

Comparison of online versus in-person delivery of a pharmacy law course for third professional year student pharmacists

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Purpose:

Pharmacy law is necessary for the Doctor of Pharmacy curriculum. In addition to being required for accreditation, states require candidates for pharmacist licensure to pass a Multistate Pharmacy Jurisprudence Examination (MJPE). Technology presents opportunities to change the delivery of content to an online environment. This provides an atmosphere similar to professional experiences where pharmacists must complete independent learning. While this delivery method would provide professional development for students, instructors must ensure the students have similar outcomes across course offerings before transitioning solely to an online environment. This project was designed to compare educational outcomes resulting from online and in-person courses.

Methods:

An online pharmacy law course, developed at the Purdue College of Pharmacy, was offered as a course option in parallel with the traditional, in-person section. Both were offered as enrollment options to third professional year students during the Spring 2019 semester. Students chose the section of the course they wanted to enroll in, with no limit on student enrollment in either section. The design of the online law section mimicked the in-person section with the same credit hours, instructor, course text, assignments, exams, and study aids. The sole difference between the two sections of the course was the method for content delivery. Students in the online section received content via five optional learning modules, while students in the in-person section received material via two required 50-minute lectures each week covering the same topic areas. As part of the assessment of learning in the course, students were required to complete an initial comprehension check before being exposed to any course material, a final comprehension check after completion of all course material, and a mock Indiana MPJE as a cumulative final exam. The pre- and post-knowledge checks were administered to both groups as well as a mock MJPE was conducted at the end of the semester. The outcomes were improvement between knowledge checks and comparison of pre- and post- knowledge checks and mock MJPE scores between groups.

Results:

Twenty-six students self-selected to participate in the online law course while 107 students enrolled in the in-person course. The mean scores of the initial knowledge checks for the online and in-person students were 9.27 (SD=2.11) and 9.32 (SD=1.96), respectively. The online course resulted in a mean final knowledge check score of 13.38 (SD=2.21), an average increase of 4.12. The in-person course resulted in a mean final knowledge check score of 14.01 (SD=2.63), an average increase of 4.69. Thus, both groups demonstrated statistically significant improvements in knowledge scores (p-values < 0.001). When comparing across course offerings, no significant difference in initial law check, final law check, or mock MPJE scores were found indicating students in the different sections performed similarly regardless of the method of content delivery (p>0.05).

Conclusions:

An online pharmacy law course was a viable and effective alternative to an in-person course. No differences were seen in course outcomes across different modes of content delivery at one institution. Doctor of Pharmacy programs could benefit from the implementation of online pharmacy law courses to maintain ACPE accreditation and still adequately prepare students for the MJPE and pharmacy licensure.