Assessment of an Integrated Drug Literature Evaluation Course.

John P. Bentley, Kim G. Adcock, and Kyle D. Null, The University of Mississippi

Objective: To evaluate students’ performance in a first-professional year course designed to introduce students to drug information resources and cover principles of biostatistics, epidemiology, and research design. The course was developed by two academic departments and used elements of team-based learning, independent learning, as well as more traditional instructional designs. About 50% of the course comprised basic and clinical biostatistics.

Methods: In addition to course-embedded assessments, students were asked to complete a 20-question research design and biostatistics knowledge test (originally developed for medical residents) at the beginning (pretest) and end (posttest) of the course. Several attitude/confidence questions also were included. Results: Class enrollment was 100; 98 completed both the pretest and posttest. The overall mean knowledge score was 30.6% at pretest and 50.2% at posttest ($p < 0.0001$). Both scores were significantly different than knowledge scores of medical residents (41.1%) and fellows/general medicine faculty with training in biostatistics (71.5%) previously reported in the literature. Commonly missed questions dealt with more advanced topics (e.g., survival analysis, multivariable adjustment). Several of the attitude/confidence measures also changed in a predicted manner. Although the size of the posttest-pretest difference score in knowledge was significantly related to class-performance variables (e.g., term paper scores, exam average), difference scores showed little correlation with most of the attitude/confidence measures at either pretest or posttest. Implications: This newly developed course appears to have some impact on attitudes, confidence, and knowledge. Although knowledge deficiencies are still evident, students showed improvement during the course and had scores comparable to medical residents.

Word count: 250