INNOVATIONS IN TEACHING

“Fix the Law” Project: An Innovation in Students’ Learning to Affect Change

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Objectives. Create a long-term assignment in a required pharmacy law and ethics course that would help students to learn how to positively affect change while learning about the pharmacy practice regulatory and policy analysis processes.

Methods. In groups, students identified a law impacting the practice of pharmacy in need of “fixing,” then they proceeded through a formal policy analysis process to “fix it.” As the course progressed, students turned in consecutive pieces of their projects that corresponded with the steps in the policy analysis process, and were provided with constructive, developmental feedback from the course master.

Results. At the end of the quarter, student groups gave a 10-minute presentation about their project to the rest of the class. The 4 projects of highest quality were selected by a panel to be presented by the students at a Washington State Board of Pharmacy meeting. Student projects have led to changes in certain pharmacy laws in Washington State.

Implications. This assignment not only actively involves students in the pharmacy practice regulatory and policy analysis processes, but also helps them to be a part of changing how pharmacy is practiced in Washington State.

Keywords: educational innovation, action research, pharmacy practice law

INTRODUCTION

The American Council on Pharmaceutical Education (ACPE) publishes accreditation standards and guidelines that outline requirements for professional doctor of pharmacy degrees. These guidelines recommend that “the areas and content of the curriculum in pharmacy should provide the student with a core of knowledge, skills, abilities, attitudes, and values which, in composite, relate to the professional competencies….” Professional competencies, however, are not concisely defined and it is up to the discretion of individual schools of pharmacy to convey these competencies. Part of the University of Washington School of Pharmacy’s mission is to “…Prepare PharmD professional students for entry into a lifelong career in the profession of pharmacy.” The “profession of pharmacy” does not only refer to behaviors within the workplace, but includes behavior to advance the profession.

Pharmacists are governed by state pharmacy practice acts, as well as by other state and federal statutes and regulations. While pharmacy rules and regulations may be outdated, there is often no effective mechanism in place to reform them. Health care professions with large numbers of members such as medicine and nursing often have powerful lobbyists to advocate their particular interests at the state and federal levels; smaller professions like pharmacy, however, are not usually as fortunate. Thus, change needs to occur at the ‘grassroots’ level with individual pharmacists and pharmacy organizations. This process necessitates that pharmacy students learn how to affect regulatory change.

The required, 4-credit Pharmacy Laws and Ethics course at the University of Washington School of Pharmacy occurs in the fall quarter of the second professional year of the entry-level PharmD curriculum. During the course, students participate in a “Fix the Law” class project. The aim of this project is to have students identify a state or federal statute or regulation governing the practice of pharmacy that is not working efficiently or as it was intended and conduct a policy analysis in order to change it. Completion of the project also helps to facilitate leadership and teamwork skills.
METHODS

In the fall quarter of 2002, 77 students enrolled in the required Pharmacy Laws and Ethics course. During the first week of class, the course master thoroughly described the policy analysis project assignment. The pedagogic strategies for the course project involved activities that engaged the student in “authentic behaviors,” which are characterized in Bloom’s taxonomy. These included the cognitive, affective, and psychomotor domains and lead to action research directly influencing the practice of pharmacy (Figure 1).3

Students who enrolled in the course were divided into teams of 7 or 8 members. There were 9 weekly assignments that guided the teams through a policy analysis process to complete their projects. Detailed instructions for each assignment were available on a course Web site and were reinforced through brief question-and-answer sessions in class.4 Each team was encouraged to submit weekly progress reports to the course master via the course Web site.

Project Framework and Preparation

One of the goals of the project was to introduce students to the process of policy analysis as a tool that decision-makers use to contribute to or make a public policy decision. The actual analysis process affects many individuals and organizations as well as the public, so it is necessary to perform the analysis systematically. The guidelines and terminology that were used to develop the steps of policy analysis for the class project were adapted from standard policy analysis texts.5,7 Each of the 9 weekly assignments required to complete the project corresponded to steps in the policy analysis process.

In order to prepare students to adequately research their topic, health sciences, government publications, and law librarians devoted one 90-minute lecture period to demonstrate how to use internet-based resources including legal databases. These librarians have developed specific Internet resource lists for the class, including government publications of interest (eg, Federal Register, United States Code, Code of Federal Regulations, Revised Code of Washington, and Washington Administrative Code) and legal database utilities (eg, LegalTrac, and various Lexis-Nexis products).

Project Assignment/Policy Analysis Sequence

Each assignment was designed to be completed in 1 week or less. While students were not required to submit these weekly assignments, they were encouraged to adhere to the assignment schedule in order to break the project into manageable tasks. There was no limit on the length of each assignment, although most required writing only a few paragraphs. (An example of a group policy analysis project is available upon request from the author.)4

Assignment 1: Identification and description of topic. The first step in policy analysis is to identify a problem and provide a brief description of it. For this project, each student team was instructed to identify a seemingly problematic state or federal law that affected pharmacy practice. Once the law was identified, students conducted some preliminary research and discussed their idea with practice site preceptors and the course master to determine whether their chosen topic was feasible for the project. At this point, students were encouraged to select a different law if their first choice did not seem feasible for conducting a successful policy analysis. Students then submitted a brief project title and paragraph explaining the law that they would be analyzing, why the law was problematic, and the official citation/reference for the law.

Assignment 2: Problem definition. The second step of policy analysis is to define the problem. Students were asked to describe the problem with their identified law precisely and completely through a series of phases. First they determined the perspective they would take while performing the analysis; that is, would their team analyze the law through the lens of a pharmacist, patient, payer, or other affected party? For this assignment students also had to articulate the boundaries of the problem: How long had the problem existed? What were its historical antecedents? Was the problem linked to another, larger problem? Was it local, statewide, or
national? Next, students developed a fact base by gathering, documenting, and describing the evidence necessary to persuade others (eg, a legislator) of the existence and severity of the problem. Finally, students outlined their goals and objectives for resolving the problem as well as their methods for measurement of change, elucidating the policy envelope. What variables could be measured regarding the problem? Who were the persons or organizations with an interest in or who were at risk because of the problem?

Assignment 3: Evaluation criteria. Part of the policy analysis process includes evaluating the realities of changing policy. This assignment asked students to address several issues to help them critically evaluate the practicality of changing the identified law. They first discussed technical feasibility, in other words, whether the proposed policy could achieve its intended purpose. How would the project evaluators (eg, program administrators, legislators, professional associations) know whether the program had or would have its intended effect? To what degree could the proposed action accomplish the objectives set forth? Could changes observed in the “real world” be traced to changes in the policy or to other factors such as secular trends? Students then described the political feasibility of their proposal. Proposed policy changes must survive the political test. If decision makers, officials, or voters will not support a policy, it has little chance of being implemented. What alternatives were available? What concessions would have to be made in order to gain support for each alternative? Were there trade-offs that could be used to secure agreement on an alternative? Students also had to address administrative operability. Was the existing administrative system (eg, Board of Pharmacy) capable of delivering the policy or program? How much control did the administrative system have? Did the administrative system have the authority and resources to implement the policy? After addressing the aforementioned aspects of evaluating proposed policy change, students had the option of including a brief discussion of the economic and financial possibility. In this portion of the assignment, students assessed whether the costs of implementing the policy change were justified by the degree of improvement possible in the problem. If students had any comments on their perception of costs of the change, either positive or negative, they were encouraged to provide them for this assignment.

Assignment 4: Alternatives to existing law. This assignment required the students to suggest 3 alternatives to their identified problematic statute or regulation. This helped the students to contemplate alternative strategies to changing the law other than their primary solution that was formally articulated in the Evaluation of Alternatives assignment.

Assignment 5: Stakeholders. Students had to identify the stakeholders in the policy change, ie, the parties who would be impacted (eg, patients, health care providers, insurers, regulatory agencies, manufacturers). Seven or 8 different stakeholders were identified (one for each group member). The stakeholder(s) did not necessarily have to support the proposed policy change, but had to be impacted by the proposal. The stakeholder’s position could be positive, negative, or neutral. Students developed hypothetical questions to ask potential stakeholders to determine their position on the proposed change. The degree of political influence of the stakeholders was also assessed. Students were encouraged to contact real representatives of the identified stakeholder population to gather this information, though this was sometimes challenging.

Assignment 6: Evaluation of alternatives. This assignment utilized information collected for the Evaluation Criteria and Alternatives assignments. Students assembled the information into a table and were asked to evaluate certain aspects of the alternatives using a simple rating scale. They also indicated their choice for the best alternative to the proposed policy change. (The evaluation template table that was used is available by e-mail from the author.)

Assignment 7: Language of proposed ‘new’ law. Students developed appropriate legal language to revise their selected statute or regulation. They presented their revisions in a standard format (ie, new language is underlined and eliminated language is struck through). Their selected law could be modified, amended (new language added), or both.

Assignment 8: Report outline. Assignment 8 was a compilation of all previous assignments. The outline was presented as a formal outline with notes and references. The teams used the outlines when presenting their projects to the rest of the class. The outlines included a brief description of all the major assignments, but in a slightly different order (eg, introduction, problem definition, language of revised law, evaluation of alternatives, evaluation criteria, alternatives to existing law, stakeholders, and conclusion). Students were expected to develop some concluding remarks for their final report and presentation.

Assignment 9: Final report and presentation. The outline was expanded and written into a complete report (no more than 20 double-spaced pages). After completion of the final report, student teams presented their projects to the rest of the class, the executive director of the Washington State Board of Pharmacy, the course master, and the graduate teaching assistant. The format of the presentation portion of the project was at the group’s discretion. Most groups made PowerPoint
Table 1. Group Evaluation Rubric

<table>
<thead>
<tr>
<th>Score</th>
<th>Ability to work with the group</th>
<th>Amount of effort</th>
<th>Dependability</th>
<th>Intellectual Contribution</th>
<th>Overall Contribution to the Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Was disruptive to the group process</td>
<td>None</td>
<td>Highly dependent</td>
<td>Contributed little</td>
<td>Little</td>
</tr>
<tr>
<td>2</td>
<td>Participated, but wanted to go indifferent direction than the group</td>
<td>Undependable, sometimes helped, other times didn’t</td>
<td>Accomplished things late</td>
<td>✧</td>
<td>Minimum</td>
</tr>
<tr>
<td>3</td>
<td>Okay</td>
<td>About what was expected</td>
<td>Usually done on time</td>
<td>Was helpful</td>
<td>Average</td>
</tr>
<tr>
<td>4</td>
<td>Always participated, made sure everyone had a chance to participate</td>
<td>✧</td>
<td>Always on time</td>
<td>✧</td>
<td>Above average</td>
</tr>
<tr>
<td>5</td>
<td>Helped get the group moving without dominating it</td>
<td>Did the most work</td>
<td>Could be counted on to pick up the slack</td>
<td>Provided helpful, meaningful suggestions</td>
<td>Wouldn’t have been as successful without her/him</td>
</tr>
</tbody>
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Presentations, with individual group members presenting specific sections of the report. The groups making the best presentations (see criteria below) were invited to present their projects to the Washington State Board of Pharmacy at one of their meetings.

Project Grading Criteria

The project comprised 35% of the final course grade (25% for the report and presentation, and 10% for students’ evaluation of their own performance and that of each team member).

Final report and presentation. The course master, the executive director of the Board of Pharmacy, and the graduate teaching assistant evaluated the presentations. Items evaluated during the presentation included persuasiveness, organization of the presentation, adequacy of evidence, understanding of the existing law, and breadth of understanding of the proposed policy issues.

Group performance evaluations. Each member of the group evaluated themselves and other members of their group using the criteria and rating scale in the rubric presented in Table 1. Students were also given the option of completing anonymous midquarter evaluations of teammates. The course master collected and collated these evaluations in order to provide anonymous feedback to individual team members on how well they functioned on their respective team. The final evaluation of group members by each individual member was completed at the end of the quarter. The course master calculated an average “team” score for each member, then extrapolated this average to a possible 10 points. In order to eliminate the “halo” effect in peer evaluation and to encourage honest, discriminating evaluation, the course master told students that if they completed evaluations with perfect scores for more than 1 team member, their scores for all team members would be replaced with the average score for the group.

RESULTS AND DISCUSSION

The quality of the final projects was excellent. The students’ capacity to present cogent and persuasive verbal and written arguments for their proposed change, both in class, and for those selected before the Board of Pharmacy, seems to advance every year. Selecting the “best of the best” projects was a difficult task. For the 2002 class, the “point spread” on projects ranged from 21.75 to the maximum score of 25 (mode 24.25). Table 2 lists the titles from some of the best presentations in the 2002 and 2003 academic years.

It is challenging to obtain evidence that documents the effectiveness of the “Fix the Law” Project. Measuring success of the project objective, “to enable students to affect legislative reform as it pertains to their profession,” is extrapolated from actual utilization of student projects in the lawmaking process in the state of Washington. For example, one team’s project on computer-generated prescriptions was used by the Washington State Board of Pharmacy to develop language for an
Table 2. Projects Presented to the Board of Pharmacy in 2002-3

<table>
<thead>
<tr>
<th>Topic</th>
<th>Brief Description</th>
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</thead>
<tbody>
<tr>
<td>Notation Of Purpose On Prescriptions</td>
<td>To improve care, reduce medication errors, facilitate insurance communication; confidentiality issues</td>
</tr>
<tr>
<td>Technician Examination / CE</td>
<td>All pharmacy technicians should be required to pass standardized competency examinations and participate in CE</td>
</tr>
<tr>
<td>Prescribers’ Agent For Hospice Patients Prescriptions</td>
<td>Define who is considered prescriber’s agent for hospice prescriptions, faxed and verbal</td>
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<tr>
<td>Two Line Prescription Form</td>
<td>Two line prescription form biases prescribers such that “dispense as written” is more likely to be signed</td>
</tr>
<tr>
<td>Rescheduling of Carisoprodol to C-IV</td>
<td>Students developed a formal petition to the Washington State Board of Pharmacy</td>
</tr>
<tr>
<td>Eliminating Name and Strength on Prescription Label</td>
<td>Revoking an outdated provision of the practice act that permits elimination of drug name and strength on a prescription label</td>
</tr>
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</table>

“electronic prescription bill.” Language from another project was used to develop a “legible prescriptions bill,” better known as the “scribble bill.” Additionally, the Washington State Board of Pharmacy recently approved a petition by the Pharmacy Laws and Ethics class of 2002 to reschedule carisoprodol. Anecdotally, a staff attorney assigned to the Board of Pharmacy has used language from various projects in developing legislation. These examples may be early indicators of student learning and of real practice impact, but the most compelling evidence of learning would be demonstrated by students’ policy activities after graduation. Unfortunately, these data are difficult to obtain.

Standard university course evaluations administered at the end of the quarter, which included an area for comments, demonstrated mixed reviews of the project. Students commented negatively about the amount of time it took to complete the project and the challenges of working collaboratively with a large team. This first comment was not surprising, since most pharmacy students have a full curriculum and might want to eliminate the parts that are the most time consuming or for which there is no perceived instantaneous gain. However, other comments indicate that students’ horizons had been expanded. Not only have students commented about learning a great deal about pharmacy laws, but they have also mentioned learning about how to affect regulatory reform. This learning was evidenced by comments such as “I learned about the law, how it works, and how laws are passed.”

We recognize the need for evidence to support lasting outcomes of the project. It may be feasible for us to systematically collect longitudinal data regarding legislative activity of students who have taken the course. We could also collect data on students’ activity in leadership roles within pharmacy organizations after graduation.

Evidence to support that this was an innovative teaching tool was also difficult to obtain. In order to confirm that this project was a new method that enabled students to learn the machinations of legislation and provided them with tools necessary to reform laws pertaining to their profession, it would be necessary to state that this type of tool has not been used previously. This type of course-level information is not widely available. A review of the pharmacy literature databases revealed no citations that indicated such a project is or has been utilized. The course is updated each year based upon experience and students’ comments obtained from the course evaluations. Students’ comments were reviewed and potential changes for the subsequent year were discussed. Previous project specific changes included reduction of the group size from ~11 to 7 or 8 because the students preferred smaller groups. Also, the students submitted their assignments on paper or via e-mail. Now, Web resources allow the students to submit their assignments via the course Web site. Finally, the course master expanded the project options to include petitions to the Board of Pharmacy (or potentially to others), comments on Notices of Proposed Rulemaking in the Federal Register, and requests for Attorney General opinions (via petition to the Board).

During the fall 2003 session, writing skills and group dynamics issues were prominent. The first professional year curriculum has been changed to address writing skills. To address group dynamics, there will be mandatory semi-weekly meetings with the course master and each individual group. Previously, meetings with the course master occurred only if a group requested them.

CONCLUSIONS

Pharmacy curricula frequently incorporate a law course in order to comply with ACPE accreditation standards and American Association of Colleges of Pharmacy curricular recommendations. The syllabi may
only include review of state and federal statutes and regulations, and the lawmaking process may be overlooked. The faculty members who teach the Pharmacy Laws and Ethics course at the University of Washington School of Pharmacy believe that pharmacists need to be involved in the processes that govern their profession. The “Fix the Law” Project provides a framework for future pharmacists to identify problematic statutes or regulations, analyze the problem systematically, and craft a proposal that could seemingly be adopted to impact pharmacy practice. During this process, students develop their problem-solving and analytical skills, group and teamwork skills, and formal presentation skills. Course faculty members have found that the quality of the students’ work is excellent. The broad base of pharmacy law and the regulatory process that is presented in this course prepare the pharmacy students to participate fully in their chosen profession.

ACKNOWLEDGEMENTS

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REFERENCES