TEACHERS’ TOPICS

A Novel Structured Format for Engaging Pharmacy Students in Bioethics Discussions

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Objective: To describe an active, structured ethics/professionalism discussion format developed for an elective course titled Ethics and Professionalism in Pharmacy.

Design: The format uses the acronym ETHICS (Evaluate, Teach, Hear, Interview, Concede, Self-reflect). Before class, students evaluated (Evaluate) literature pertaining to ethics/professionalism topics. Class consisted of faculty-led ethics/professionalism lecture (Teach), student-driven, case discussion, and online self-reflection. Guided by Hear, Interview, and Concede, groups addressed cases from stakeholder perspectives (patient, pharmacist, etc.) considering ethical rules and principles. At the end of class, students answered self-reflection questions. Precourse and postcourse surveys evaluated the impact on students’ perceptions of ethical and professional tenets.

Assessment: The format allowed students to actively engage in ethics/professionalism discussions, transforming class into an interactive, structured, student-centered session with self-reflection.

Conclusion: The format allowed application of concepts to controversial situations. Although the format was created for a pharmacy elective, it is adaptable to any teaching situation.

Keywords: ethics, professionalism, pharmacy practice, elective

INTRODUCTION

National surveys have revealed deficiencies in formal, systematic ethics and professionalism education in pharmacy school curricula. In a 2004 survey of pharmacy schools, Latif found that students did not progress in terms of ethical reasoning from the first to third professional year.1 Sylvia identified a systemic need for increased substantive coursework in professionalism.2 While students at our university are introduced to professionalism concepts during orientation and exposed to ethics during a pharmacy law course, they have limited exposure to these concepts prior to their final year of advanced pharmacy practice experiences. The ethics and professionalism course described in this paper is an effort to at least partially address this need in the curriculum.

In creating an elective ethics and professionalism course, we envisioned a course that would introduce students to foundational information and provide repeated opportunities to apply concepts in discussions with peers and faculty members. To do this, course coordinators created the “ETHICS” format (described below), which was used to engage students and help them consider choices in the context of ethical principles. Similar course formats have been described in pharmacy curricula in the United Kingdom and Saudi Arabia.3,4 In the latter, students reported that role playing helped them better understand and remember ethical issues.

In this paper, we describe the development and implementation of an active, structured ethics and professionalism discussion format within our Pharmacy Ethics and Professionalism elective course, including precourse and postcourse survey data to assess the impact on student perceptions of ethical and professional concepts. Our hypothesis was that a structured format focusing on group discussions of case scenarios would lead to changed perceptions of ethical and professional concepts involved in the delivery of health care.

DESIGN

Pharmacy Ethics and Professionalism is a 2-credit summer elective course offered to professional first year (P1) students in our 3-year accelerated doctor of pharmacy program. The course included students from our main and satellite campuses and was coordinated by 5 full-time pharmacy practice faculty members. At least 1 course coordinator from each campus was present each
week to facilitate the ETHICS portion of the class. Class was held once weekly over a 2-hour, 50-minute time period. The course was built around 7 essential questions (Table 1). Course goals and objectives, along with how they link to the course essential questions, are described in Table 2.

The first 3 weeks of the course introduced the tenets and theories of bioethics and professionalism and began to illuminate how these concepts might be integrated into various areas of health care (Table 3). Students were slowly introduced to the ETHICS format by course coordinators. Students were randomly assigned to groups of 4 to 6 and were expected to work with that group throughout the course. Students were only grouped with students on their own physical campus. Weeks 4 through 10 followed the ETHICS format entirely. There was no required textbook; instead, faculty members typically assigned short readings that were specific to their topic. Readings were posted on the course Blackboard site at least 1 week before class.

ETHICS is an acronym that stands for Evaluate, Teach, Hear, Interview, Concede, and Self-reflect. Each class was broken down as follows: first 50 minutes (Evaluate/Teach), second 50 minutes (Hear/Interview/Concede), and final 50 minutes (Self-reflect). For the concept of Evaluate, students were assigned readings related to the week’s topic 1 week prior to most class sessions (Table 3). Students were instructed to critically review readings before class and were expected to come to class with a defined baseline of knowledge on the day’s topic(s). Unannounced quizzes assisted in motivating students to prepare prior to class. For the concept of Teach, faculty members used a mix of lecture and active-learning techniques to convey relevant points about the day’s topic(s). Faculty members presented one or more cases that would be utilized during the group discussion portion of class (described below). Students were instructed to individually examine each case and gather relevant facts pertaining to the case by asking the faculty members questions. A 10-minute break followed the formal teaching period.

Twenty-five minutes of class time was devoted to the Hear portion of class. Students gathered in their assigned groups to discuss the case(s). Each group was assigned 1 bioethics principle (eg, respect for autonomy, nonmalef- sance, beneficence, or justice) or rule (eg, veracity or fidelity) and asked to discuss the aspects of the case related to that principle or rule. Each group member was assigned to a specific party in the case (ie, patient, family member, patient’s contacts, other health care professionals, the profession, the insurer, or the employer) and asked to view the case from that party’s point of view. To facilitate discussion, students were encouraged to consider “The Four Topics,” a set of grouped questions meant to facilitate ethical discussion in clinical medicine. Discussion rules were as follows: Each student had 3 to 5 minutes of uninterrupted time to discuss the viewpoint from their party’s perspective. Once all students had an opportunity to share, the group proceeded to Interview. The next 15 minutes were devoted to open group discussion. Students had the opportunity to ask questions of each other and faculty members encouraged further discussion. To prepare for the next portion of class—Concede—students were instructed to formulate options for the patient or situation, choose one of the options, and rationalize a defense for that option. Over the next 10 minutes of class, a student from each group presented a verbal concession, decision, or synopsis on the case to the entire class with the supporting rationale determined during group discussion. The group member would announce the principle or rule the group was representing and then provide the group’s viewpoint to the class. Students and faculty could ask questions of the group following each presentation.

The final 50 minutes of class was devoted to Self-reflect and conducted using Blackboard. Students completed a reflection on the day’s discussion in Blackboard. Students answered coordinator specified self-reflection questions (Table 4) adapted from the Critical Classroom Incident Questionnaire. Facilitating faculty members could add 1 self-reflection question that was specific to the day’s topic. Self-reflections had to be posted on Blackboard by 8:00 PM on the day of class to receive credit.

While the ETHICS format was the framework for each class session, faculty members had the freedom to make minor modifications to the structure as befit a given topic. However, the basic framework of teaching, small-group case discussion with assigned perspectives, and
self-reflection were maintained. Additionally, the emphasis of this course was to introduce ethical and professional concepts and allow students to discuss them in the context of cases in a relatively structured and efficient manner. It was less important that students strictly adhere to all of the discussion rules. Hence, participating faculty members did not actively interfere with deviations from those rules unless redirection or refocusing was necessary.

A precourse and postcourse survey was distributed to the class to evaluate changes in student perceptions of ethical and professional tenets. The survey consisted of 19 Likert-scale questions and 1 free text question asking students to describe a core principle of the Oath of Pharmacist (Appendix A). The survey was distributed on the first day of class (during course orientation and prior to the delivery of any course content) and on the last day of class. Surveys were distributed during both the 2011 and 2013 summer semesters during which the Pharmacy Ethics and Professionalism elective course was taught.

The survey was approved by our University Institutional Review Board. Additional classroom assessment techniques (CAT) were utilized at the discretion of each participating faculty member and often incorporated into the self-reflection segment of the course.

Students were required to be present in class to participate in active-learning activities and group discussions. Attendance was taken during each class, accounting for 10% of the student’s overall grade. Unannounced quizzes were administered during selected class sessions and accounted for 20% of the overall grade. Weekly self-reflections, as described in the ETHICS format, were evaluated each week by course coordinators using a rubric created by the coordinators (Appendix B) and worth 40% of the overall grade. Course coordinators divided the class into evaluation groups for all written work for the semester, which this allowed faculty members to evaluate the same students and distributed the workload among coordinators. The remaining 30% came from a midterm and final essay

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Part I: Introduction to the course, ethical theory, methods of justification in clinical bioethics, theories, principles, rules</td>
</tr>
<tr>
<td></td>
<td>Part II: Code of Ethics, defining professionalism, tenets of professionalism, professional decision-making process</td>
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<tr>
<td>2</td>
<td>Ethics in practice: connecting clinical bioethics to pharmacy practice and managed pharmacy practice</td>
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<td>3</td>
<td>Professionalism and accountability: conscience clause, organizational and business ethics</td>
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<tr>
<td>4</td>
<td>Case discussion and application: genetics and pharmacogenomics</td>
</tr>
<tr>
<td>5</td>
<td>Case discussion and application: beginning and end of life decisions</td>
</tr>
<tr>
<td>6</td>
<td>Case discussion and application: human rights and health care, capacity and consent, confidentiality, vulnerable patient groups</td>
</tr>
<tr>
<td>7</td>
<td>Case discussion and application: resource allocation, global availability of medicines in developing countries</td>
</tr>
<tr>
<td>8</td>
<td>No Class: July 4th Holiday</td>
</tr>
<tr>
<td>9</td>
<td>Case discussion and application: research ethics and clinical trials, animal research, pharmaceutical industry</td>
</tr>
<tr>
<td>10</td>
<td>Case discussion and application: pharmacists as leaders</td>
</tr>
</tbody>
</table>

Table 2. Goals and Objectives Matched to Course Essential Questions

<table>
<thead>
<tr>
<th>Objective</th>
<th>Related Essential Questions</th>
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<tbody>
<tr>
<td>Relate principles of professional behavior to the Oath of the Pharmacist and the practice of pharmacy</td>
<td>1, 2, 3</td>
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<tr>
<td>Demonstrate professionalism through the provision of effective written and verbal communication and employment of active and empathetic listening techniques</td>
<td>1, 2, 3</td>
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<tr>
<td>Examine foundational principles that connect ethical decision making to various types of pharmacy practice</td>
<td>4</td>
</tr>
<tr>
<td>Discuss and reflect upon ethical issues via the ETHICS format as they relate to the delivery of patient care, end-of-life care, clinical research, development, promotion, sales, prescription, and use of drugs across a wide variety of practice settings</td>
<td>4, 5, 6, 7</td>
</tr>
<tr>
<td>Examine various ethical dilemmas from the perspective of the 4 principles of bioethics (respect for autonomy, nonmalfeasance, beneficence, and justice), rules of ethics (veracity or fidelity) or other ethical theories</td>
<td>4, 5, 6, 7</td>
</tr>
<tr>
<td>Resolve case scenarios of ethical issues in interprofessional and intraprofessional practice through both fictional case discussion and peer-evaluation of students</td>
<td>6, 7</td>
</tr>
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(15% each), which students had at least 2 weeks to complete and both of which could be completed as take-home assignments. Themes of these assignments were based on discussed ethical and professionalism tenets; a coordinator-created rubric was used in their evaluation. The rubric is not being described here as these assignments do not directly pertain to the ETHICS format.

EVALUATION AND ASSESSMENT

The elective course Pharmacy Ethics and Professionalism was offered during the 10-week summer semester at our university in 2011 and 2013. A total of 49 students were enrolled and completed the course. Forty-six of the 49 (93.9%) completed the precourse survey and all enrolled students completed the postcourse survey (49/49). Mean and median responses between the surveys for each of the 19 questions were evaluated. Responses to question 20, which was a free-text question regarding the content of the Oath of Pharmacist, were examined. Results of the student surveys can be found in Table 5. Mean responses to survey items were analyzed to detect significance using 2-sided \( t \) tests and median responses were examined to detect any changes precourse and postcourse. Two items showed a significant change in mean responses. There was an increase in agreement that professionalism is best defined as a call to serve the public following the completion of the course (question 4: 3.8 vs 4.2, \( p=0.03 \); median Likert response 4 precourse vs. 4 postcourse). Following completion of the course, there was less agreement that ethical actions and decisions are based on factual assessments of a particular situation (question 6: 3.3 vs 4.2, \( p=0.01 \); median Likert response 4 precourse vs. 4 postcourse).

Based on changes in median responses, agreement increased that ethical actions and decisions are based on personal philosophies, morals, and values (question 10: 3.1 vs 3.5, \( p=0.17 \); median Likert response 3 precourse vs. 4 postcourse). Agreement decreased that an ethical decision takes into consideration what is right or wrong (question 13: 4.4 vs 4.2, \( p=0.45 \); median Likert response 5 precourse vs 4 postcourse) and that health care providers have a moral obligation to take actions that will provide the best outcomes and the fairest chances to all of their patients as a whole (question 19: 4.5 vs 4.2, \( p=0.09 \); median Likert response 5 precourse vs. 4 postcourse). The remaining questions showed neither a significant change in mean or median Likert responses when comparing precourse and postcourse surveys. Regarding
question 20, after the course, 8 students could identify at least one aspect of the Oath, compared to 5 students at the start of the semester.

The course was consistently well attended by all students and weekly reflections were consistently completed according to the guidelines expressed in the syllabus. While student course evaluations obtained via the university course evaluation system were positive, there were too few responses to be considered representative of the class.

DISCUSSION

The importance of bioethics and professionalism in pharmacy curricula was repeatedly outlined in the 2004 Center for the Advancement of Pharmacy Education (CAPE) Educational Outcomes, where all 6 subheadings within the 3 major domains included the following statement: “Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.” Similarly, the Accreditation Council for Pharmacy Education (ACPE) Competencies require all doctor of pharmacy graduates be able to provide patient care while taking into consideration relevant ethical and professional issues (Standard 12). The newly revised 2013 CAPE outcomes refer to bioethics in Domains 3.5 (Cultural Sensitivity) and 4.1 (Self-Awareness), and professionalism in Domain 4.4 (Professionalism).

Various formats for teaching ethics and professionalism to health care students have been described, including small-group case discussion, peer-review, role-play, and self-reflection. While ethical concepts can be communicated via lecture-style presentations, exposure to ethically-challenging situations allows students to visualize and reflect how actions affect others and society as a whole. Rosenstein and colleagues found that psychiatric fellows, following the completion of a course on ethics, showed a desire for a more interactive format.  

We have described the development and implementation of an elective course with structured framework for addressing needed instruction related to the ethical and professionalism concepts requisite to health care delivery. The ETHICS format provided students with consistent opportunities to discuss case scenarios and apply concepts of ethical and professionalism learned through assigned readings and faculty-driven lectures.

Only 2 survey items (questions 4 and 6) showed significant changes in mean responses with an additional 3 showing nonsignificant changes in mean responses, but changes in median Likert scale responses (questions 10, 13, and 19). More students agreed that professionalism is a call to serve with which professionals are entrusted—an expected change given the emphasis of the course. Fewer students agreed that ethical decisions are based on factual assessments of particular situations. This may have indicated that students realized another person’s perspective could affect their decision-making as they were asked to view cases from various points of view during discussions. This response trend may also have shown that students developed a greater appreciation for the fact that different options have ethical “weights” which must be considered. More students agreed that ethical actions and decisions are based on personal philosophies, morals, and values, suggesting that students were more aware of their own biases and differences in personal philosophies. Agreement may have increased because students acknowledged that ethical actions and decisions are often subconsciously affected by personal philosophies. Students agreed less that ethical decision-making takes into consideration what is right or wrong, because they may have developed a greater understanding that difficult choices in health care may not always be easily labeled as categorically right or wrong. Finally, there was a decrease in agreement that health care providers have a moral obligation to take actions that will provide the best outcomes and the fairest choices to all of their patients as a whole. Our explanation for this decrease is that difficult cases were discussed where the potential best choice for an individual patient was not necessarily the best choice for all patients when the institution’s or society’s perspective was considered.

Limitations of the data include a low number of participants (n = 49) and the use of a Likert scale. Some of these findings may be confounded by the fact that this was an elective. Our elective selection system is a “first-come, first-served” process, and students enrolled may have included those not particularly interested in the course content. Results may have also been confounded by background prepharmacy course work or individual experiences that may have predisposed students to increased knowledge or perceptions of ethical and professional concepts.

While some of the changes in survey responses, or lack thereof, were unexpected, it must be emphasized that the ETHICS format was not structured to help students develop a systematic process for arriving at best or correct answers to cases, but rather to keep students on task, encourage respectful dialogue, and ensure accountability. In other words, the emphasis was not on trying to make students ethicists or philosophers, but rather to get students discussing the information and understanding that professional behavior requires thoughtful considerations of actions and decisions. We strove to have students understand their professional standing requires reflection on their actions, regardless of the gravity or difficulty of the situation. Ultimately, we wanted this course to reinforce the professional development of the students enrolled.
The Pharmacy Ethics and Professionalism elective and ETHICS format increased exposure of limited, yet important content for future pharmacists. Additionally, the structured format allowed students to engage one another and discuss concepts in a manner that would better prepare them for complicated health care scenarios encountered during practice experiences. Finally, the ETHICS format could be used for a variety of health care disciplines and could facilitate interprofessional education initiatives. In fact, the development of an interdisciplinary seminar to teach professionalism to multiple health care disciplines has been described previously. The ETHICS format could serve as a functional complement to such a seminar or act as the cornerstone to a required or elective course in various health care profession curricula.

SUMMARY

Providing an elective course with the ETHICS format addressed an identified need for more systematic ethics and professionalism education within our curriculum, enhanced the overall curriculum at our university, and provided students with increased opportunities to critically think and problem solve complicated and complex real-life patient scenarios related to bioethics and professionalism.

REFERENCES

Appendix A: Pharmacy Ethics and Professionalism Student Perception Survey

Using the following scale of 1 to 5, with “1” denoting complete disagreement and “5” denoting complete agreement, please indicate your level of agreement with the following 19 statements: (1-Completely disagree; 2-Disagree; 3-Neutral; 4-Agree; 5-Completely agree)

SURVEY STATEMENTS
1. The ability to act as a professional is a skill that someone inherently possesses (ie, cannot be taught).
2. The ability to act as a professional is a skill that can be taught and learned.
3. The concept of adhering to rules is synonymous with the concept of acting professionally.
4. Professionalism is best defined as a call to serve the public with which the professional is entrusted.
5. The concept of ethical practice can be succinctly defined across all scenarios and situations.
6. Ethical actions and decisions are based on factual assessment of a particular situation.
7. Acting in an ethical manner should be an emphasis in the career of a pharmacy student in the P1 or P2 year.
8. Acting in an ethical manner should be an emphasis in the career of a pharmacy student in the P3 year.
9. Acting in an ethical manner should be an emphasis in the career of a pharmacist.
10. Ethical actions and decisions are based upon personal philosophies, morals, and values (ie, they are personal decisions).
11. An ethical decision is a decision that provides the greatest good for the most people.
12. An ethical decision is a decision that is based on the rights of an individual.
13. An ethical decision is a decision that takes into consideration what is right and what is wrong.
14. An ethical decision is a decision that is derived from traditions or political practices.
15. An ethical decision allows for room to care about a given individual.
16. Patients should have the freedom to make decisions that affect them.
17. Health care providers have a moral obligation to make decisions that will not harm a patient.
18. Health care providers have a moral obligation to take actions that will benefit a person or group.
19. Health care providers have a moral obligation to take actions that will provide the best outcomes and the fairest chances to all of their patients as a whole.
20. Describe one core principle found in the Oath of the Pharmacist (free text response).

Appendix B: Grading Rubric for Weekly Blackboard Self-reflections

<table>
<thead>
<tr>
<th>Category</th>
<th>Excellent (1)</th>
<th>Satisfactory (0.5)</th>
<th>Poor (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of questions</td>
<td>Response provided for all reflection questions</td>
<td>Response provided for at least 3 to 5 reflection questions</td>
<td>Response provided for ≤ 2 reflection questions</td>
</tr>
<tr>
<td>Total: __/1 x 2 = __</td>
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<td></td>
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<tr>
<td>Grammar/Spelling</td>
<td>Responses are free of distracting grammar/spelling errors (≤ 2)</td>
<td>Responses contain some distracting grammar/spelling errors (3 to 5)</td>
<td>Responses contain many distracting grammar/spelling errors (&gt; 5)</td>
</tr>
<tr>
<td>Total: __/1</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Quality of response for faculty choice question</td>
<td>Response fully integrates point(s) from the readings and/or case discussion, demonstrates thoughtful/insightful analysis, and provides a definitive conclusion</td>
<td>Response somewhat integrates point(s) from the readings and/or case discussion, demonstrates some analysis, but does not provide a clear-cut conclusion</td>
<td>Response does not integrate point(s) from the readings and/or case discussion, does not demonstrate thoughtful/insightful analysis, or lacks a conclusion</td>
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<tr>
<td>Total: __/1 x 2 = __</td>
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Point total: ____ Comments: