



Becoming an Effective Preceptor

**An introductory module designed to help introduce pharmacists to the world of
teaching students in their clinical settings**

**June 1998
renewed 2001, 2004, 2007, 2010**

Published jointly by: **The University of Houston College of Pharmacy
Texas Southern University College of Pharmacy and Health
Sciences
Texas Tech Health Science Center School of Pharmacy
The University of Texas at Austin College of Pharmacy**

Author: **John H. Kleffner, Educational Specialist (Retired)
Helotes, Texas**



Table of Contents

Message from dean and Foreword	iii
How to receive continuing education credit	iv
Introduction to preceptorship teaching	1
Philosophy of education	2
Characteristics of effective clinical teachers (preceptors)	4
Roles of clinical teachers	7
The clinical teaching environment	12
Structured learning experiences	16
Issues in clinical teaching	21
Motivation	23
Preparing for clinical teaching	26
Orienting students to the rotation	29
Bibliography	38
Introduction to Irby's article	39



Message from the Dean

One of the highlights of our academic year is our annual Preceptor (Orientation and Training) Conference. This conference brings together exceptional practitioners committed to advancing the profession through the education and training of future practitioners. The Preceptor Conference is important to our College and has always been an enjoyable time of networking with colleagues and friends from the different internship regions.

However, the growth of our internship program due to the implementation of the entry-level Pharm.D. degree presents the need for additional preceptor training programs to meet the educational needs of preceptors throughout the state. As we offer this first in a series of three home-study modules, I hope that you will find the information applicable to your role as a practitioner-faculty member, and the format one of convenience for you.

Thank you for your continued commitment to this extremely important aspect of pharmacy student education.

Sincerely,

M. Lynn Crismon, Pharm.D.
Dean, Doluisio Chair, and Behrens Centennial Professor

Foreword

Thank you!! for being an important participant in the culminating portion of a pharmacy student's education: the internship.

If you have previously supervised one or more student pharmacist-interns, you are aware of the challenges and rewards that they can bring to your professional life. If you have not yet served as a practitioner-faculty member for University of Texas College of Pharmacy students, an exciting opportunity awaits you, for you are critical in the shaping of their practice habits and future careers.

Becoming an Effective Preceptor was developed by John Kleffner, Ed.D. in cooperation with the four Texas colleges/school of pharmacy. Dr. Kleffner, now retired, is a trusted, talented colleague who has provided pharmacist preceptor education and training in years past. His former position with The University of Texas Health Science Center San Antonio allowed him to work with all types of medical professionals who precept students in clinically based practice rotations, so the variety of experiences he brings to this exercise are extremely helpful in understanding our role as educators, mentors and role models.

Although this is an introductory module, its application is for all practitioner-faculty. Even if you have precepted students for a number of years, it never hurts to re-visit this information to be reminded of the important principles involved in teaching and mentoring future pharmacists. The exercises included may also be helpful in structuring your activities to make the most of your time with the student.

It is our hope that this module is helpful in establishing the foundation for many fulfilling years of participation in The University of Texas College of Pharmacy internship program.

— Jennifer Ridings-Myhra, Assistant Dean

Stay informed about our experiential program, including educational opportunities for preceptors, by visiting our web page <http://www.utexas.edu/pharmacy/general/experiential/practitioner/index.html>

Receiving Continuing Education Credit for *Becoming an Effective Preceptor*

This home-study module meets the Texas State Board of Pharmacy requirement for preceptor education and training. *It may be taken only once for credit*; therefore, it may not be repeated for the preceptor training or any other continuing education requirement.



The University of Texas College of Pharmacy is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmaceutical education. *Becoming an Effective Preceptor* is accredited for 3.0 contact hours (0.3 CEUs) of continuing education credit. Continuing education credit will be issued to participants who successfully complete the program. Successful completion of the program includes reading of the module and submission of all exercises to the College. A continuing education statement noting continuing education credit issued will be mailed to participants four to six weeks following receipt of the exercises.

The Universal Program Number is: 067-000-04-080-H04.

Initial Release Date: 1998 Renewed: 2001, 9/1/04, 9/1/07, 9/1/10

Expiration Date: 9/1/13

Please note the following criteria for submitting the exercise booklet for continuing education credit:

1. This course is free of charge to pharmacists who are either currently affiliated with the UT College of Pharmacy through a practitioner-faculty appointment, or are in the process of completing the paperwork for such an appointment. Those in process must be confirmed via the regional director for your geographic area. For more information, visit:
<http://www.utexas.edu/pharmacy/general/experiential/info/personnel.html>
2. All other pharmacists wishing to receive CE for this course must submit a check or money order to The University of Texas College of Pharmacy for \$25.
3. This course may not be repeated for credit.
4. To receive a continuing education statement, please forward the exercise booklet, course evaluation, and fee if appropriate, to:

Anda Wynn, Administrative Associate
College of Pharmacy
The University of Texas at Austin
1 University Station, A1900
Austin, TX 78712-0120

Allow four weeks for processing. It is up to each individual pharmacist to keep track of his or her CE.

Special thanks to Pharmacy Continuing Education for their assistance in the accreditation of this material.

Goal: The goal of Module I *Becoming an Effective Preceptor* is to provide pharmacists with introductory skills and tools so that they can become or continue to be effective mentors and clinical teachers.

Objectives: Upon successful completion of this module, the participant should be able to:

1. List five characteristics of an effective preceptor.
2. List six characteristics of an effective learning environment.
3. Describe several types of structure learning experiences and the activities that take place during those experiences.
4. Discuss four major factors that substantially impact learner motivation.
5. Articulate at least three activities that should take place in the teaching/learning environment to effectively orient the student to the rotation.

INTRODUCTION TO PRECEPTORSHIP TEACHING

Welcome to the wonderful world of precepting. Introducing students to your profession can be one of the most satisfying experiences of your professional life. Students have been waiting for several years to put into practice what they have learned in the classroom and it is your privilege to guide them through this transition.

You were chosen to be a preceptor because of your knowledge, skills, and values as a professional pharmacist. Now you are asked to develop another area of expertise, namely, become a clinical teacher or preceptor. Preceptor and clinical teacher are used synonymously in this module.

This program is designed to help you become an effective and happy preceptor. Of course, as with any other job, there are certain expectations. These expectations include rules and regulations from the state, expectations from the College or School of Pharmacy regarding learning outcomes and specific experiences, and requirements of professional accrediting associations. All requirements will be given to you in writing or on the World Wide Web (WWW) so you do not have to remember all the details. This information will be provided by the internship program from each school.

The term “clinical teaching” refers to all teaching which is conducted in a setting where there is a patient, student and teacher.

Directions for completing exercises: There is a separate exercise booklet which has the same forms as in this manual. **COMPLETE ALL EXERCISES IN THE EXERCISE BOOKLET.** You will need to submit the completed exercise booklet to the college or school of pharmacy from which you obtained it to receive continuing education credit for this course. **GOOD PENMANSHIP OR TYPED ANSWERS ARE GREATLY APPRECIATED.**

PHILOSOPHY OF EDUCATION

There are two major factors which determine the behavior of human beings: what they know and what values they possess. Preceptors' educational philosophy and their teaching skills are equally important in determining their success as teachers. A philosophy of education answers questions like the following:

1. How do students learn?
2. How do student and teacher attitudes/values affect learning?
3. What is the role of evaluation in the teaching learning process?
4. Are some teaching strategies more effective than others?

How preceptors answer these questions and others like them will determine to a large extent how they will teach. For example, preceptors who believe that students learn best from being told what to learn will not ask many questions but will provide answers whenever a student asks a question. Preceptors who believe that using grades as a motivating factor will often threaten students with low grades if they do not perform up to expectations.

There are no right or wrong answers to the following exercise. However, teachers will behave differently depending on their value system. You are asked to think about your philosophy of education and respond to each of the following items. Preceptors are encouraged to reflect on each item and think about what would be the consequences if this particular philosophy was adopted for each rotation. If there are two or more preceptors at the same location they should meet together after completing this exercise and try to reach a consensus regarding the philosophy they will follow at their training site.

Exercise 1 - My Philosophy of Education
--

(Write your answers in the Exercise Booklet)
--

Please respond to each item indicating whether you agree or disagree by circling the appropriate letter(s) using the following code.

SA = Strongly Agree A = Agree NO = No Opinion D = Disagree
 SD = Strongly Disagree

1. SA A NO D SD Most students who do NOT perform well lack the motivation to work hard.
2. SA A NO D SD My role as a preceptor is to provide students with the knowledge they need to be competent practitioners.

3. SA A NO D SD Every preceptor teaches ethics, either directly or by example.
4. SA A NO D SD What students learn during a rotation should be the sole responsibility of the preceptor.
5. SA A NO D SD Only students, who have demonstrated competency during their rotations, should receive positive evaluations from their preceptors.
6. SA A NO D SD The internship evaluation system encourages students to become good problem solvers.
7. SA A NO D SD Preceptor values are an important factor in the manner in which they teach and evaluate students.
8. SA A NO D SD Preceptors should make a conscious effort to reinforce the basic sciences.
9. SA A NO D SD Learning is more than an accumulation of facts.
10. SA A NO D SD All faculty, including preceptors, should help students integrate information from a variety of sources.
11. SA A NO D SD Preceptors should have a clear understanding of what students need to learn during their rotations.
12. SA A NO D SD Telling students what they need to know is the most effective mode of helping them learn.
13. SA A NO D SD Problem solving is domain specific. A good problem solver needs to have specific information related to the problem to be solved.
14. SA A NO D SD Instructional strategies which require students to be active and accept responsibility for their own learning result in improved performance as health care professionals.
15. SA A NO D SD Preceptors have a unique opportunity to help students develop their problem solving and critical thinking skills.

CHARACTERISTICS OF EFFECTIVE CLINICAL TEACHERS

Exercise 2 - Characteristics of Effective Clinical Teachers

(Write your answers in the Exercise Booklet)

List at least five (5) characteristics of an effective preceptor.

- 1.
- 2.
- 3.
- 4.
- 5.

Self-assessment exercise

There has been considerable research conducted to identify the characteristics of effective clinical teachers. The following is a summary of the research concerning effective clinical teachers. Please match your answers with the following research findings.

1. **Organization / Clarity**
 - explains clearly
 - presents material in an organized manner
 - summarizes
 - communicates what is expected to be learned

2. **Group Instructional Skill**
 - encourages active participation
 - establishes rapport
 - demonstrates respect
 - shows personal interest in students
 - emphasizes problem solving
 - listens attentively
 - answers questions carefully and precisely
 - questions students in a non-threatening manner

3. **Enthusiasm / Stimulation**
 - enthusiastic
 - dynamic and energetic
 - enjoys teaching

- interesting style of presentation
- stimulates interest in the subject

4. Knowledge
 - discusses current developments
 - reveals broad reading
 - discusses divergent points of view
 - relates topics to other disciplines
 - directs students to useful literature

5. Clinical Supervision
 - demonstrates procedures
 - provides practice opportunities
 - observes student performance frequently
 - identifies strengths and limitations objectively
 - provides feedback and positive reinforcement
 - corrects students without belittling them

6. Clinical Competence
 - objectively defines and synthesizes patient problems
 - demonstrates skill at data gathering
 - uses consultations appropriately
 - interprets laboratory data
 - manages clinical emergencies
 - works effectively with health care team members
 - maintains rapport with patients

7. Modeling Professional Characteristics
 - self-critical
 - takes responsibility
 - recognizes own limitations
 - does not appear to be arrogant
 - shows respect for others
 - seems to have self-confidence
 - demonstrates sensitivity to others

Irby, David M. "Clinical Teacher Effectiveness in Medicine," Journal of Medication Education 53: (October 1978) pp. 18-24.

Effective teachers develop a positive relationship with their students. Dr. Carl Rogers, in his article "Characteristics of a Helping Relationship" suggests that without this positive relationship it is very difficult for one person to help the other. Teachers are helpers. Their purpose for being teachers is to make learning more effective and efficient.

Developing a positive relationship depends on developing a trust relationship between two people. Trust is developed by each person being consistent in sharing feelings and expectations. If a teacher is angry at a student or disappointed by what a student does, it is very difficult to behave as if everything is okay. This is NOT to suggest that preceptors should shout at students every time they are disappointed in their behavior but rather recognize their feelings at the moment so whatever communication does take place is authentic and not phony. A positive trust relationship can be developed if both parties are true to their feelings and open with each other. (Rogers 1958)

Exercise 3 - My Greatest Strengths as a Teacher

(Write your answers in the Exercise Booklet)

After reading the above description of effective clinical teachers, what do you think are your two greatest strengths as a teacher?

- 1.
- 2.

List one area you think needs improvement in your clinical teaching? (If you have not taught students before, think about the teaching you have done with your staff.)

- 1.

Summary

Research has demonstrated that students rate clinical teachers positively if they exhibit certain characteristics. Additional research shows that students learn more from teachers who exhibit these characteristics. This does NOT mean that all teachers have to behave exactly alike. It does mean that good clinical teachers exhibit similar characteristics in similar situations.

The above check list can be used to reflect on clinical teaching behaviors. Dr. Donald Schön, in his book “Educating the Reflective Practitioner,” Dr. Gary Ferenchick *et al* in their article, “Strategies for Efficient and Effective Teaching in the Ambulatory Care Setting,” and Drs. Smith and Irby in their article, “The Roles of Experience and Reflection in Ambulatory Care Education” recommend that the way to become an expert is by reflecting on past performance. “... the expert teacher develops and continually adapts them (teaching scripts) based on his or her

experiences with teaching, feedback on teaching effectiveness, readings, discussions with colleagues, and other activities. (Ferenchick 1997) Since most preceptors do not receive feedback concerning their teaching on a regular basis, it is incumbent upon them to provide their own self assessment of how well they are teaching.

ROLES OF CLINICAL TEACHERS

Exercise 4 - Roles of Clinical Teachers

(Write your answers in the Exercise Booklet)

List at least three (3) roles which preceptors are expected to play when they are teaching students during a rotation.

- 1.
- 2.
- 3.

Preceptors are expected to play several different roles. Knowing which role to play depends upon an assessment of the situation; what the students need to learn; how conducive the learning environment is to helping students learn; and what constraints are present. At one time or the other, each preceptor will have occasion to play each role described below.

One-on-one Supervisor

As supervisors, effective clinical teachers give learners responsibilities for patient care, provide opportunities to do procedures, and review patients with learners. Effective supervisors provide direction and constructive feedback. Greater delegation of responsibility for patient care is significantly associated with higher overall ratings of teachers by learners.

Preceptors are responsible for the actions of their students. This means that it requires a fine balance between not allowing students to make any independent decisions and allowing them to practice without any oversight. Either extreme does not lead to a satisfactory result. As students demonstrate their capabilities it is recommended that preceptors give students more responsibility while still monitoring their actions in a non-threatening way. A second recommendation is to establish a specific time to teach students. This instruction should be based on preceptors' observations of the students' performance or the list of learning outcomes provided by the sponsoring school. Most rotations will not provide all the learning opportunities needed by students in order to achieve all the learning outcomes expected by the internship program. Therefore, preceptors will need to provide supplementary learning activities in addition to the normal experiences students will have during the rotation.

Role Model

Role modeling can be one of the most effective teaching strategies available to a preceptor. Preceptors are role models by definition. Students will observe preceptors' behavior and made decisions about how to interact with patients, how to treat fellow workers, how to deal with ethical dilemmas and every aspect of being a professional pharmacist. Excellent clinical teachers serve as positive pharmacist role models. Such pharmacists are characterized as being knowledgeable and clinically competent, having good rapport with patients, and being perceived by students as good role models.

Role-modeling needs to intentional. This means that preceptors should discuss their behavior and their decisions with students to make sure they understand the rationale for specific behaviors. On many occasions novices (students) are not able to observe what experts see almost automatically. Therefore, it is important that preceptors point out the significance of their behavior to students. This may seem unnatural at first but with practice it will become second nature.

For example: if preceptors ask specific follow-up questions when a patient requests a recommendation for an over-the-counter medication, students may not immediately see the significance of these questions. Therefore, if the rationale for asking these follow-up questions is not made clear, the learning opportunity for students may be missed.

Another example may be demonstrating specific behavior in serving different ethnic groups, if they are part of the institution's clientele. Some diseases are more prevalent in some groups than others. Some ethnic groups value "folk" medicine. Students may have a tendency to down play the values held by certain patients. Preceptors' behavior can help students learn the importance of recognizing these patient values. Again, it may be necessary to point out how important patient values are in providing excellent patient care.

Finally, role modeling requires that students see preceptors practicing as professionals. Students respect teachers who can perform what they expect students to perform. Demonstrations of how to talk with physicians, how to deal with disgruntled patients, how to provide patient education and many other responsibilities are all important for students to observe. Providing a professional role model in these clinical situations is very helpful to students. Again, good clinical teaching may require a follow-up discussion of the interaction with the students in order to make sure they are aware of salient points which they should learn from this experience.

(For additional information read: Ettinger ER, ROLE MODELING FOR CLINICAL EDUCATORS, *Journal of Optometric Education*, Vol. 16. No. 2 Winter 1991, 60-62.)

Facilitator

There is much discussion in the literature today about helping students become active learners. As facilitators, preceptors can empower students to ask questions, search for answers, and become independent learners. Rather than “telling” students what they need to know, preceptors can “guide” students through thoughtful questioning and encouraging feedback. Research shows that facilitators believe that learning requires active engagement between the learner and the content rather than having students passively listening to an expert.

Friend and Counselor

Some students have difficulty adjusting to new situations or have personal problems and need a friend. Preceptors may be in the best possible position to fill this role. They are not expected to solve the students’ problems but can be a listener and student advocate, if that is what is needed.

Excellent clinical teachers demonstrate support for learners, are easy and fun to work with, friendly, helpful, and caring. These teachers demonstrate a positive attitude and enthusiasm for teaching and creating an educational environment that facilitates learning.

Evaluator

Teachers, especially those in health care education, have two equally important roles assigned to them by citizens of the state. First, teachers should do everything in their power to help students achieve the learning outcomes which are outlined by the program directors, accrediting agencies and professional organizations. Second, teachers should make certain that only those students who have demonstrated competency should graduate from the program and be allowed to enter practice. Almost all patients have no way of determining the competence of a health care practitioner. (Most licensing examinations are NOT able to determine who is going to be a good health care provider and who is not. Only faculty who work with students over time can make this determination.)

An entire module on evaluation of student achievement is being planned for this series of preceptor training, and should be available sometime in 1999. Watch for additional information in the mail or via the Web.
--

Exercise 5 - Reflective Exercise

(Write your answers in the Exercise Booklet)

Think of preceptors who helped you move from the novice state towards becoming a professional pharmacist. Choose one or more persons who made your clinical learning experiences effective and enjoyable. List the first name of each preceptor and the behaviors which they exhibited to help you become an expert pharmacist.

First name Behaviors

First name Behaviors

First name Behaviors

Exercise 6 - Self Assessment of One's Ability to Show Concern for Students' Feelings, Interests, and Problems.

(Write your answers in the Exercise Booklet)

Directions: Complete the following exercise by choosing one of three responses and write the letter in the blank next to the number. If you would respond differently than any of the three responses provided, write your response next to "d" for each item.

- ____ 1. If a student told me that his work was suffering because of a fight he had had with his wife, I would say . . .
- "Too bad. You can't let outside things have such an effect on your school work."
 - "Let's talk about it and see if we can get your mind back on your work."
 - "You're old enough to handle your own love life."
 - _____
- ____ 2. When I know a member of a student's family is ill, I ...
- Would just hope he gets his rotation completed.
 - Inquire about the person and ask if any different arrangements need to be made about doing his work.
 - Don't say anything because I don't know how to bring up the subject.
 - _____
- ____ 3. When a student brings up something she read in a professional journal only tangentially related to the topic we are discussing, I . . .
- Tell her to quit trying to get me off the track.
 - Tell her to get her mind back on the subject we are discussing.
 - Try to find a way to use her information in our discussion.

- d. _____
4. When a student asks if she can do a community research project on public health during her rotation, I would respond . . .
- “Let’s see where we can work it into your schedule and determine what resources would be necessary.”
 - “We don’t have time for that on this rotation.”
 - “That’s not part of the assigned curriculum, and besides, I don’t know anything about the community and how it contributes to public health.”
 - _____
5. When another preceptor tells me about how he used a new technique for teaching students about “over-the-counter” drugs, I would say . . .
- “This is a well established internship, not a set up to let everyone do their own thing. In the real world, people don’t keep trying new things but stick with the tried and true.”
 - “You’re breaking your neck for nothing. Neither the students or pharmacy faculty appreciate your efforts.”
 - “Sounds pretty good. What kind of results did you get and could you explain it to me sometime?”
 - _____

Scoring for the Self Assessment

No.	Answer	Points	Score
1.	a.	10	_____
	b.	20	
	c.	5	
If you score is 85-100 you have ability and are inclined to show a genuine concern for students’ feelings, interests, and problems.			
2.	a.	5	_____
	b.	20	
	c.	10	
If your score is between 50-84 you are about average in your concern for students’ feelings, interests, and problems.			
3.	a.	5	_____
	b.	10	
	c.	20	
If you score below 50 you probably have difficulty showing concern for students’ feelings, interests, and problems.			
4.	a.	20	_____
	b.	5	
	c.	10	
(There is no way to assign points for “d” answers.)			
5.	a.	5	_____
	b.	10	
	c.	20	
Total Score		_____	

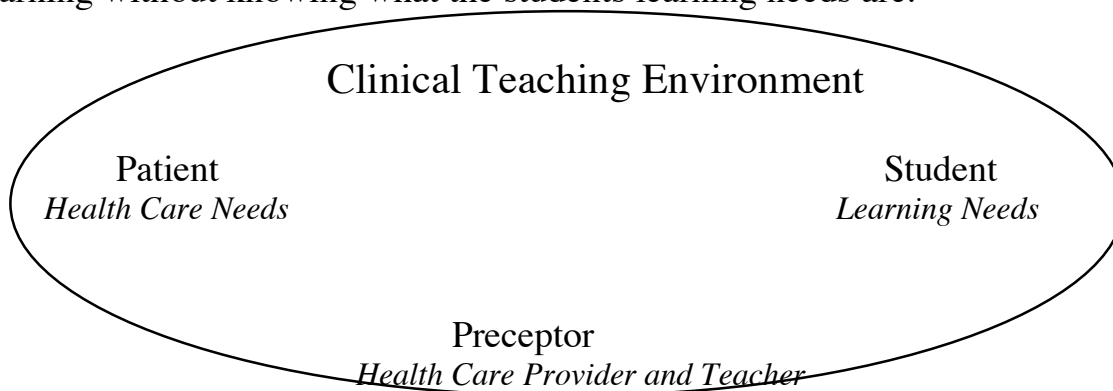
Summary

Clinical teachers are expected to play several roles when they work with students. They are required to supervise the students' work, demonstrate through role-modeling how to be a professional, and sometimes they may need to play the role of a friend. Teachers, by definition, are expected to develop a helping relationship with students. By carefully paying attention to what is happening at the moment, preceptors can help students maximize their learning.

THE CLINICAL TEACHING ENVIRONMENT

The clinical teaching environment is probably the most complex teaching environment in which anyone is asked to function. The teacher is always dealing with two sets of needs: health care needs of patients and learning needs of students. Sometimes there is a match between the patients' health care needs and the students' learning needs. In these situations the teacher has a much easier task in fulfilling the needs of both parties. The real challenge comes when there is a mismatch. For example, the patient may present with high blood pressure but the student has demonstrated mastery in this area. The student knows about hypertensive drugs and how to counsel patients regarding interaction with other medications and possible side effects. What are the learning needs that can be fulfilled in this situation? The teacher must determine whether or not the student should work with this patient realizing that learning may not occur or assign the student another task. If the student has not demonstrated a thorough knowledge of OTC products the time may be better spent studying about them rather than working with the patient who has hypertension.

The pharmacist cannot provide good health care to patients without knowing what their needs are. Likewise, the clinical teacher cannot provide good clinical learning without knowing what the students learning needs are.



Exercise 7 - Characteristics of an Effective Learning Environment
(Write your answers in the Exercise Booklet)

Think about your experience as a student. What characteristics of the environment made learning effective and efficient for you? List at least three (3) characteristics of a positive learning environment.

1.

- 2.
- 3.

Characteristics of Productive Clinical Learning Environments

The characteristics of a productive clinical environment include:

1. Enthusiastic and competent preceptor
2. Faculty and students working together over time
3. Identified learning outcomes
 - a. general learning outcomes (program director)
 - b. specific learning outcomes (student and preceptor)
4. Adequate mix of appropriate patients
5. Supportive team environment
6. Supplemental learning resources
7. Adequate time for teaching

1. Enthusiastic and competent preceptor (Sherman 1987)

One characteristic which is reported in almost all studies is the need for an enthusiastic and competent teacher. Students perceive very quickly whether or not the preceptor is happy to have them working in their clinic or pharmacy. Likewise, students want a preceptor who is up-to-date concerning the latest information and practices. Students learn about the latest research in school and expect their preceptors to keep abreast of the most recent developments. Does this mean that a preceptor must know everything? Not at all. However, if too many surprises arise students will begin to doubt whether or not they are learning what they need to learn.

2. Faculty and students working together over time

One critical factor in having a good learning environment is to have students working with the same teachers over an extended period of time. This continuous exposure allows for the development of friendly, trusting relationships. Just as important, however, is that preceptors will know the learning needs of students and be able to provide the correct experiences in order to meet these needs. If teachers are working with different students every few days, it is almost impossible for them to know the learning needs of the students or the types of experiences they have had in the past.

3. Identified learning outcomes

There are general and specific learning outcomes which students must achieve. Every internship program has a list of learning outcomes and it is important for preceptors to be aware of this list in order to provide the learning experiences and be able to complete the summative evaluation at the end of the rotation. (If preceptors do not have a list of learning outcomes they should contact the internship director and request it.)

In addition to the learning outcomes identified by the program director, it is imperative that preceptors and students develop their own list of learning outcomes which can be achieved during this rotation. These learning outcomes should include areas that are specific to this rotation and which likely will not be included in any other rotation or experience. (If students have completed previous rotations, preceptors should ask them to provide a list of the learning objectives which they achieved during those rotations. This will help to assure that the student is learning new material and not just repeating what was learned previously.) It is suggested that the preceptor and students develop this list in a collaborative manner and not have either party dictating what should be included.

4. Adequate mix of appropriate patients

Studies have been conducted to determine the number and types of patients which students see during their rotations. The results are disturbing because, while the program directors have a long list of the types of patients students are expected to see, the results show that this does not always happen. (Irby 1995)

If an adequate mix of appropriate patients is not present in order for your students to achieve the identified learning outcomes in your setting, see the section on “Structured Learning Activities” in this module.

5. Supportive team environment

Many people contribute to student learning in a clinical setting. Everyone who works with students has a potential contribution to make. Developing a supportive team environment should begin before the students arrive at the clinical setting. Preceptors should discuss with the staff the reasons why a student will be working with them and outline the expectations they have regarding the role each person will play in educating the students. When students arrive at the clinical site the preceptor should introduce the student to each person and make a brief comment about the role he/she plays in the clinical environment.

6. Supplemental learning resources

It is important to provide additional learning opportunities for students since not everything a student is supposed to learn will be presented by a patient. A collection of professional journals and books is very helpful. Also, students are familiar with the electronic data bases that are available through the library. If possible, provide the necessary equipment so students can use these data bases for patient care and research.

7. Adequate time for teaching (scheduled/planned)

Time is a crucial factor in doing a good job of teaching. It is virtually impossible to help students develop problem solving and critical thinking skills without the teacher spending time with them. Preceptors should schedule a specific time when they can meet with students to review their progress. Some preceptors schedule time each day to review the cases which students experienced and provide specific feedback. Each interaction between students and preceptors does not have to be long but it is crucial that some time be devoted to teaching each day.

In addition to the experiences with patients, preceptors should arrange to help students achieve other identified learning outcomes. e.g. develop an understanding of over-the-counter products.

STRUCTURED LEARNING EXPERIENCES

Preceptors can make student education more effective if they arrange a variety of structured learning experiences. Good teaching requires planning and the following activities can be incorporated into the learning experiences for students to better help them achieve the learning outcomes for each rotation. Some learning outcomes require more than just taking care of patient needs. Trial and error learning, while effective, is not very efficient. Even when working with patients, students can learn more if they are properly prepared in advance.

Structured learning experiences (DaRosa 1997 and Ferenchick, 1997)

1. Conferences:
 - Case of the week
 - End of the day summary
 - Journal club

2. Independent Study:
 - Independent learning modules
 - Question banks
 - Nursing home and community visits
 - Population-based projects

3. Teaching with a patient:
 - Orienting learners to patients
 1. Review the patient's medical background.
 2. Tell the student what aspect of the problem to focus on.
 3. Set guidelines for the patient encounter.
 4. Set a time limit for the patient encounter.

 - Case presentations by students in front of patient
 1. increases the teacher's "face time" with the patient.
 2. reinforces the students' role.
 3. facilitates almost instantaneous feedback from the patient.
 4. allows teacher to ask immediate follow-up questions.
 5. additional clinical examination can be done, if indicated.

1. Conferences

Conferences provide an opportunity for further practice of particular skills, time to discuss specific problems, or a forum for exchanging ideas, giving feedback and reflecting on experiences. Conferences can help students develop their

problem solving skills by being asked to analyze a patient case, develop a plan of action for the patient based upon prior learning or current literature, and being asked to evaluate how adequate this plan is.

Participants in conferences, depending on the objective and the setting, may include in addition to the preceptor and student(s), nurses, social workers, and physicians assistants.

Topics addressed during all types of conferences can link to or complement independent learning activities. Conferences can make sure that topics which are listed in the syllabus as learning outcomes but which are not addressed through patient cases are dealt with in a structured and meaningful way.

Case of the week

One case can be selected from learners' clinical experience each week. Learners would be expected to read about the patient's condition in the context of the selected case and be prepared to discuss this patient with the preceptor and other conference attendees. If teleconference or audio conference equipment is available, learners from other clinical sites could be included.

End of the day summary

The key question addressed in end of the day summary is "What did you learn today?" Reviewing the day's activities helps students translate specific experiences into their knowledge-structure framework (sometimes called schemas or patient care scripts). These reviews stimulate reflection and can help learners make connections between clinical experiences and underlying concepts. In these conferences, learners can ask specific questions about the rationales behind specific actions taken and raise judgment issues regarding management plans.

By thoughtfully considering the learning opportunities which occurred during the day, students are able to begin generalizing about categories of patients. Brief discussions also can focus on broader patient or health care issues, such as aspects of a patient's life that may contribute to his or her illness and/or recovery.

During these end of the day conferences, preceptors can spend additional time helping students with difficult problems when patients are not present.

Here are some same questions which may be used to start the end of the day discussion with students.

"Tell me about one patient experience you had today which you found interesting and challenging." "What did you learn from this experience?"

“Please review your thought process when you were working with patient ____.”

“What was your rationale for suggesting to patient ____ that she consult her physician?” What did you see in her profile that led you to that conclusion?”

Journal club

A journal club can supplement learning in the clinic with discussions and reviews of the recent literature on health care policies, systems, and health problems. Journal clubs can meet over lunch, in a faculty member’s home in the evening, or via computer using e-mail or a LISTSERV. Journal clubs provide an opportunity to discuss issues which may not routinely be presented by a patient.

2. Independent Study

Independent study activities engage learners in critical thinking and hands-on-exercise that promote application of learned knowledge to the real world of health care. Independent study activities can be used to expose learners to problems or skills they would be unlikely to see or perform at their assigned clinic site, since patient mix and availability vary.

Independent learning modules

An independent learning module is a unit of materials, which may be made available in various media, developed by the preceptor and/or the internship director to assist learners in accomplishing objectives of the clinical experience. These modules should include written objectives, corresponding learning tools and resource materials; for example, slides, imaging studies, videotapes, charts, and selected readings and/or a bibliography, and self-assessment materials such as a set of questions with an answer key or videotape expert demonstration.

Learners might be asked to complete a module before a scheduled learning experience. For example, reviewing slides of the typical eye, soft-tissue, and skin lesions associated with diabetes with descriptions of diagnostic tips might be a prerequisite to participation in a diabetes clinic.

Question banks

A pool of test items can be made available, with answer keys, to allow learners to conduct self-assessment regarding various areas which are listed in the course syllabus. Questions could be categorized according to various domains,

i.e., cardiovascular, pulmonary, infectious diseases. Further categorization could be symptoms, epidemiology, treatment, etc.

Nursing home and community visits

Learners can accompany a preceptor or other health care provider on nursing home visits, or they could go by themselves with guidance from the preceptor. There should always be a clear outline of what the students are expected to do whenever they are given an assigned task such as a nursing home visit. Health care teams are becoming more common when treating patients with long-term illnesses.

Population-based projects

Clinical rotation experiences can be richly enhanced by activities that focus on understanding how the community plays a role in the health of patients. For example, learners might visit an industrial site where some of their patients are employed to gain an understanding of how work-related accidents and illnesses can occur.

Ideas for such activities may arise from “end of the day” conferences. If these conferences reveal a possible trend in the number of patients with a particular problem, learners could conduct a review to determine whether the problem does in fact have an unusually high incidence rate in the community they serve and, if so, what could be the cause.

3. Teaching With a Patient

Learner-patient-preceptor interaction is the most commonly thought of strategy when reflecting upon clinical teaching. This can be a very rich experience for students or it can be very disappointing.

Orienting learners to their patients

How does one overcome the novice student’s inefficiency in collecting data?

After the student reviews the patient’s record and the purpose of the patient’s visit, the preceptor can provide a one-minute, patient-specific orientation. (In order for this to occur, the preceptor must have a certain amount of knowledge about this patient.) This will give learners a conceptual framework which will help them efficiently interpret the patient’s new symptoms. In orienting the student to a patient, the preceptor should:

1. review the patient’s medical background.
2. tell the student on which issues to focus.
3. set guidelines for the patient encounter.

4. set a time limit for the patient encounter.

Case presentations

Case presentations in front of the patient have several advantages.

Hearing a student's case presentation with the patient present:

1. increases the preceptor's "face time" with the patient.
2. reinforces the student's role.
3. facilitates almost instantaneous feedback from the patient.
4. allows the preceptor to ask immediate follow-up questions.

Preceptors should provide a model for how they want students to present cases. One model is the widely used SOAP notes model. SOAP means

Subjective concerns student impressions

Objective refers to data, e.g. lab tests

Assessment requires a judgment by the student concerning this patient's problem(s)

Plan refers to what action is going to be taken

Preceptors should inform students concerning how they want them to present patient cases during the initial orientation.

Summary

These structured learning experiences can be very beneficial to helping students develop their knowledge, skills, and values. Providing a structured environment in which students can function while providing patient care can increase their progress towards becoming a professional. In addition, supplementary structured activities can help students achieve the learning objectives which are not presented by patients at that particular site.

ISSUES IN CLINICAL TEACHING

Exercise 8 - Issues in Clinical Teaching Exercise

(Write your answers in the Exercise Booklet)

Please respond to each statement by circling the letters which best represent your opinion. Use the following code: SA = Strongly Agree; A = Agree; NO = No Opinion; D = Disagree; SD = Strongly Disagree

- | | | |
|-----|--|--------------|
| 1. | Students who are assigned to my clinic know what they need to learn. | SA A NO D SD |
| 2. | I have a clear understanding of what students need to learn on my rotation. | SA A NO D SD |
| 3. | I have adequate resources, including enough time, to do a good job of teaching. | SA A NO D SD |
| 4. | Students at my site have ample access to the medical literature, either in print or electronically. | SA A NO D SD |
| 5. | Learning goals are clearly described by the internship director. | SA A NO D SD |
| 6. | My role as a clinical teacher has been clearly defined by the program director. | SA A NO D SD |
| 7. | I have a clear understanding of how the material I teach fits into the overall curriculum of the students. | SA A NO D SD |
| 8. | I have a clear understanding of how students are to be evaluated while on my rotation. | SA A NO D SD |
| 9. | Teaching requires that I set aside specific time to meet with my student(s). | SA A NO D SD |
| 10. | Clinicians who know how to provide patient care automatically know how to teach. | SA A NO D SD |
| 11. | The “patient mix” in my clinic provides a well rounded experience for my students. | SA A NO D SD |
| 12. | I have ample opportunity and time to observe my learners working with patients. | SA A NO D SD |

Feedback on Issues in Clinical Teaching Exercise

If you checked nine or more either SA or A then you should have a rewarding experience with your students.

If you checked eight or fewer you may want to have a conference either with an internship program representative or a fellow preceptor who has demonstrated his/her skill as a teacher.

MOTIVATION

Motive is any condition within a person that affects that person's readiness to initiate or continue an activity.

Motivation is difficult to define but most psychologists who are concerned with learning and education use the word to describe those processes that can:

- arouse and instigate behavior.
- give direction or purpose to behavior.
- continue to allow behavior to persist.
- lead to choosing or preferring a particular behavior.

There are numerous theories of motivation and when educators discuss student motivation they usually are talking about the same concept. Motivation is that certain something which gives an individual the desire to perform some activity, e.g. listening to a patient's story, going to the gym to exercise, visiting a nursing home, or searching for a journal article.

Six Major Factors Have a Substantial Impact on Learner Motivation (Wlodkowski 1985 - Champagne 1995)

1. Attitude "is a combination of concepts, information, and emotions that results in a predisposition to respond favorably or unfavorably toward particular people, groups, ideas, events or objects."

Attitudes are learned. They are formed through our experience, instruction, and observing role models. Many students come to professional school without a well defined set of attitudes about how a professional is supposed to behave. By participating in courses and clinical activities, and by observing faculty, students develop their attitudes and values about being a health care professional. On the other hand, students come to school with an attitude about learning. If their parents have always been positive about education, the students will most likely have a positive attitude about school. However, if the school experience is negative, that attitude can change and the students may no longer have a positive attitude about going to school. The same is true for certain subjects. Many female students develop a negative attitude towards mathematics and science because of their experience in elementary school.

Since attitudes are learned, they can be changed. If a student is not motivated to learn, it is possible for an instructor to help that person change his/her attitude. However, attitude change will most often not be accomplished through fear and punishment. The following five factors could be influential in bringing about an attitude change.

2. Need "is a condition experienced by the individual as an internal force that leads the person to move in the direction of a goal."

Every human being has needs. These needs push us to action in trying to meet those needs. One basic need is food. When a person is hungry s/he will try to obtain food. Once the hunger stops the person's need for food is no longer present and the person can concentrate on accomplishing other goals. The same is true with all our needs.

One of the most popular approaches to the discussion of human needs is Maslow's hierarchy of needs. (Champagne 1995) The table on the following page identifies the need, conditions of deficiency and fulfillment.

There is good evidence that people's physiological and safety needs must be met before a person can focus on higher needs. If we accept this premise, it is easy to see that students who are having financial problems or who do not take care of their physical needs like food and sleep will have a difficult time meeting the demands of a professional curriculum.

Teachers, if they want students to be motivated to learn, should consider helping students meet their needs. Students cannot always understand how what they are learning will help them fulfill their goal of becoming a health care professional. It is the responsibility of the teacher to help the student gain this insight, if motivation to learn is important to that teacher. For example, a student may not understand why it may be necessary to inquire about a patient's recent travels in order to determine if the patient could have been affected by the environment. A person who has been back-packing in the mountains of New Mexico would be more likely to contract Lyme disease than a person who has not left his home town.

3. Stimulation "is any change in our perception or experience with our environment that makes us active." A hot stove, rock music, a loud clap of thunder, a beautiful sunset are all stimuli.

There is ample research to demonstrate that human beings almost demand stimulation. When babies were put in an orphanage and received almost no stimulation, their development was severely retarded. Prisoners of war who are locked in isolation chambers suffer greatly from lack of stimulation, unless they create it on their own, like writing their memoirs.

Most students do not intend to become bored with their course work but a non-stimulating learning environment can result in students becoming fatigued and distracted. Developing a learning environment which challenges students to be actively involved and personally responsible for practicing like a professional will provide a stimulating environment. Students who have been surveyed consistently rate rotations during which they are given responsibility higher than rotations that required them to remain passive. For example, once the level of competency has been determined, preceptors can assign specific patients to students who are then responsible for providing whatever care is necessary including patient counseling regarding the action of medication, interaction among drugs and possible side effects.

4. Affect "pertains to the emotional experience—the feelings, concerns, and passions-of the individual learner or group while learning. Learning does NOT take place in an emotional vacuum."

Students and teachers are constantly affected by their emotions. Emotions can be controlled but they cannot be turned off. Therefore, it is in the best interest of students if teachers can take into account the emotional state of students. For example, the day of the most important test of the semester is not the time to introduce complex material because a large number of students will be affected by the emotions of anxiety and fear. The teacher can ignore the students' emotions, but the students will have a difficult time being motivated to learn if their emotions are out of harmony with their thinking.

Likewise during a rotation, preceptors should be aware of the personal life of students. If a student is planning on participating in his best friend's wedding on Saturday, it is not reasonable to ask him to remain after work on Friday for an extended mid-rotation review.

5. Competence "is the concept or major motivation factor that describes our innate desire to take the initiative and effectively act upon our environment rather than remaining passive and allowing the environment to control and determine our behavior."

Anyone who has watched young children knows that they are continually trying to master some skill, either verbal or physical. A small child will work for long periods of time trying to place blocks one on top of the other. When the child is successful, s/he exhibits a great deal of satisfaction, maybe even asking for approval from observing adults. This desire to become competent continues throughout life unless some major disruption occurs in a person's life. People at all ages try to be competent at whatever they do.

Therefore, achieving competence can be a great motivator for students. Preceptors can help achieve this motivation by pointing out the progress students are making toward competence and helping to demonstrate how being competent will help the student be a more effective health care provider. For example, after observing student talking with a physician on the phone the preceptor can point out the specific points where the student performed well and why paying attention to certain details enhances patient care. People who know they are competent will almost always have self-confidence, another characteristic that is important during students education as well as while working. Students who are confident that they can learn have a much better opportunity to be successful than if they have doubts about their intellectual ability.

6. Reinforcement "is any event that maintains or increases the probability of the response it follows."

There are two basic types of reinforcers: positive and negative.

Positive reinforcement occurs when a behavior is followed by a pleasant experience. A student conducts research on a new drug and presents this information to the preceptor. The preceptor was not aware of this information and is very impressed by the student's effort. The preceptor then asks the student to present this same information at a local pharmacists meeting. Being selected to make such a presentation is only a reinforcer if the student sees this as an honor and not a punishment.

Negative reinforcement occurs when the desire to reduce or avoid an undesirable condition influences behavior. For example, if students fear that keeping poor records will cause them to be viewed as incompetent, chances are that they will continue to keep good records. Penalties, disapproval and threats often act as negative reinforcers.

Generally speaking, positive reinforcement is more effective than negative reinforcement.

Reinforcers can be either external, controlled by someone else, or internal, dependent on the individual whose behavior is being changed. Grades may be an external reinforcer for some students, while knowing that they are competent may be an internal reinforcer for other students.

Exercise 9 - Planning for Motivation

(Write your answers in the Exercise Booklet)

Keeping in mind the motivational factors described above, think about those aspects of your rotation which you believe will be motivational for your students. List at least two factors which you believe will encourage your students to achieve the learning outcomes which either the program or you have identified. For example, your setting may serve a wide variety of patients. Being able to work with patients with a variety of health conditions should help students develop their competency in many areas.

1.

2.

PREPARING FOR CLINICAL TEACHING

Ralph Tyler, in his classic book on curriculum development, suggests that teachers must answer four questions whenever they are planning to teach. (Tyler 1950. Although this book was written sometime ago, the questions Dr. Tyler posed then are as relevant today as they were when he wrote them.)

Tyler's four questions:

1. Why should this educational program exist? What needs of society, students, or the profession can be cited that will justify students spending their time here?
2. What are the goals and objectives of this educational program? Will the goals and objectives meet the identified needs (#1 above)?
3. How will the objectives of the program be met? What learning experiences will be provided for students to meet these objectives?
4. How will we know if, in fact, the objectives of the program have been met? What tests or assessment procedures will we use to measure student learning-achieving the objectives?

1. Why should this educational program exist?

Administrators and faculty in pharmacy schools are primarily responsible for answering this question. However, preceptors should be in a position to give students a valid answer if they ask the question, "Why are we required to participate in this internship and/or rotation?" One of the greatest forces motivating students to learn is relevance of the content being studied. If students understand why they are learning specific knowledge, skills, and values they are much more likely to be enthusiastic about making an effort to achieve these learning objectives. Preceptors should be prepared to explain how pharmacists contribute to improving health care and how this rotation will help students become competent pharmacists.

2. What are the goals and objectives of this educational program?

Learning objectives should be developed for each educational experience. Program directors, preceptors and students should all participate in determining

what students should learn during their rotations. Program directors should provide a detailed outline of the goals and learning objectives for the internship experience and for each rotation. Preceptors should build on this general list and develop specific learning objectives for their rotations. Each rotation has something special to offer students. It is important that preceptors think about what they can offer students and make every effort to help students achieve all the learning objectives which are assigned to them. Students should be provided the opportunity to participate in certain experiences that will help them achieve their own learning objectives in addition to the objectives assigned from program directors and preceptors.

3. How will the objectives of the program be met?

Preceptors are primarily responsible for developing learning experiences that will help students achieve all the learning objectives which have been identified. (See #2 above) Each rotation offers a variety of experiences which can help students achieve the assigned learning objectives. Preceptors should think about and plan specific learning experiences to make sure that students develop a fund of knowledge and acquire specific skills required to become a competent pharmacist. (More information is available in the section on “Structured Learning Experiences” and “Orienting Students to the Rotation.”)

4. How will we know if, in fact, the objectives of the program have been met?

This fourth question deals with evaluation of student achievement. Each program director has developed a student assessment plan which requires that preceptors evaluate their students and submit reports to the director. Preceptors should make sure that they are familiar with all forms which need to be completed before the rotation begins and if there is any doubt or confusion they should contact the program director to have all questions answered.

Three methods of preparing for teaching in the internship program

There is a wide variety among preceptors regarding how they prepare to conduct clinical teaching. Some preceptors make little or no preparation to teach. Others plan in great detail what they are going to teach before they ever meet the students. Still others do some initial planning but wait until students actually report for their rotations before they make final preparations for teaching. Preceptors can:

1. make little or no preparation.
2. make detailed lesson plans.
3. plan in collaboration with students.

Preceptors who choose the first option may spend a lot of time and effort on topics which are not central to the learner's needs. They will not be aware of the learning goals and objectives outlined by the course director, nor will they have thought about the unique learning opportunities their rotation provides for students. The learning experiences students receive will almost exclusively be determined by patients health care needs.

Preceptors who choose the second option may develop learning experiences which are inappropriate, at least for some students. Students have varied backgrounds and, consequently, some of them may have already achieved the learning objectives which were assigned to their rotation.

Option three offers the best opportunity for the clinical instruction to meet the needs of all students. It is virtually impossible to complete detailed lesson plans unless the preceptor has a thorough knowledge of which learning objectives the students have achieved and the planned learning objectives assigned to this rotation. Therefore, by discussing with students what their learning needs are and by following a teaching model which allows for students past achievements, an effective educational experience can be developed which will benefit the student and not frustrate the preceptor.

Exercise 10 - Preparing for Teaching in the Internship Program

(Write your answers in the Exercise Booklet)

Directions: Please respond to each of the following four questions. You do NOT have to write long essays but be sure the reader can understand the ideas you are communicating.

1. Why should students spend time in your rotation? How do pharmacists improve health care? What unique service do they provide?
2. What are the special goals and objectives for this rotation? (Do NOT rewrite all the objectives which are included in the material from the internship director. ONLY write the objectives which are developed by you.)
3. What learning activities will be provided to help students achieve the goals and objectives?
4. What types of evaluation will be conducted to determine whether or not the students have achieved the objectives?

ORIENTING STUDENTS TO THE ROTATION

Rationale for orienting students

Anytime people begin a new job, visit a vacation resort, are admitted to a hospital, or join the military, they receive an orientation which gives them the necessary information they need to make their experience as valuable and satisfying as possible. Often, however, students are NOT given an orientation to new learning settings, especially clinical settings. This section is designed to help preceptors plan and develop an orientation program for students who will be working with them. The time and energy devoted to orienting people to new situations is well spent. Rather than having to guess what is available or what is expected, people can devote themselves to the purposes for which they entered this new environment.

There is only one opportunity to make a first impression. Students will remember for a long time their first experience in their rotations. This first encounter will either be positive and make the students have to be there or it will create anxiety in the students.

There are three basic reasons why an orientation program is warranted.

1. To create a positive learning environment
2. To outline expectations of students and preceptors
3. To increase student motivation

1. To create a positive learning environment

Some students have difficulty moving from the preclinic to the clinic environment. Up to this point in their professional education, students have been learning about pharmacy but now they will be asked to actually practice being a pharmacist. This is a major change in expectations for them and a certain percentage of students have difficulty making this transition. A good orientation program can help create a positive learning environment to make this transition easier. Some teachers believe that it does not make any difference whether there is a positive or negative environment; the students are here to learn and they should be happy someone is willing to teach them. However, the literature suggests that people who are happy are more productive. (Isen 1991) In a teaching setting that would translate into more learning which is the purpose of the rotations. Anything preceptors can do to make the students comfortable in their new setting can only contribute to more learning.

2. To outline expectations of students and preceptors

Research shows that expectations play a role in student learning. Several researchers found that there is a direct causal relationship between what teachers expect and what students learn. If students know what is expected of them they can spend their time and energy on productive activities rather than worrying about what they should be doing.

A large percentage of disagreements in relationships come from not having clear expectations among the parties involved. Preceptors who assume that students know what is expected of them are likely to be disappointed. Furthermore, just because students are given a written outline of learning objectives, there is no guarantee that they understand exactly what they are suppose to achieve. It is strongly recommended that preceptors review with students what they are suppose to learn and how they are suppose to behave during the rotation.

3. To increase student motivation

Motivation can be increased if there is a positive relationship among the students, preceptors and support staff. People generally do not want to work in an environment where there is tension among the people in that setting. Not knowing from one minute to the next what to expect can increase anxiety and reduce learning.

Exercise 11 - Orientation Role Play One

(Write your answers in the Exercise Booklet)

Directions:

Please read the following scenario and then answer the three questions which follow. This is a verbatim transcript of a first encounter role play between a preceptor and a student.

Setting: Pharmacist is standing behind the counter talking to a patient when the new student walks in.

P1 Diane, I'm awfully busy (looking at his watch) but I'm glad you came by. You know this preceptorship is a very good idea. Its going to let you get a real feel for what is going on in the real world. What I want you to do is see every patient that I do, get an idea of the volume and diversity. Interview

each patient and get a history of present illness, write that in the record and then I'll see the patient and you go onto the next one.

- S1 I'm pretty good at taking a history of present illness now. What I need to work on . . .
- P2 (Interrupting the student) Great, then we can work very efficiently. This isn't an ivory tower, you know. We don't have lots of time to spend with every patient. We have to keep things moving along.
- S2 Sure, I can understand that.
(Preceptor is interrupted by a phone call concerning a previous interaction he had with a patient.)
- P3 Like I was saying, an old professor of mine used to say, listen to the patients and they will tell you what is wrong. You got to be really great in taking a medical history of present illness. To really get the most out of it, I think it would be a good idea if you read upon one or two medical conditions each night in a standard textbook, that will help you put it all together.
- S3 Okay. I will do that. I was hoping to become more comfortable with social and personal histories because that's an area I'm kind of weak in.
- P4 That will come later. First you have to be good at the basics.
(Preceptor looks at his watch.)
- S4 All right. I'm kind of interested in finding out what kinds of services are available in the community to help with patient care. Do you think we can get into that?
- P5 That's a bunch of garbage. People thinking they are medical experts. Stay where the real action is, right here in the pharmacy. So we understand each other. You'll be in next Monday at 8:00. Mrs. Smith will show you the ins and outs. Don't forget your reading because I am going to be quizzing you.
- S5 Okay. (Looking bewildered)

- Question One: What was your opinion about how this preceptor introduced the student to his rotation?
- Question Two: What additional information would you provide for the student?
- Question Three: If you were this preceptor's supervisor, what feedback would you give him about how to orient a student to his rotation?

Levels of Orientation

There are two major levels of orientation that students should receive.

1. the program director's general orientation to the internship
2. the preceptor's specific orientation to the rotation

DaRosa (1997) outlines various topics which should be included in these two different orientations.

1. General Orientations:

a.. Course syllabus

- 1) including objectives and expectations
- 2) description of learner's role in the internship and specific rotations
- 3) outline of teaching and learning activities to take place outside clinic hours, if applicable
- 4) performance evaluation criteria and procedures
- 5) recommended readings and resources

b. Requirements for the internship and all rotations

c. Records which must be completed and submitted to the course director

d. Explanation of independent study modules to be completed before arriving at the site, if applicable

e. Legal rules and regulations

f. Etiquette to be observed during the rotations

g. What to do in emergencies: contact persons with phone numbers

2. Site-specific Orientations:

a. Introduction of team members

b. Overview of site operations. Hours of operation, dress, personal phone calls, how to address patients, etc

c. Description of the population served, including demographics and health status

- d. Community resources available to assist in health care process
- e. Guidelines unique to site
- f. Expectations for student's role on team
- g. Learning objectives unique to rotation
- h. Information about the location (e.g. meals, telephone calls etc.).
- i. What to do in emergencies: contact persons with phone numbers

It is recommended that preceptors develop an orientation program for students who will participate in their rotation. Preceptors should examine the above list of topics which could be included in an orientation program for students. During the orientation, preceptors and students should review the information presented by the program director to assure that the rotation learning experiences are supporting the overall goals of the internship.

Most important, however, is the site-specific orientation which is the responsibility of the preceptor. While it may not be necessary to write a complete handbook for each rotation, preceptors should develop, at a minimum, an outline of the topics which need to be addressed in order to assure a comprehensive orientation program. Using this list of topics, develop an outline which you can use to orient your next students.

Exercise 12 - Orientation Plan for Students

(Write your answers in the Exercise Booklet)

1. Introduction of team members (*List team members and titles*)
2. Overview of site operations (*Policies and procedures*)
3. Description of the population served, including demographics and health status
4. Community resources available to assist in health care process
5. Guidelines unique to site (*Any information which students should know so they can achieve maximum benefit from their experience and keep them out of trouble.*)
6. Expectations for student's role
7. *Learning objectives unique to the rotation
8. Model students should use for case presentations
9. Information about the location (*where to eat, personal telephone calls etc.*)
10. What to do in emergencies: contact persons with telephone numbers

*The overall goal of the internship is to help students become competent pharmacists. Each rotation plays a critical role in the student's development as a professional. One of the most important aspects of a good student orientation is outlining the learning objectives which students are expected to achieve. Preceptors should build on the learning objectives which are provided by the program director. Preceptors and students working together should develop the learning objectives specific to the rotation. Preceptors have a unique view of what students can learn from this experience and students the best idea of where they need additional information or skills.

In planning learning objectives, it is good to keep in mind what it means to be competent. "Competence . . . is considered to be a global, multifaceted construct consisting of equal parts knowledge, experience, problem-solving ability derived from accumulated knowledge, experience and reflection, intellectual maturity, self-confidence, professional and ethical values, and, in certain professions ... motor skills." (Hendricson 1998) Therefore, learning objectives should be articulated in three domains, cognitive, affective, and psychomotor, as outlined by Gronlund (1991).

Cognitive Domain

Learning objectives in the cognitive domain identify what knowledge students must obtain in order to become a competent professional pharmacist. Most learning objectives are written in the cognitive domain although the other two domains are equally important.

Example: Knowledge about drugs

Objectives:

1. Cite at least one drug that is contraindicated with the following meds:

- | | |
|-----------------|----------|
| a. erythromycin | a. _____ |
| b. theophylline | b. _____ |
| c. phenytoin | c. _____ |

2. Describe how a antihistamine drug works in the body to reduce allergic reactions such as hay fever.

Affective Domain

Learning objectives in the affective domain identify the values and attitudes which students should demonstrate in order to be a competent professional pharmacist.

Example: Valuing patient confidentiality

Objective:

1. Describe how to protect a patient's confidentiality in the following scenarios.
 - A. A long time patient requests that you fill a prescription for his close friend and asks you to charge it to his insurance.
 - B. A patient has been diagnosed with a communicable disease and needs counseling about how to take his medication. He comes in to pick up his prescription at a very busy time with several people waiting for prescriptions. All are standing around the counter.

Psychomotor Domain

Learning objectives in the psychomotor domain identify motor skills which students must demonstrate in order to be a competent professional pharmacist. Motor skills require a knowledge base before students can demonstrate competency. Being able to describe how to perform a procedure is not the same as being able to perform that skill.

Example: Keeping records

Objectives:

1. Keep accurate and legal records of controlled substances.
2. Maintain accurate patient profiles or medication records in the computer data base.

In order to be a competent pharmacist a student must possess a unique fund of knowledge, a professional value system, and the ability to perform certain specified skills. Students have been in the process of moving from being novices when they entered pharmacy school to becoming competent practitioners through their internship experience. It is important that a clear outline of not only the program director's expectations be made known to students, but also preceptors' expectations. To emphasize a point made earlier, expectations of what students are supposed to learn should be a joint decision between preceptors and their students.

Complete the following exercise in preparation for an orientation meeting with students. During the orientation meeting it will be necessary to modify the learning outcomes section and perhaps add additional information depending on students' questions and concerns.

Exercise 13 - Setting Expectations

(Write your answers in the Exercise Booklet)

Directions: Outline your answers to the following five (5) questions. (See appendix "Orientation Topics and Materials for Preparing Learners for Assignments in Ambulatory Care Settings.")

Describe one clinical setting where you teach.

1. What are the overall goals and learning objectives for this rotation? You do not have to repeat the objectives which have been specified by the program director.

2. What are the characteristics of the population and community which we serve?

What kinds of care and services are the people seeking?

What kinds of health needs and expectations do they have?

What are their ages and backgrounds?

How do they view health and illness?

What do they expect from pharmacists?

3. What are the rules and regulations which students are expected to follow while working with you? What services and resources are available? Are there specific procedures which students are expected to follow for carrying out certain tasks, e.g. patient case presentations, record keeping of controlled substances, how to deal with phone messages for other workers? What should they do in an emergency, etc.?

4. Who are the people who will be working with the students and what roles do they play (job description including their work with students, if any)?

5. When and how will you be available? Will you see students on a scheduled basis to discuss their progress or only when there seems to be a need?

Exercise 14 - Orientation Role Play Two

(Write your answers in the Exercise Booklet)

Directions:

Please read the following scenario and then answer the three questions which follow. This is a verbatim transcript of a first encounter role play between a preceptor and a student.

Setting: Pharmacist sits down with the student in a quiet place for the orientation. No phone calls are heard and no interruptions from other staff.

- P1 Good morning Jane. I'm glad you could come in early this morning so we could get some of this work done before the day starts. I was reading your resume and was impressed by some of the work you have already done. Tell me a little bit about your pharmacy related work.
- S1 I was a Pharmacy Technician at Brooke Army Medical Center for a long time. I worked both inpatient and outpatient. I worked as a secretary for awhile. I worked at Central Texas Medical Center in San Antonio and San Marcos and I also worked a little bit at H.E.B.
- P2 So you had experience filling prescriptions.
- S2 A little bit.
- P3 Okay, great. While you are here we want to work on some skills you will need when you get out in practice, things like answering the telephone, taking new scripts. We also want to look at how well you can handle a patient profile and what kind of information we can get from those sorts of things. We want to spend a considerable amount of time looking at OTC products making sure you got those in hand very well for the boards and be able to counsel patients. Essentially, we want you to be functioning as a pharmacist when you leave here. I want you to be ready to hit the ground running when you finish your rotation. Tell me, what do you expect from your time here?
- S3 That's the same goal I have, to leave here and be functioning as a pharmacist and competent at what I'm doing. Being in Pharmacy School, I've been really afraid that maybe I would not make it to be really a competent pharmacist but that really is my goal, not just passing the boards.
- P4 All right. Well, what I'd like to do each week is sit down with you and go over your perceptions of how the week has gone and perhaps share with you some of the things we need to work on, and most of all, I want you to give me

some feedback about how you think you are doing and how we can work on some things that are not up to your level of activity yet. I think that is all we need to talk about this morning. Have fun here, enjoy the rotation.

Do you have any scheduling problems that you know we have to work around?

S4 I have four children and I just need to check with their school schedules. I don't think there is anything that I have to be at school for during the next six weeks but I will let you know for sure.

P5 We will work around those things as much as we can.

Why don't we spend the time today with you just kind of watching what I'm doing and getting into the flow of how things work around here. Let's just get to work.

S5 Okay! Thanks a lot.

Question One: What was your opinion about how this preceptor introduced the student to his rotation?

Question Two: What additional information would you provide for the student?

Question Three: If you were this preceptor's supervisor, what feedback would you give him about how to orient a student to his rotation?

CONCLUSION

Being a preceptor can be a very rewarding experience. Like any other professional responsibility, it requires specific knowledge, skills, and values. This module is designed to help you review the information you already possess concerning what it means to be a teacher in an internship program.

Thank you for your willingness to help students make the transition from being novices to becoming professional pharmacists.

Bibliography

- Champagne DW, THE INTELLIGENT PROFESSOR'S GUIDE TO TEACHING, *Interactive Teaching-Learning Systems*, Pittsburg, 1995, 53-81.
- DaRosa D *et al*, AMBULATORY TEACHING "LITE": LESS CLINIC TIME, MORE EDUCATIONALLY FULFILLING, *Academic Medicine*, Vol. 72, No. 5, May 1997, 358-61.
- Ettinger ER, ROLE MODELING FOR CLINICAL EDUCATORS, *Journal of Optometric Education*, Vol. 16, No. 2, Winter 1991, 60-62
- Ferenchick G, *et al*, STRATEGIES FOR EFFICIENT AND EFFECTIVE TEACHING IN THE AMBULATORY CARE SETTING, *Academic Medicine*, Vol. 72, No. 4, April 1997, 279-80.
- Gronlund NE, HOW TO WRITE AND USE INSTRUCTIONAL OBJECTIVES, 4th edition, MacMillian Publishing Company, New Your, 1991. 32-7.
- Hendricson WD and Kleffner JH, CURRICULAR AND INSTRUCTIONAL IMPLICATIONS OF COMPETENCY-BASED DENTAL EDUCATION, *Journal of Dental Education*, Vol. 62, No. 2, 186.
- Irby DM, CLINICAL TEACHER EFFECTIVENESS IN MEDICINE, *Journal of Medical Education*, Vol. 53, October 1978,
- Irby DM, TEACHING AND LEARNING IN AMBULATORY CARE SETTINGS: A THEMATIC REVIEW OF THE LITERATURE, *Academic Medicine*, Vol. 70, No. 10, October 1995. 898-909
- Isen AM, Posenzweig MD, and Young MJ, THE INFLUENCE OF POSITIVE AFFECT ON CLINICAL PROBLEM SOLVING, *Medical Decision Making*, Vol. 11, No. 3 1991, 221-7
- Rogers CR, THE CHARACTERISTICS OF A HELPING RELATIONSHIP, Address delivered at the closing session of the Conference of the American Personnel and Guidance Association in St. Louis on Thursday, April 3, 1958.
- Schön DA, EDUCATING THE REFLECTIVE PRACTITIONER, Jossey-Bass Publishers, San Francisco, 1991.
- Sherman TM *et al.*, THE QUEST FOR EXCELLENCE IN UNIVERSITY TEACHING, *Journal of Higher Education*, 58 (1), 66-84, 1987.
- Smith CS and Irby DM, THE ROLES OF EXPERIENCE AND REFLECTION IN AMBULATORY CARE EDUCATION, *Academic Medicine*, Vol. 72, No. 1 1997, 32-5
- Tyler RW, BASIC PRINCIPLES OF CURRICULUM DEVELOPMENT, *University of Chicago Press*, 1950, 12.

Westberg J and Jason H, COLLABORATIVE CLINICAL EDUCATION, *Springer Publishing Company*, New York, 1993

Wlodkowski RJ, ENHANCING ADULT MOTIVATION TO LEARN, Josses-Bass Publishers, San Francisco. 1995

An important article for you to review related to the module *Becoming an Effective Preceptor* is:

Teaching and Learning in Ambulatory Care Settings: A Thematic Review of the Literature

By David M. Irby, Ph.D., *Academic Medicine*, Vol 70 No. 10, 1995

This article reviews the medical literature but in most instances the word “pharmacy” could be used for “medicine”. Dr. Irby describes the methodology for each section that is interesting but not the most important. You are encouraged to concentrate on the discussion of the results (e.g. “Recommendations for Facilitating Learning, page 906) in each section and to look at the principles discussed rather than the fact that the word medicine is used. For example, on page 898 where the author states, “. . . the important and unique learning opportunities offered in outpatient clinics. These include allowing learners to:

1. care for patients seen primarily in outpatient settings--especially patients who have chronic illnesses,
2. observed the natural and treated progression of diseases through continuity of care,
3. practice health promotion and disease prevention strategies.
4. develop patient communication and negotiation skills, and
5. deal with social, financial, and ethical aspects of medical care.”

These goals are similar for pharmacy internships.

Likewise the questions addressed in Dr. Irby’s research are applicable to the pharmacy preceptor. The first three questions have direct applicability to pharmacy while the fourth may be less directly related. “Four specific questions are examined in this article:

1. What are the patient-mix and clinic-contextual variables of ambulatory settings?
2. What are the amounts, duration, and contents of teacher-learner interactions in ambulatory settings?
3. What are the characteristics of effective clinical teachers and effective teaching methods in ambulatory settings?
4. What do medical students and residents learn in ambulatory care clinics?”

WHEN YOU READ THIS ARTICLE TRY TO ANSWER THIS QUESTION, “Do I behave like the preceptors who are described in these various studies?” For example, the article states on page 902 that “The percentage of case presentations within which feedback was offered ranged from 0% to 16% with most studies reporting 3-6%.” HOW OFTEN AND MUCH FEEDBACK DO YOU GIVE TO YOUR STUDENTS?

Again, the emphasis is on the last section, “Recommendations for Facilitating Learning.”

Unfortunately, permission was not granted to publish this article on the Web. The College does, however, have permission to reprint the article and a copy can be provided upon request.

