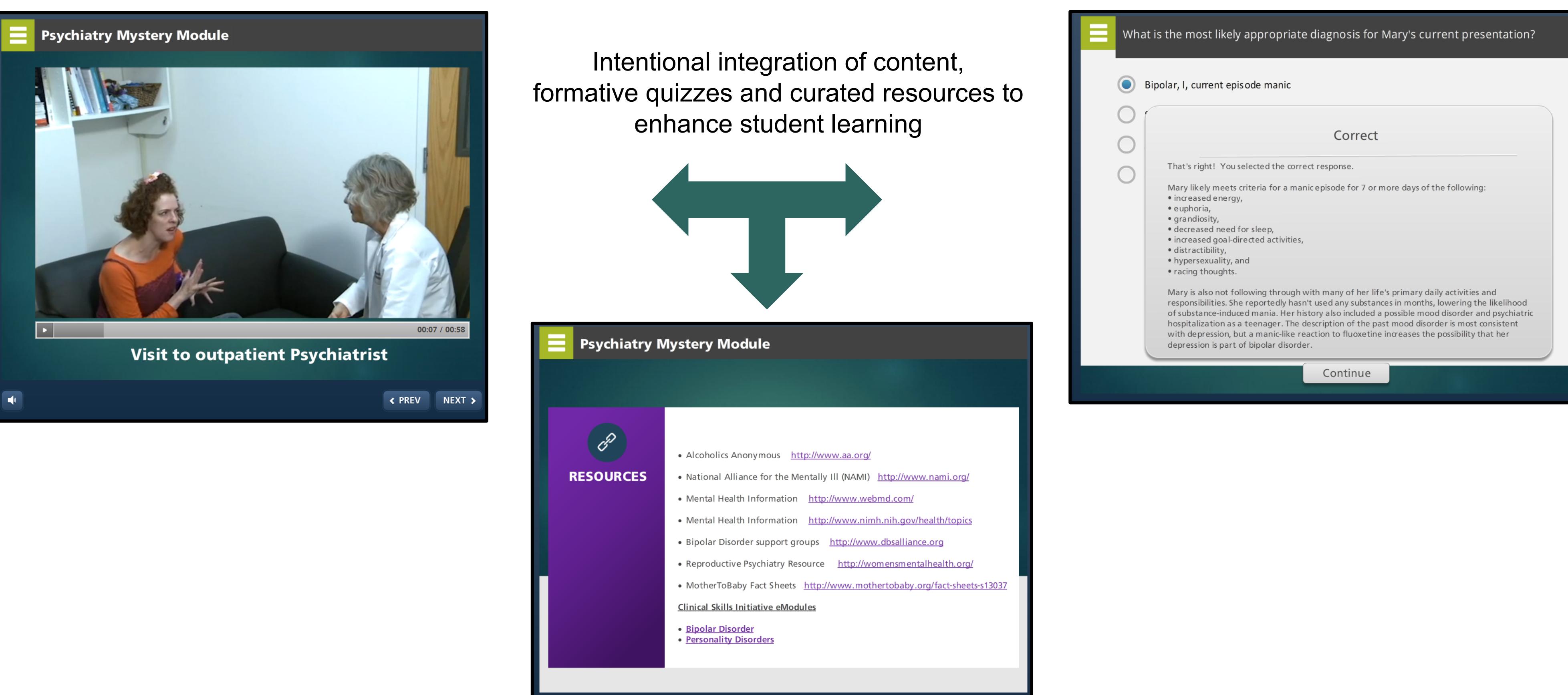
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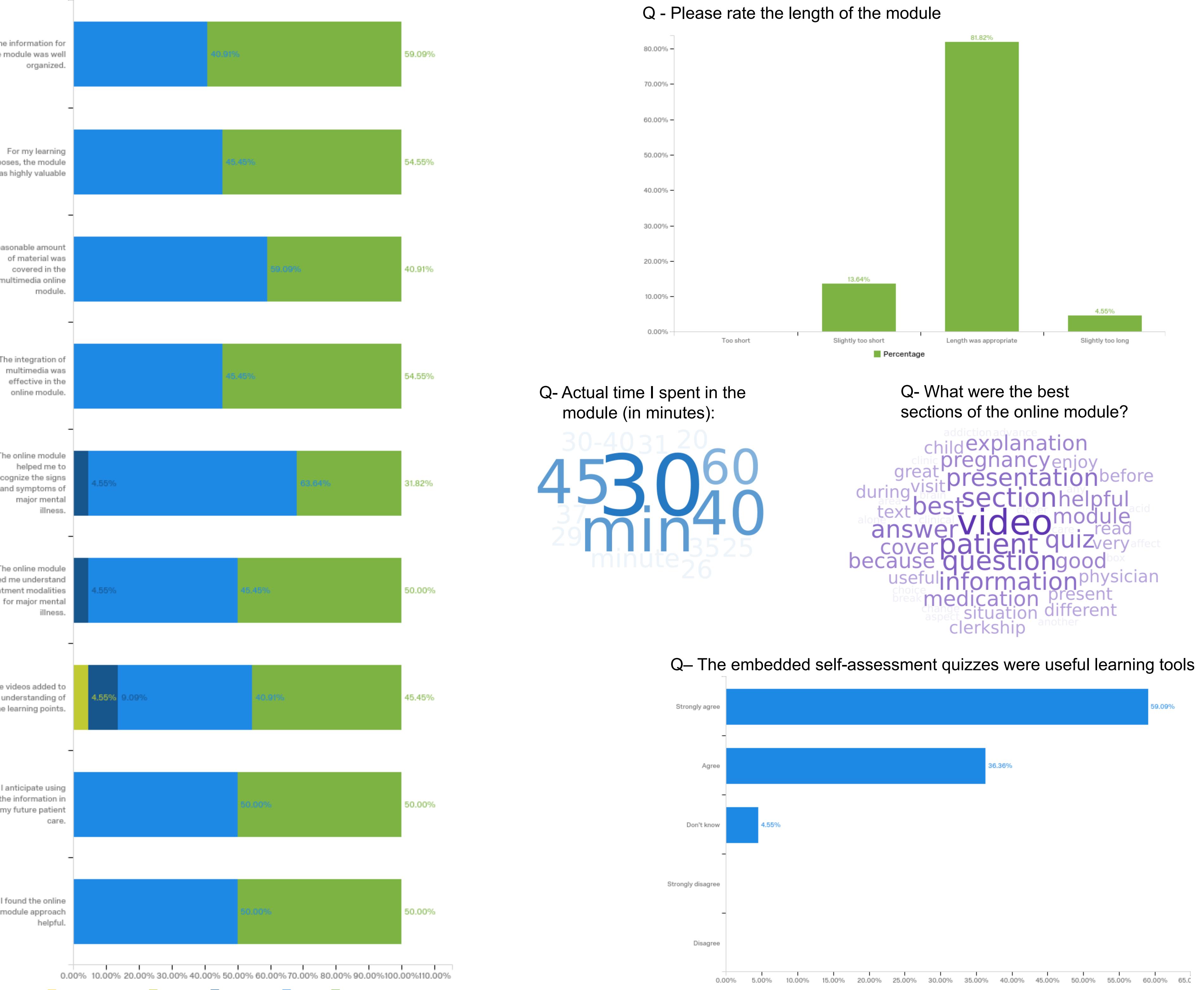
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Results

N= 22



Sample of Written Comments

Answers to survey open-ended questions about module use and perceived effectiveness:

Q.- In your opinion, what were the best sections of the online module? Why?

- Quizzes before, after and throughout; reiterated material and given opportunities to visit concepts after working through different parts of the module.
- I enjoyed watching patient presentations instead of reading a patient presentation because that is more similar to a clinical setting.

- Videos and explanations for the correct answer, which included explanations for why the other answers were incorrect.

The best section of the module was using medications in pregnancy. This aspect of care is not generally covered during our normal clinics during the psychiatry clerkship. It was valuable to cover this information in order to prepare for future situations and the shelf exam.

Q.- In your opinion, what were the worst sections of the online module? Why?

- Would have liked a template for the summary portion to organize all of the information since there was so much covered.

I thought all of the sections were done well. I did feel as though the supplemental material within certain slides, for example the Texas Medication Algorithm, were difficult to follow and therefore I just skipped over it.

I did not like answering questions that had more than one answer choice per question. It made it hard to learn from the question if you didn't get the question right.

I did not think that writing the summary of the case was as useful as the questions were.

Q.- What other topics would you like to see integrated in these online modules

- Other pertinent pharmacological concepts/AE's/drug interactions or contraindications.
- If you are looking to do more modules in the future, I think schizoid, schizotypal, schizoaffective, schizophreniform, and schizophrenia are good topics to review to help sort out the differences.
- Personality disorders, Pharmacology.
- Honestly, this is a great way to actively learn. I really enjoyed it and I think any topic would be successful in this type of module.

Conclusions

Feedback from students indicated a positive impact on the availability of these online modules; students were very enthusiastic about having this type of active learning option.

Being able to review materials, watch patient videos and answer quiz questions relevant to the concepts being taught throughout the module was an important feature for students.

Many students expressed that the length of the module was appropriate and considered that a reasonable amount of material was covered to help them recognize signs and symptoms of major mental illness and understand treatment modalities.

A majority of students expressed that they anticipated using the information learnt in this module for future patient care.

The main critical comments by students were related to not having a template available to write a summary of the patient case, or understanding its usefulness. Some students expressed that in some instances supplemental materials available in the module were difficult to follow and these students chose not to use it.

Additionally, many students did not like answering questions that had more than one answer choice per question. They felt it was hard for them to learn from the question, if they did not get it right.

Authors of this study will incorporate student's feedback into the next iteration and development of version 2.0 of the Psychiatry Mystery Module.

Innovation strengths: The online module provides standardization of instruction, ease of access and delivery (desktop/mobile), and reduces costs of program delivery across CHM Psychiatry Clerkship sites. The online format provides learners with greater access to active learning content, deliberate practice and more control of the educational experience.