

Design of a New Professional Practice Laboratory Course Using Standardized Patients

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At the University of Toronto, a course was developed for senior level students emphasizing the direct patient care aspect of practice. The first section outlines principles behind the design of the course. The second presents the seminar format, a series of student-directed activities involving peer teaching and simulated patient care. The third addresses assessment of the student including global performance rating, case write-ups and documentation. The fourth addresses strengths and problems encountered, especially related to organization, logistics and workload. A course outline and description of the 'Family Tree,' which provides the foundation for the course, are appended. An example case illustrates the nature, depth and complexity of cases. Students stated in their course evaluation summary and anecdotal feedback that patient care simulations better equipped them for the demands of clerkship rotations than traditional paper cases did. They found the course relevant, preparing them well for pharmacy practice in the future.

BACKGROUND

In 1994, the Faculty of Pharmacy at the University of Toronto began a new 4+1 year undergraduate pharmacy program, leading to the entry level degree for practice, the BSc Pharm. The relative emphasis in the new curriculum focused upon the provision of pharmaceutical care as one of its main objectives. A sequenced curriculum was developed, involving courses in the pharmaceutical sciences, social and administrative sciences and in pharmacy practice. In developing this new curriculum, particular attention was paid to the needs of practitioners who would provide direct, primary care to patients.

New courses were developed, in all four years, with a strong emphasis on pharmacy practice and social-administrative pharmacy courses, in order to equip students with the skills necessary to carry out the responsibilities implied by pharmaceutical care. The didactic, faculty-based portion of the curriculum is complemented by the final Structured Practical Experience Program (SPEP), consisting of two eight-week clinical placements in the final semester of the program.

To facilitate the transition from the faculty-based program to the SPEP, and to consolidate learning from the previous three and a half years of the program, a new course was developed. Pharmacy Practice Seminar is a continuation of the professional practice and pharmaceutical care series of courses. It is an integrated course drawing upon materials from all four years of the pharmacy program in which students must recall and apply material from a variety of courses, including, Clinical Biochemistry/Pathology/Pathophysiology, Pharmaceutics, Jurisprudence and the Social-Administrative Pharmacy courses.

Upon completion of the course, students are expected to be able to assume direct, supervised care responsibilities in community and hospital pharmacy practices. The purpose of

the course is to provide students with an opportunity to learn and practice patient care skills in a controlled manner with standardized patients (SPs) (see Appendix A) acting as patients and facilitated by trained pharmacist teaching assistants (TAs). SPs (actors) also provide feedback on patient management issues as well as the communication technique and interpersonal skills of the student. TAs provide feedback on pharmacotherapeutic decision making.

SPs have been used extensively in medical education since the mid-1970s(1) in response to concerns regarding assessment of basic clinical skills of medical students and licentiates. Traditionally, SPs have been used within the confines of an Objective Structured Clinical Exam (OSCE) as a way of assessing clinical competency(2). To improve inter-rater reliability and validity of observer ratings, examiners use a checklist of items expected to be demonstrated by a candidate which they mark while observing each individual performance(3). Given the resource intensive nature of SPs, their use initially was limited to summative evaluation in medicine.

The use of SPs in pharmacy education was reported in the early 1980s(4) as a teaching tool. In providing formative as well as summative evaluation to pharmacy students, the potential role for SPs within undergraduate health sciences education was expanded. While they continue to be used as one method for the evaluation of clinical skills(5), the possibility of using SPs as teachers intrigued us. Despite being traditionally seen in a high-stakes evaluative setting, such as licensing exams or continuing competency reviews(6), students are generally positive about their role in undergraduate education(7). Consequently, when developing a new professional practice laboratory course for senior-level undergraduate students, we were aware of the role SPs could play in providing both summative and formative assessment.

SEMINAR FORMAT

The seminar format is unique. It differs substantially from previous professional practice courses which tend to be "dispensing lab" focused. Students work in groups of ten, each group with a trained pharmacist-TA. Each week, for ten consecutive weeks, a specific therapeutic topic, physiological system or cluster of conditions is studied. (See Appendix B for course outline.) Prior to attending each seminar, students are expected to complete a pre-seminar assignment—a series of guided discovery questions, which provide a structured review of material pertaining to the topic. These questions draw upon material from a wide variety of courses. They focus not simply on therapeutics, but also pharmaceuticals, clinical biochemistry, pathology, pharmacology and jurisprudence. A sample case and prompt is shown in Appendix C.

On a rotating basis, each week, one student is assigned the role of primary facilitator. In order to optimize use of the three hour Seminar time, each session is divided into six 30-minute sections. For the first 30 minutes, the student-facilitator is given the task of reviewing the pre-seminar assignment and providing an overview of basic pharmacotherapeutic issues associated with the seminar topic to the group. This overview is meant to be broad, embracing material from pharmacology, medicinal chemistry, clinical biochemistry/pathology/pathophysiology, etc. Ideally, the student-facilitator should conduct a modified needs assessment of the group in order to identify the areas which require further discussion or clarification for the particular therapeutic topics. [In practice, this needs assessment proved to be too difficult and onerous to conduct and Facilitators were directed by the course coordinator to focus on specific issues.]

Following this review, the next two hours of the seminar are devoted to Standardized Patient Encounters (SPEs). The purpose of the SPE is to provide students with as authentic an interaction as possible. Peer role-playing, which has been relied upon heavily in years one, two and three, is simply not realistic and, by senior year, is difficult to take seriously. SPs, are trained (Appendix A) by the University of Toronto's Department of Family and Community Medicine to present with drug-related problems, providing an opportunity to practice pharmacy care in a controlled, low stakes environment. During any one seminar, four of the ten students will have an opportunity to interview the SP to determine actual or potential drug related problems. During the ten-week course, each student will interview four different SPs.

During the seminar, a variety of pharmacy practices are simulated. Unlike previous "dispensing lab" experiences (which tend to simulate a community pharmacy setting), patient care is simulated in teaching hospital, community hospital, public health clinic, community pharmacy and home care situations. As a result, for some encounters, detailed laboratory and blood work is available and must be used by students in assessing patient's needs. For other encounters, modified forms of physical assessment and observation are used. In all cases, SPs are given a 'script' detailing not only their character and history, but also their character's drug related problems. These scripts are written by practicing pharmacists, based on their real-life community or hospital based experiences. The case content is validated by Faculty members to ensure accuracy of content and appropriateness for students at this level.

Cases are specifically meant to recall challenging practice situations. While various practices were simulated, resource constraints meant that the actual physical environments (e.g., a hospital room, a community pharmacy) could not be. University classrooms were used, with chairs arranged in a circle to facilitate optimum participation.

Role playing for the entire course revolves around the care of one particular family—The Osbaldestons (see Appendix D). During the ten weeks of the seminar, different family members from different generations of this family present to the student pharmacists with potential or actual drug related problems. To emphasize continuity, family members sometimes ask questions on behalf of other family members, or are primary caregivers for others. The group is expected to follow the care of this family for all ten weeks. They must be prepared to address the needs of the entire family, not just the individual presenting in any given week. The Osbaldestons are a Canadian family: every combination and permutation of family circumstance exists within the four generations represented in the course — single parents, same-sex couples, adoptions, live-ins, births, deaths, chronic illness, palliative care, etc.

To further emphasize the importance of continuity of care (and more accurately simulate the long-term relationship between pharmacist and patient), individual Osbaldeston family members 'return' several times during the course of the Seminar. For instance, in Lab #1, Philip Osbaldeston (son of Miles and Lucy) may present with Crohn's disease requiring surgical intervention followed by home TPN. Then, in Lab #5 Philip's father, Miles comes to the pharmacy, concerned about his own depression but he will also comment that Philip has experienced redness and inflammation at the catheter site. Finally, in Lab #8, Philip returns, now suffering from pneumonia. It is the responsibility of the student in Lab #8 to ensure follow up on any issues discussed in previous labs which continue to be relevant.

In order to facilitate this follow up process, all interactions during the seminar must be documented, using a standard format such as Subjective Objective Assessment Plan (SOAP). Prior to the start of the seminar series, each group must decide upon a mechanism (such as a three ring binder, notebook computer etc.) for keeping documentation together during the 10-week seminar period.

During each seminar, there are two hours of SP role-playing. Each week four students are selected. Two of the four students are chosen in advance to be either the primary facilitator or the 'Secondary.' The other two students are randomly selected on the day. In order to ensure maximal exposure to the SP, each encounter is scheduled for 30 minutes (there are four separate interactions).

Two cases are presented, each repeated one time. SP Encounter A "sets the stage." Often it involves presentation of a new prescription, a question about OTC products or general health matters, or it may be a referral from a physician to conduct a comprehensive history. During Encounter A, information gathering and provision of information are emphasized, but therapeutic problems may also emerge. Encounter B represents a time several days or weeks after the initial encounter. During Encounter B, an adverse side effect may emerge, treatment resistance may develop, or compliance problems may become apparent. The Primary Facilitator and one of the randomly selected students remain in the seminar room; the other two students (the Secondary and the other randomly selected student)

leave the room, so as not to observe the role play.

The primary facilitator conducts the first SP encounter A. This interview should last 15 minutes. A brief introduction or 'prompt' may be provided, which gives information about the pharmacy setting (*e.g.*, hospital, clinic, ambulatory care, community, emergency room, etc.). As well, s/he is informed of any relevant background information (*e.g.*, laboratory values, medication profiles, etc.). During the 15 minutes, the student facilitator will interview the patient, address the task, determine and resolve actual and potential drug related problems. Students are encouraged to use any tertiary reference they wish during this interview, but they must also understand that the clock will be running while they look things up. After the 15 minutes, this student will receive feedback (Appendix A) from the SP, and will document the care which was provided.

Next, the randomly selected student who was waiting outside the room is called in. This student did not observe the student-facilitator's interaction, and so will play out this scenario—SP encounter A—once again. During this period, other students in the seminar are observing differences in approach between the two students, seeing how different interviewing styles can yield different pieces of information. After this 15-minute interaction, the SP again provides feedback to this randomly selected student.

In the next half-hour, the second student who was waiting outside the room—the Secondary—is called in. This student has not seen either attempt at SP encounter A, but will have access to the documentation that the primary student facilitator produced after the initial encounter. This documentation should provide the foundation for the patient's return visit in SP encounter B (which is a completely new case, set a few days or weeks after the initial encounter, it builds on the situation presented in Case A). During this 15-minute encounter, the student will interview the patient, follow up on issues identified in the documentation from Case A, and address any "new" problems that may have occurred. After the encounter, this student also documents the care provided. (Remember this patient could return in a future lab, or a question may arise about this patient in a future lab.) Again, after the role-playing, the SP provides feedback to this student.

In the final half-hour of the role-playing, the remaining, randomly selected student will play out the B part of the case. This student will have been in the room and observed the previous three encounters. (S)he will have been privy to the feedback provided from each encounter. Consequently, this student should be able to incorporate suggestions into the interview and provide a "model" for dealing with this situation.

The cases used in the seminar are challenging. They draw upon real-life experiences of practicing pharmacists in ambulatory and hospital settings. The purpose of these cases is not to trip students up—students are told at the onset that it is not expected that any pharmacist (let alone a senior-level student) could completely and proficiently address all the issues in each case in the 15 minutes allotted. Instead, these cases are presented as learning opportunities, a rich source of clinical nuggets to be mined by both student and pharmacist alike.

Following the two hours of role playing, the pharmacist-TA engages the six students who did not interview the SP in a post-encounter probe. During this 30-minute period, the

TA can clarify therapeutics issues, pose content-specific questions or address ethical and professional practice concerns which the case raises. Following this, students complete evaluations of the seminar, the TA, the SP and the case and discuss the key points which they found during the seminar. At this point, the formal Seminar ends for all students except the Student-Facilitator.

In the 48-hour period following the seminar, the student facilitator must complete a take-home post-seminar case write up. Embedded within each case are complex drug information or patient management problems. The student must identify the key drug related problems which were not addressed during the seminar, research this problem, and write up a formal care plan based on the encounters and the research conducted.

THE MILESTONE (FINAL EXAM)

As befits a skills-based practice-oriented course, the final Milestone for the seminar provides students with an opportunity to demonstrate the skills they have acquired during the previous 10 weeks. Students perform the Milestone individually and are assessed on several different components: interviewing skills, pharmacotherapeutic problem solving skills and care plan/research skills.

The Final Milestone Exam for the course is also an SP encounter using cases very similar to those encountered during the course. Cases for the Milestone were also developed by pharmacists and vetted by the Faculty for content and appropriateness. The same assessment instruments used during the course were used in the exam to ensure students were comfortable with the process. Each student is given 15 minutes to interview an SP. Following this interview, the student is escorted to a separate room, where s/he may consult any references or pre-seminar assignments. The student is then given one hour to document the interaction, identify and place in priority-order all drug related problems which were identified. S/he must also develop and document a pharmacy care plan for the drug related problem identified by the student as the most important. The student writes all work on NCR (carbon pressed) paper. Following the one-hour write up period, the student submits the original copy of the documentation, drug related problems list and pharmacy care plan, keeping the carbon copy. Prior to leaving the room, the student is given the other part of the case—a follow-up paper case. The student then has 48 hours to research and write a response to this case and submit it. The follow-up case is typically far more complex and requires research of primary literature.

ASSESSMENT

The Professional Practice Laboratory and Seminar courses at the Faculty of Pharmacy use an Honors/Pass/Fail assessment system. A global visual analogue rating system with practice-specific domains and anchors is used in all four years of the program (Appendix E.). This assessment instrument provides both summative and formative feedback. Each time a student is assessed (four times in total during the course of the seminar series). This form becomes part of the student's file. In addition, case write-ups, pre-seminar assignments and other work also become part of the student's file. In order to "Pass" the course, students must score consistently in the "Meets Expectations" region of the overall assessment during the seminar. Failure to do so

means a student must complete a remedial assignment prior to the next lab (generally another role-playing session, this time with a clinical faculty member, so that feedback can be given). As well, they must pass the Final Milestone Exam (which consists of three distinct parts): the SP interview, the identification of DRPs/documentation and the post-case write-up.

Assessment of the student's overall performance is based on the summation of all the material in the file. The final grade is made in consultation with the pharmacist-TAs who supervised the student and the course-coordinator. During the ten-week seminar course, the student will have been assessed in a variety of formats and at different times. Evidence of progress and skills improvement, as well as attainment of a final level of baseline competency for supervised direct patient care responsibilities must be clearly demonstrated before a student will receive an overall "Pass" in the course. Students must pass the course in order to proceed to clerkship rotations which follow. Students who do not pass the course are given an opportunity to complete a supplemental exam several months later, during which time they can gain additional practice on their own time and at their own expense.

DISCUSSION

The pharmacy practice seminar course ran for the first time during the fall semester of the 1997-98 academic year. A student evaluation summary is presented in Appendix F. One-hundred-thirty students took the course—106 students received a PASS and 24 received Honors. Students initially expressed great concern regarding the unusual format and structure of the course. A significant degree of "performance anxiety" existed throughout the class. When questioned, many students reported the source of anxiety was not academic, so much as peer-pressure. The concept of "acting" like a pharmacist in front of nine other classmates was provoking fear in some students. Despite three years of peer-based role playing, students still felt unprepared for dealing with "strangers"—SPs. For students, the advantage of peer-based role-playing was the ability of the student, who was role-playing the patient, to soften or alter the role in order to encourage or lead a nervous classmate. With SPs, this luxury was now removed, and while this led to a more authentic interaction and potentially a better learning experience, the affective costs for the student included heightened anxiety and fear of failure. There were further pressures on the fourth interviewer since it was initially assumed that (s)he, having had the benefit of watching the three preceding interactions, would pull it all together and do an exemplary interview. But new communication techniques are not always easily integrated immediately and the fourth interviews were rarely the best—or model interviews.

In order to address these concerns, some pharmacist-TAs began modeling role-playing in the group, to allay students' concerns. When students realized that practicing, competent pharmacists were unable to expeditiously resolve all the problems in the case, they became somewhat less critical of themselves and more aware of the learning possibilities. The pharmacist-TAs elicited feedback from students after they had performed, further illustrating a central theme of the course: everyone has something to learn from these SP encounters. In addition, students who received a "Needs Improvement" on a role-play were given

the opportunity to receive individual tutoring and perform another role-play in order to "clear" their record. This too helped to reduce anxiety associated with the course.

Another significant issue that students addressed was related to workload. The preparation time for the Seminar was inordinate, particularly for the Student Facilitator, who needed to complete and submit the pre-seminar assignment, role play and document, and do the post-case write up. While this Student-Facilitator role only occurred once for each student during the 10-week course, it consumed a great deal of time and energy. Based on students' feedback, the workload will be more evenly distributed among more students in the future, to ensure a more reasonable balance.

Once initial anxiety regarding the public nature of the performances was addressed, and modifications to address workload issues were initiated, student feedback regarding the course was highly positive. As a bridge between the didactic, faculty-based program and the Structured Practical Experience Program (SPEP), students felt this format had prepared them well for dealing with real patients in a variety of real practice settings. The integrated nature of the course ensured students reviewed core material from a variety of courses and made connections between the pharmaceutical sciences and the practice courses.

Perhaps the most well received component of the course involved the use of the Osbaldeston family. Students responded very favorably to the continuity of care and responsibility implied by providing pharmaceutical care to one family. Though somewhat contrived, the use of "a" and "b" parts to each case, the patient's return to the pharmacy several weeks later and family members asking questions on behalf of other family members struck a chord with many students. It allowed them to simulate the natural progression of health, wellness and life.

This project was exciting and very demanding from the SP point of view. These pharmacy cases were very complicated to learn and perform. For instance, SPs had to understand the daily regimen of a diabetic or someone getting used to a colostomy or someone in the end-stages of terminal illness. It is a challenge, advancing from one phase to another in their character's life within the two hour seminar period. The continuity created by staying with the group for a whole session and then returning to that same group as the same character later on in the semester as well as later on in the character's life was also a unique and positive experience for the SPs. We also made certain that SPs would not see the same group when simulating a different character. From the Faculty's point of view, this course provided an opportunity to view students' performance directly, prior to the clerkship rotations.

The strength of the course clearly lies in the efforts of the students, the pharmacist-TAs and the SPs. The Faculty of Pharmacy at the University of Toronto is very fortunate in having close ties to the Standardized Patient Program at the Department of Family and Community Medicine in the Faculty of Medicine. The process of developing, piloting and running SP cases for pharmacy students was facilitated by these close ties; without them, the start-up costs for training and initiating an SP program de novo would be exorbitant, and likely beyond the reach of even large Faculties. Considering twenty two-part cases were developed for the ten-week duration of the course, each involving eight actors, the support of a structured SP program cannot be

over-emphasized. In total, costs for running this program for 130 students was approximately \$25,000 (US \$16,000): \$20,000 (US \$14,000) for the SPs (train and teaching—so low because the SPs were so experienced) and \$5,000 (US \$3,900) for pharmacists who assisted in the course (case writers, TA-facilitators) etc.

CONCLUSIONS

As this was the first offering of this course the long-term impact is difficult to assess. Anecdotal feedback from students on clerkship rotations suggest the opportunity to “practice” on SPs prior to encountering real patients was beneficial and assisted in the provision of pharmaceutical care. In future years, a post-course survey will be distributed in order to measure the magnitude of this effect. Overall, student feedback for this sort of integrative seminar course was highly positive (see Appendix F). Despite some initial anxiety and apprehension, students quickly perceived benefit to the structure and format. As a transition from a didactic program to an experiential practicum, the use of standardized patients provides students with an opportunity to learn new skills and practice pharmaceutical care in a controlled, low-stakes setting. As well, it provides the opportunity to see students in action—useful information to Faculty who can back and make adjustments to their teaching profiles based on what they have seen.

A solid partnership between the Faculty of Pharmacy and the Department of Family and Community Medicine ensured access to high quality, professional standardized patients who were able to bring a degree of authenticity to their roles which is truly remarkable. On many occasions, the portrayal of patients was so realistic that students and pharmacist-TAs were moved to tears. It is doubtful that such high quality SPs could have been recruited and trained without the established infrastructure of the Faculty of Medicine’s program. Drawing upon 15 years of experience with SPs in medicine, it was possible to modify training to meet the needs of pharmacy students and faculty.

We strongly believe the approach described is beneficial for student learning and performance in clerkship rotations. We would urge schools with access to an SP program to develop pre-clerkship courses or modules which incorporate all or many elements outlined in this paper. Those without access to an SP program must seriously consider the resources required to establish a foundation for recruiting, training and monitoring to ensure high quality of the program. The complexity of establishing an SP program de novo is daunting and might discourage most pharmacy schools from attempting this approach without access to a high quality established program and resources. However, learning with SPs is always valuable and we would encourage starting to build a pool of SPs to simulate (initially) less intricate roles. We will reiterate that the success of the course is a direct function of the strength of the SPs.

There was also an innovative approach to SP feedback. SPs were asked to give feedback on the communication and interpersonal skills of the student after each encounter in the traditional format, that is to tell the interviewer how it felt during the interview as the patient or from the patient’s perspective. As well, they were encouraged to share any insights they might have personally that were related to the day’s topic. Having an opportunity to explore sensitive, difficult areas with SPs in a controlled setting helps the

students come to understand their own attitudes, strengths and weaknesses. Such learning experiences allow students to reflect upon their future practice as direct care providers. It allows students the opportunity to practice important pharmacy and life skills in a safe, supportive environment. Skills such as speaking with a patient who is depressed or manic, or helping a patient deal with the loss of loved one. It also exposes the students to the full range of human conditions such as seeing the face of chronic pain. Such encounters are part of real life and are part of pharmacy practice. For students to have the opportunity to practice first, before it happens for real, is truly a unique and beneficial experience.

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APPENDIX A. STANDARDIZED PATIENTS

Standardized Patients (SPs) are trained to take on the symptoms of an illness and/or the problems of another, allowing themselves to become teaching tools and sometimes sounding boards for medical trainees. They are used now for both formative and summative evaluation of medical trainees at all levels including licensure. Routinely these people portray symptoms so well, in situations so realistic, that students forget it’s a simulation. Most SPs will tell you they prefer working in the classroom—teaching and tutoring rather than evaluating. Particularly in the teaching context, the SP is often called upon to remember and feed back what went well in the interview (in terms of communication), what the student did effectively, what needs some attention and what the student might adjust in order to improve their performance.

A SP must be intelligent, imaginative, articulate, healthy in mind and body, comfortable in groups of people, flexible, available, reliable, understanding and financially independent (since they are paid by the hour and the work is only occasional). Here at the University of Toronto we have a bank of over a hundred such people. Visual artists, retired teachers, taxi drivers, housewives, retired doctors and nurses, lawyers, actors, writers, singers—they come from all walks of life and varying cultural backgrounds, ranging in age from thirteen to eighty-five. Recruiting such a group took time in the beginning. We contacted local theatre groups and community organizations, friends, family members, other faculties, local schools with adult learning programs. Once a core group

is formed people come by word of mouth—the best method because people come with some “pre-screening.” For the last four years we’ve had a waiting list of people who are eager to join the program. We do put applicants through a rigorous interview process to avoid problems later since not everyone who applies is suitable.

SPs are trained through the Faculty of Medicine and typically spend between 1-3 hours with a Trainer before each seminar. In this training session, the details of the patient’s character are developed (e.g., affect, motivation, concerns, agenda) and the key therapeutic and disease issues are explained. Video-taped role playing at this stage allows SPs the opportunity to compare and standardize their preparation to ensure a level of consistency between actors. A case writer is usually present to provide guidance as required. In addition, SPs are trained to provide feedback to students regarding their communication skills. During a session, possible teaching points regarding the unique communication challenges of the role are discussed to help prepare the SPs to provide as constructive feedback as possible to the student (about their performance immediately after their interaction) from the patient’s point of view. The SPs return for one more session, the “dry-run” when questions that emerge after the first session are answered and standardization of the affect of their character takes place. SPs were paid (Cdn.) \$12/hour to train and \$18/hour for simulation.

SPs were asked to give feedback on the communication skills of the student after each encounter in the traditional format, that is, to tell the interviewer how it felt during the interview as the patient. During each training session there would be some discussion about specific communication techniques that could be employed to manage the presenting situation (i.e., talking with a depressed person, managing an angry patient etc.). Our training is ongoing since delivering feedback is a skill which develops over time. While some are more gifted than others at the art of giving feedback few feel totally comfortable doing it. We have large group workshops at the start of each academic year to brush up those skills as well as smaller group training appropriate to individual roles. SPs are also familiar with various checklists used to assess communication and have worked with the one developed by Cleo Boyd (Appendix E) in other areas of medical training as well. However, in keeping with our objective of bringing book-learning to life, a more unique aspect of the feedback sessions in this course was that SPs were actively encouraged to talk about their own opinions and experiences related to the day’s topic. They were invited to be creative, to bring passages to read for instance—anything that would resonate with or enlighten the students.

APPENDIX B. SEMINAR STRUCTURE

There are two sections of the seminar, Tuesdays from 9-12 and Tuesdays from 2—5. For each section the following structure will apply:

Tuesday 9-12	Seminar activity	Tuesday 2-5
9:00-9:30	Student-Facilitated Discussion	2:00-2:30
9:30-10:00	Standardized Patient Encounter A	2:30-3:00
10:00-10:30	Standardized Patient Encounter A (repeat)	3:00-3:30
10:30-11:00	Standardized Patient Encounter B	3:30-4:00
11:00-11:30	Standardized Patient Encounter B (repeat)	4:00-4:30
11:30-11:45	Post-Encounter Probe	4:30-4:45
11:45-12:00	Summary and Wrap-up	4:45-5:00

APPENDIX C. CASE EXAMPLE—MILES OSBALDESTON

Lab 5—Part a

Student Instructions

You are a pharmacist working in a community dispensary. You will be receiving a new prescription from a new patient for an antidepressant. You will have 15 minutes for this interaction. You are to identify this patient’s actual or potential drug related problems. Following this interaction, you will document your interventions, monitoring and follow up plans.

SP Instructions

You have just been to the doctor nearby and are bringing the prescription for Elavil in to the pharmacy to fill but first you stopped in at the liquor store and picked up a bottle of scotch.

You’ve been living alone for the past five years since your wife died. Two months ago you were laid off from your job, leaving you without a pension and no benefits yet (you are only 63). This was the catalyst that plunged you into a deep depression you cannot shake. You are fed up with yourself—only weaklings indulge in depression. You have not talked about your state of mind with any of your 3 children—in fact your job loss is so excruciating you’ve been avoiding talking to anybody.

You have been drinking to ease the mental anguish. You have dabbled with the idea of suicide. You do want it all to end but you don’t really think you’d act on it. You lie around all day—14-16 hours in bed. You’ve lost 151bs because you’re not eating, even when you’re hungry. You do drink lots of coffee (6-8 cups). You have no energy nor any motivation to do anything. Nothing gives you pleasure any more.

You did take yourself to the doctor and (s)he diagnosed you as clinically depressed. You are so worried about money that you asked him to prescribe the cheapest drug and a large quantity because you know bulk buys are better buys.

Other Medications

You have a bit of arthritis and you take coated aspirin 3 times a day which you’ve been taking for years and it seems to work

You’ve recently bought some Tinactin for your athlete’s foot Allergies

You have an “allergy” to penicillin which you remember caused nausea (but no rash or breathing problems) when you were given it for something when you were a kid

Past Medical History

Rheumatic Fever as a child otherwise unremarkable

Needed Responses

You are very despondent when you are told that it will take 4-6 weeks for the Elavil to kick in...you might as well be dead...there isn’t any point in going on.

Critical Issues

1. Identify patient currently experiencing S/Sx of depression
2. Identify patient has contemplated suicide
3. Identify patient at risk of non-compliance due to 4-6 week lag time
4. Provide reasonable options (e.g., change antidepressant to SSRI, dispense smaller quantity, other measures to control sleep (e.g., benzodiazepines, non-pharmacologicals), etc.
5. Provide follow-up plan (e.g., resolution of symptoms in 4 weeks, method of dealing with them in the mean time)

Lab 5—Part b (two weeks later in the patient’s life)

Student Instructions

You are a pharmacist working in a community dispensary. You are about to meet Mr. Miles Osbaldeston. He has visited your phar-

macy before and there is a note left by another pharmacist, concerning his antidepressant treatment. You are to follow up and continue to provide care to this patient. You will have 15 minutes for this interaction. After you will document the care which you provided.

SP Instructions—What's been happening over the past 2 weeks?

You've been taking your Elavil and although you are no longer suicidal you sure are low and flat. You are suffering side effects such as dry mouth, your nose is congested and most embarrassing to talk about, terrible constipation. In fact, you haven't had a bowel movement in 7 days. Your eyes are also dry but it seems to you that your vision is blurry which is worrisome because that means you'll have to go to the optometrist for new glasses you cannot afford.

The athlete's foot has cleared up—but you want Otrivin for your nasal congestion.

Your Affect

Sad, flat, slightly delayed response; worried about \$\$\$; embarrassed/shy about constipation

Critical Issues

1. Follow-up re: S/Sx of depression
2. Identify side effect pattern (constipation, dry mouth, "blurring")
3. Suggest non-pharmacologicals (*e.g.* sugar free candy, water, etc.)
4. Suggest pharmacologicals (MoiStir, Tears Naturale, etc.), but discourage use of Otrivin (drug-drug interaction possible and likely not necessary)
5. Education re: onset of activity for TCAs—provide support, encouragement etc.

Lab 7—Part a (8 weeks since first visit to pharmacy)

Student Introduction

You are a pharmacist working in a community pharmacy. You have just received a fax from Dr. Regehr, a family physician in the clinic next door. He will be sending over a patient by the name of Miles Osbaldeston to pick up a new prescription for Adalat XL 30 mg po qam. Also included on the fax are the following notes:

Name: Miles Osbaldeston

Laboratory: B/P: 130/90

Pulse: 76/min. regular

Funduscopy: mild arterial narrowing, sharp discs, no exudates or hemorrhages

Na: 140mmol/L (135-147)

K: 4.8mmol/L (3.5-5.0)

Hematcrit: 42% (45-52)

Provisional Diagnosis: Mild hypertension

New Rx: Adalat XL 30mg po qam

Meds: Elavil 50mg po tid

ECASA 32mg po qid

Case Summary: Miles Osbaldeston, a 60-year-old widower started on Elavil 50 mg. po bid 8 weeks ago. Since that time, he has experienced a marked improvement in his symptoms, and has begun to eat and sleep in a normal pattern. He has also become romantically interested in an old friend and this is giving him a new lease on life. On a regular checkup with his family physician, a diagnosis of essential hypertension was confirmed. Today, Mr. Osbaldeston is at the pharmacy to pick up his new prescription, as well as some Benadryl for an allergy.

SP Instructions—Medications

Over the counter

Benadryl when you have an allergic reaction like your ragweed allergy

Coated aspirin which you are now taking 4 times a day instead of 3 as you did before. This is for your arthritis.

Prescription

Elavil 50mg—it's a peachy/pink pill that you've been taking 3 times a day for the past 2 months

NB You are picking up a prescription for Adalat (nifedipine) for your hypertension—it's a calcium channel blocker for the ticker. Probably you should just try and relax instead of taking drugs to relieve the tension.

NB: You are eating a grapefruit every morning these days and you drink 6-8 cups of coffee

Critical Issues

1. Inappropriate use of nifedipine for first treatment of hypertension
2. Beta blocker not best first choice due to drug interaction with ASA—use loop diuretic (*e.g.* Furosemide 40mg po qam, with dietary potassium supplementation) or thiazide diuretic (*e.g.* HCTZ 50mg qam) [NOTE: thiazide diuretics are OK to use even though patient has sulfa allergy]
3. Potential drug-drug interaction with Elavil and Benadryl—suggest Allegra or Reactine
4. Deal with patient's concerns re: pharmacist's intervention

Lab 7—Part b (2 weeks later)

Student Instructions—Must have male student for this encounter

You are a pharmacist working in a community pharmacy. You are about to meet Miles Osbaldeston, a regular and loyal customer of your pharmacy. The following medication profile exists:

Name: Miles Osbaldeston

Age: 63 years old

Diagnosis: Mild Hypertension
Rheumatoid Arthritis

Allergies: Seasonal

Meds: Penicillin, Erythromycin (rash)

ECASA 325 mg po qid

Elavil 50 mg po tid

Lasix 40 mg po od

OTC: Allegra

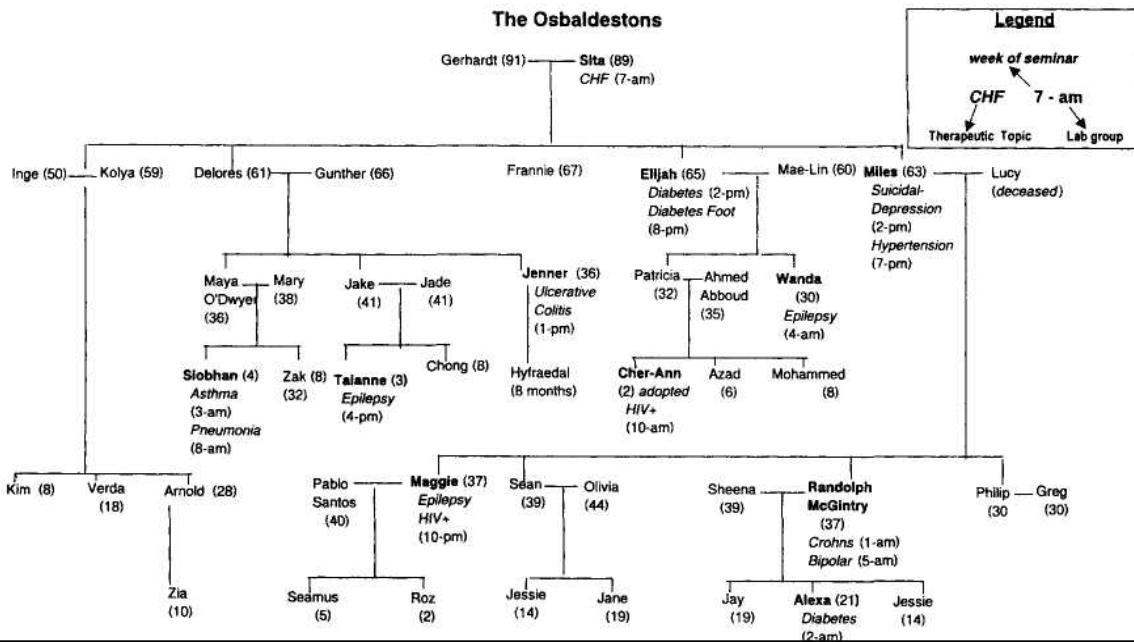
SP Instructions

You've come in today to pick up some Sudafed for your new cold and there is something else that's really bothering you (concerning your romance)—it's just that you couldn't bring yourself to ask your doctor since she's so young—and a woman..... You are wondering whether there is a product to buy that could relieve your difficulties in the bedroom....

Critical Issues

1. Recommend use of Tylenol/Salinex and non-pharmacologicals as opposed to Sudafed, which may interact with TCAs
2. Recommend taking Furosemide qam, no5 qhs, to prevent nighttime urination
3. Discuss issue of impotence—identify role of disease (*e.g.*, depression, hypertension, etc.) as opposed to drugs (*e.g.*, Furosemide not usually linked to impotence)
4. Address patient's questions with concern and tact—do not simply refer to MD, but encourage patient to speak with MD
5. Discuss some treatment alternatives for impotence, but state that MD's involvement is necessary

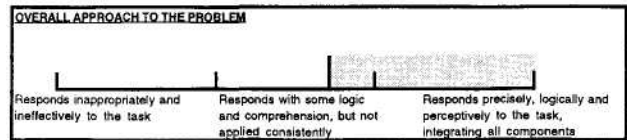
APPENDIX D. FAMILY TREE



APPENDIX E. COMMUNICATION GLOBAL ASSESSMENT FORM

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Professional Practice Laboratories Station: _____
 Student: _____ Date: _____



This visual analogue global performance assessment evaluates five different domains of clinical skills: verbal skills, non-verbal skills, response to patient's feelings and needs (empathy), degree of focus, logic and coherence in the interaction, and the overall approach to the problem. The visual scale accompanying each domain represents an honors/pass/fail grading system; the "fail" region is on the left side of the scale, the pass region in the middle and the honors region on the right side. Behavioral descriptors for each region for each domain are included to provide guidance to assessors. Students strive for the shaded region in order to ensure optimal performance in the course. A key points checklist is included to ensure important details and facts related to the case are covered; this provides a check in the system, ensuring that verbally gifted students do not succeed purely on their interviewing skills without having an underlying basis of pharmacotherapeutic knowledge. Students must score at least 3 out of 5 on the Key Points checklist in order to achieve a PASS or better on the "Overall Approach to the Problem" domain.

1) Verbal Expression

Communicates in a manner that interferes and/or prevents understanding by the patient | Exhibits sufficient control of expression to be understood by an active listener | Exhibits command of expression (fluency, grammar, vocabulary, tone, volume and modulation of voice, rate of speech and pronunciation)

2) Non-verbal Expression

Fails to engage, or frustrates and antagonizes the patient | Exhibits enough control of non-verbal expression to engage a patient willing to overlook deficiencies such as passivity or self-consciousness | Exhibits finesse and command of non-verbal expression (eye contact, gesture, posture, use of silence)

3) Response to patient's feelings and needs (empathy)

Does not respond to obvious patient cues | Responds to patient's cues but in a formulaic or ineffective manner | Responds perceptively, genuinely, and appropriately

Key Points Checklist

	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>

General Comments: _____
 RPH: _____

4) Degree of focus, logic and coherence in the interaction

No recognition of the problem and no plan or approach | Appropriate response to the context, but organizational approach is formulaic and minimally flexible | Superior judgement and organization, demonstrating both focus and flexibility with respect to the context

APPENDIX F. PHM 429F—STUDENT EVALUATION SUMMARY

Class size: 130
 Number of completed surveys: 120
 All questions use a 5-point scale: 1= strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree.

1. The learning objectives for this course were clearly stated.

1	2	3	4	5
0	3	0	67	50

2. The learning objectives for this course are important for pharmacy practice.	1	2	3	4	5
	0	0	0	0	90
3. The course was well organized	1	2	3	4	5
	0	0	0	18	102
4. Compared to other courses with similar weighting, the workload for this course was reasonable.	1	2	3	4	5
	22	76	14	8	0
5. Compared to other courses, the relevance of this workload for pharmacy practice was apparent.	1	2	3	4	5
	1	0	0	21	98
6. The assignments for this course [e.g. post-case write ups, seminar reviews, literature reviews] were relevant and helpful in achieving course objectives.	1	2	3	4	5
	3	28	7	63	19
7. The cases that were used were relevant, realistic and an authentic simulation of pharmacy practice.	1	2	3	4	5
	7	11	12	48	42
8. The feedback provided by T.A.s (pharmacist-facilitators) was helpful and constructive.	1	2	3	4	5
	9	3	3	46	62
9. The feedback provided by Simulated Patients was helpful and constructive.	1	2	3	4	5
	0	5	0	26	89
10. The feedback given on written assignments was helpful and constructive.	1	2	3	4	5
	2	6	11	56	45
11. The examination in the course was fair and corresponded with the course learning objectives.	1	2	3	4	5
	0	6	18	49	47
12. The Course Co-ordinate was approachable and helpful	1	2	3	4	5
	0	2	16	29	73
13. This course will prepare me well for pharmacy practice in the future.	1	2	3	4	5
	2	2	8	36	72
14. Overall, this course was a worthwhile experience.	1	2	3	4	5
	0	0	3	58	59
