Implementing a Student Confidence Index (CI) Rating in a Basic Science Course

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ABSTRACT

Objective of this study was to implement the concept of student confidence in performing a basic science course evaluation. Current evaluation strategies focus on using student perceptions of learning to evaluate a course. Although this is a valuable approach in the participating faculty, it fails to address student perceptions of their own learning. As student confidence can correlate to student performance (Shoemaker, 2010) and a core competency required of graduating osteopathic physicians is to recognize their limits and personal emotional knowledge (AOA Core Competency Report, 2012), knowing how the students perceive their learning may provide valuable feedback about the course. In 2016, Papa and Alexander presented a description of a confidence interval that allowed the students to describe their confidence in their ability to diagnose, treat, manage, and explain different patient presentations. These competencies are not appropriate to the OMS1 curriculum at KCU.

METHOD

We aimed to develop an instrument that would allow the students to reflect on their confidence when they were generating a confidence interval (knowledge level) and to then report on their level of confidence in their ability to diagnose, treat, manage, and explain different patient presentations. To examine student perceptions of their learning, we used a similar approach to the one that was used in the earlier study (Papa, 2016). In addition, all forms of the survey were pilot-tested on a small sample of students before implementation.

RESULTS

The Student Confidence Index as Delivered

• Open-ended questions and response options are available for different course evaluation frames.
• The confidence index is a tool to evaluate the student’s confidence in their ability to diagnose, treat, manage, and explain different patient presentations.

Objectives

The purpose of this study is to:

• Describe a process by which student perceptions of their own learning can be incorporated into an undergraduate basic science course evaluation.
• Share initial results from this form of course evaluation.

Background

Traditional course evaluations focus on student perceptions of teaching to evaluate a course. Although this provides useful feedback to the participating faculty, it fails to address student perceptions of their own learning. As student confidence can correlate to student performance (Shoemaker, 2010) and a core competency required of graduating osteopathic physicians is to recognize their limits and personal emotional knowledge (AOA Core Competency Report, 2012), knowing how the students perceive their learning may provide valuable feedback about the course. In 2016, Papa and Alexander presented a description of a confidence interval that allowed the students to describe their confidence in their ability to diagnose, treat, manage, and explain different patient presentations. These competencies are not appropriate to the OMS1 curriculum at KCU.

SOLUTION

Two faculty focus groups were created to identify the specific tasks the OMS1 students would be asked to rate their confidence in:

• Focus Group 1: Faculty who teach in the Principles of Clinical Medicine (OMS1 1 & 2 curriculum), Cardiovascular Medicine (OMS2), or the Pulmonary Medicine course (OMS3).
• Focus Group 2: Faculty who teach in the Cardiopulmonary 1 course.

Each Faculty Focus group worked separately at this stage of the process to develop a list of terms/tasks.

OUTCOME

• Task: Rate your confidence in your ability to define or locate the following: 52 terms were identified.
• Task: Rate your ability to explain:… 33 concepts were identified.
• Task: Create a flow chart: 37 processes were identified.

Faculty Challenge: Pare down the submitted items to a manageable evaluation. To accomplish this, all faculty were asked to identify the EIGHT most important concepts/terms from each list using an electronic survey (www.surveymonkey.com).

OUTCOME

• Task: Rate your confidence in your ability to define or locate the following: 10 terms were selected for further consideration.
• Task: Rate your ability to explain:… 10 concepts were selected for further consideration.
• Task: Create a flow chart: 5 processes were selected for further consideration.

Faculty Challenge: Further refine the evaluation by asking the faculty to rank the selected items from easiest (1) to hardest (10) using an electronic survey (www.surveymonkey.com).

OUTCOME

• 1 items: Rate your confidence in your ability to define or locate the following: 5 items were selected.
• 1 items: Rate your ability to explain: 3 items were selected.

In addition, a 3-tiered Likert scale was developed:
• “I am 100% certain I could ___ correctly,”
• “I am not sure I could ___ correctly,”
• “I don’t know I could ___ correctly.”

CONCLUSIONS

• Identifying the competencies the students were to be asked about was the most difficult aspect of creating the Student Confidence Index Evaluation form.

References


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