Clinical Teaching and Learning in Midwifery and Women's Health

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Although there is an abundance of literature about clinical teaching in the health professions, a much smaller body of information focuses on the art and science of clinical teaching in midwifery and women's health. We reviewed preceptor handbooks, training manuals, and Web sites created by nursing and nurse-midwifery education programs, medical and pharmacy schools, and national associations of health professionals. Using the search terms ⟨clinical teaching, clinical learning, preceptor, clerkship, residency training, and midwifery education⟩, we searched the MEDLINE and CINAHL databases and health sciences libraries for relevant articles and books. The information and practical strategies about clinical teaching that we found are synthesized and presented in this article. It includes a discussion of challenges in clinical teaching; an overview of expectations and responsibilities of the education program, students, and preceptors; suggestions about orienting students to clinical sites; clinical teaching strategies and skills; suggestions for incorporating critical thinking and evidence-based care into clinical teaching; guidelines for giving constructive feedback and evaluation; characteristics of excellent clinical teachers; and suggestions about how education programs and professional associations can support and develop clinical sites and preceptors. The Appendix contains manuals, books, and Web sites devoted to clinical teaching. J Midwifery Womens Health 2003;48:398–406 © 2003 by the American College of Nurse-Midwives.

keywords: clinical teaching, clinical learning, preceptor, clerkship, residency training, midwifery education

Clinical teaching* lies at the heart of midwifery and women's health education. The contribution that clinical preceptors make to students' professional development cannot be overestimated. Midwives and Advanced Practice Nurses (APNs) have an exemplary tradition of serving as clinical preceptors, and most welcome the challenge and stimulation of working with students. Precepting is a way that clinicians stay up to date, improve their critical thinking skills, and enhance their self-esteem and confidence.[1] Yet given the demands on clinicians to provide evidence-based care and to be highly productive, it is essential to find ways of making clinical teaching efficient, intellectually rigorous, and well integrated into clinical practice.

FROM EXPERT CLINICIAN TO EXPERT TEACHER

Although the importance of clinical teaching is universally acknowledged in the health professions, little formal training is offered to prepare practitioners for this important role. Joyce Thompson, who pioneered the Teacher Education Program at the University of Pennsylvania, disputes the myth that good clinicians will automatically be good teachers and argues that clinical teaching workshops and courses are important for preceptor development.[2] Most nurse practitioners and midwives can become better clinical teachers when they are exposed to information and teaching strategies for educating health science students. This article reviews effective strategies for clinical teaching based on a review of the literature.

CHARACTERISTICS OF EXCELLENT CLINICAL TEACHERS

Excellent clinical teachers integrate knowledge about teaching and learning, clinical skills, critical thinking, and evidence-based care into their clinical teaching.[3,4] Behaviors and characteristics demonstrated by expert clinical teachers are listed in Table 1.

Kennedy's study of exemplary midwifery practice points out clinician characteristics that are especially intertwined with the midwifery model of care. Midwife-clinician role models in her study have mastered the art of "doing nothing well," by supporting the normalcy of pregnancy and birth, remaining vigilant to attention and detail, respecting the uniqueness of the woman, and helping her to control the birthing process.[5]

CLINICAL TEACHING CHALLENGES

Several factors make clinical teaching a challenge for preceptors, students, and faculty today:

Preceptors are pressured to see more patients in less time and worried about being slowed down by students. It can be difficult to arrange additional examination rooms or call rooms for learners. The atmosphere in the health facility may be chaotic and stressful, as hospitals and practices merge, dissolve, and change to survive.

Students face multiple stresses that affect their clinical experience, including time and financial pressures; long commutes; juggling responsibilities for family,

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* In this article, clinical teaching refers to clinical supervision of students, whether by academic or clinical faculty, community midwives, or nurse-practitioners.

1526-9523/03/$30.00 • doi:10.1016/j.jmwh.2003.08.005

Table 1. Characteristics of Expert Clinical Teachers

Competence
A broad base of knowledge in their chosen field
Enjoyment of teaching and patient care
Respect for students and patients
Accessibility and supportiveness
Being well-organized
Giving clear direction to students about what is expected.
Limiting the amount of content that they teach in a given encounter
Teaching in a practical, engaging manner
Providing frequent, nonthreatening feedback
Preparing materials and planning teaching experiences ahead of time
Taking advantage of teachable moments that arise in the clinical setting
Teaching at the student's level
Continuously reflecting on their teaching successes and failures
Remaining open to change and experimenting with new approaches

work, and school; insufficient time to study; and, for some, the role change from expert nurse to novice midwife or APN.

Faculty in research-intensive universities face increasing pressure to publish and secure research grants, leaving less time available to work with students and preceptors. Candidates for tenure may be discouraged from engaging in more than token clinical practice. As teachers move further from practice, their ability to support and evaluate the clinical learning process may be compromised.

PREPARING FOR CLINICAL TEACHING

Preceptors, staff, clients, students, and faculty must all prepare for the student's entry into the clinical setting. Plans should be made for getting to know the student, finding out how s/he learns best, orienting him/her to the site, and clarifying expectations and responsibilities of the education program, the student, and the clinical preceptor. All the teaching materials we reviewed stressed the importance of clarifying expectations early in the process. Guidelines for how to do this were similar in the fields of midwifery, advanced practice nursing, medicine, and physical therapy; they are summarized in Table 2.

The education program should provide information and resources for preceptor development, including suggestions to help the preceptor and student to build an effective teaching-learning relationship. Because today's preceptors may be working with students from several different educational programs, it is important to clarify each program's structure, curriculum, and educational philosophy. Providing monetary compensation to clinical sites is a thorny issue, because some midwifery programs are able to pay clinical sites, whereas others are prohibited from doing so. Other types of compensation that are often offered include free or reduced-price continuing education programs, Internet/e-mail accounts, and library privileges.

When making a clinical placement, faculty should consider the fit of the student with the preceptor and practice. In some programs, students fill out a Clinical Preferences Form before clinical assignments are made; they detail their prior experience, personal constraints (e.g., family, travel constraints), and desires for the next clinical rotation (e.g., patient population, volume, risk level, and precepting style that is most helpful to them). It is helpful to have a class discussion about clinical survival skills before the beginning of the clinical rotation. During this session, students appreciate hearing from more advanced students or recent graduates who recently completed similar clinical rotations.

Some education programs have created a Clinical Coordinator position to link the academic program and clinical sites more effectively. The Clinical Coordinator has a key role in recruiting and retaining preceptors and clinical sites and arranging student placements. S/he may also provide teaching and learning resources to faculty and preceptors and supervise clinical activities. This multifaceted role requires clinical and academic competence, creativity, flexibility, and good communication skills.[6]

Before taking students, preceptors should first assess their site to determine whether there is sufficient time, space, patient volume, and facility support for a positive clinical learning experience. Clinical sites should inform the education program of their own criteria for acceptable students; for example, a midwifery practice may be unwilling to precept students who lack prior obstetrical nursing experience.

It is helpful to let other staff know that the student will be coming and to involve them in welcoming and orienting the student to the clinical setting. For example, a staff member who knows the neighborhood might enjoy orienting the student to local resources, such as the WIC program, childbirth classes, or women's shelters, or informing her/him about a local factory or store where many patients are employed. Some clinical sites post a welcome notice in the waiting room with the student's picture and biosketch along with a message from the practice describing her role during the rotation.

Students will get the most out of clinical rotations by cultivating an attitude of friendliness and respect for patients and staff and trying to learn as much as possible. They should be punctual, appropriately dressed, learn the names and responsibilities of staff members, and become

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Table 2. Expectations and Responsibilities in Clinical Teaching

Faculty/Program	Preceptor	Student
Provide learning objectives	Demonstrate safe, evidence-based practice	Dress professionally
Provide tools for feedback/evaluation	Hold current licensure	Be prompt and courteous
Clarify grading criteria and responsibility	Be aware of curriculum, learning objectives, evaluation forms, grading criteria	Know own learning needs
Initiate student and preceptor contact	Orient student to site	Be familiar with clinical objectives, evaluation forms, grading criteria
Resolve clinical problems in collaboration with preceptor and student	Hold realistic expectations for student performance	Develop personal learning objectives
Provide to preceptor: orientation to clinical teaching, student bio, program objectives, curriculum, and evaluation forms	Create optimal learning opportunities	Evaluate self, preceptor, site
Provide to student: description, location, and contact information for the practice and preceptor, clinical objectives, evaluation tools, are grading criteria	Provide timely, constructive feedback	Take responsibility for own learning
	Evaluate student performance fairly and accurately	Adapt life to clinical placement
	Optimize clinical schedule for teaching	Provide needed documents and information
		Follow clinical site policies
		Know how to contact site and preceptor
		Notify site/preceptor/program in advance of absence or lateness

knowledgeable about resources and issues in the surrounding community. They should bring copies of the program's clinical objectives, evaluation forms, and grading criteria and be ready to share these with preceptors as needed. They should let the preceptor know their learning needs, including the need to work on specific skills, such as interpreting fetal monitor tracings or starting IVs.

ORIENTATION TO THE CLINICAL SITE

All the teaching materials we reviewed emphasized the need to provide students with a thorough orientation to the clinical site. It is helpful to schedule the orientation prior to the first clinical session and to reserve 45 to 60 minutes for this initial meeting, at a time that does not compete with patient care responsibilities. One primary care program has the student accompany a patient through the entire care process from check-in to discharge to learn about patient flow through the facility.[7]

The initial meeting is a time to begin to know each other and clarify expectations and responsibilities. The student's schedule should be described and negotiated, and s/he should be informed of rounds and conferences that s/he is expected to attend. The student may want to describe her prior clinical experiences and explain what kinds of feedback are most helpful for her. The preceptor may also want to share insights from her own student experiences and explain how these have influenced her precepting style. Reading Varney's essay on the Circle of Safety in clinical teaching[8] together could stimulate the preceptor and student to discuss issues of clinical supervision and student independence.

The orientation should include a tour of the facility; guidance about where to review patient records and write notes; and explanations about the computers, telephone system, and parking. The preceptor should inform the student about the schedule and timing of patient visits and breaks, orient her to the facility's forms and charting procedures, describe how the student will review charts and present patients, and discuss how much supervision the preceptor will provide. It is helpful to review the education program's evaluation forms together, highlighting the learning objectives to be accomplished, special needs of the student, and the time frame for evaluations.

THE PROCESS OF CLINICAL TEACHING

Efficient Clinical Teaching

A major challenge for preceptors is integrating clinical teaching efficiently with patient care, so that the workload is not unduly increased and the patient flow does not bog down. Clinical teaching does take extra time; one family practice study found that having a learner in the practice increased the workload by about 45 minutes per day.[9] Preceptors in that study dealt with this in several ways: some worked longer days, whereas others scheduled fewer patients or different kinds of appointments when a learner was present. Midwifery and APN preceptors in the outpatient setting may be able to block out appointment slots in the schedule, which can be used for clinical teaching or catching up with patient flow.

Several sources emphasized the utility and efficiency of teaching in the patient's presence[10] while listening and responding to the student's report. This gives the woman more face-to-face time with the preceptor and the chance to correct information that the student has misunderstood. It also gives the student valuable practice in conveying sensitive information in a neutral, nonjudgmental manner. Once students can partially conduct a visit alone, a more efficient pattern can be developed, in which the preceptor and student see patients simultaneously. When the preceptor completes her/his visit, s/he joins the student and patient, reviews the findings and care plan, and checks any

questionable physical findings. The preceptor can then see another patient while the student completes patient teaching and writes up her/his findings. Because there may not be time for discussion after every visit, it can be helpful for the student to carry a notebook in which to record questions about patient management for later discussion.

Beginning students should start out with a small number of less complicated patients and progress to seeing higher numbers of patients with more complex needs as their clinical knowledge and skills develop. Asking a beginning student to shadow a busy midwife who is rushing through a series of clinical encounters may result in much frustration and little learning. Reviewing the schedule before clinic may indicate which patients are most appropriate for the student to see; the preceptor and student can also determine how many patient visits is a reasonable goal at a given point in the rotation. To teach efficiently, it may be necessary to set time limits on student assignments (e.g., "Get as much history as you can in 10 minutes") and on your interactions with students (e.g., "You can have 5 minutes to present the patient, then I will need 5 minutes to give you feedback and ask questions"). In a busy labor ward, it may make sense to assign the student to provide in-depth care to only one or two patients, even if the preceptor is responsible for the care of a greater number.

Finally, it is important for the preceptor to be realistic about how much s/he attempts to teach. Although every patient interaction offers innumerable teaching points, there may be time to address only one or two in the busy clinical setting. Ask yourself: What are the most relevant teaching points I can make now for this student?

The One-Minute Preceptor Strategy

A clinical teaching strategy that has been taught and tested in physician training is the "One-Minute Preceptor" model.[11,12] This strategy recognizes that much clinical teaching involves the learner interviewing and examining the patient and then presenting the findings to the preceptor. Studies show that these interactions last around 10 minutes, including 6 minutes of the student's presentation, 3 minutes of questions and clarifications, and 1 minute of preceptor teaching. The One-Minute Preceptor method can be used to maximize clinical teaching time (Table 3).

Table 3. The One-Minute Preceptor

Precepting Strategy	Example
Get a commitment from the student about some aspect of the diagnosis	"Do you think she needs to be admitted to the hospital today?"
Probe for supporting evidence	"What aspects of the physical exam support your diagnosis?"
Reinforce what was done well	"Your presentation was well organized, and included a focused history, physical findings, and lab results."
Point out errors and omissions in the presentation and care plan	"By listening to her more closely, you might have discovered the main reason for today's visit."
Teach a general principle or indicate how to find more information about the issue	"In urinary tract infections, the urinalysis will most often show. . . ."
Conclude the teaching encounter	"Let's go back in and see her together. I'll recheck the physical exam and confirm your diagnosis."

Adapted from: University of Kansas.[12]

How Many Preceptors?

The beginning student and the student beginning a new rotation or clinical site will benefit from having a consistent preceptor. A single preceptor will be better able to evaluate the student's clinical progress and to structure meaningful clinical experiences. In addition, one-to-one interaction usually facilitates the development of a supportive relationship. When a student is assigned to multiple preceptors, it may take longer for the group to recognize strengths or difficulties, especially in a busy practice that lacks a mechanism for preceptor communication about students. Most beginning students crave consistency and the security of learning one approach; as they become more experienced and confident, they are better able to appreciate the diverse styles of different practitioners. However, it is worthwhile to encourage other practitioners to call the student in to observe unusual findings, such as malpresentations or signs of sexually transmitted infections.

How Much Supervision?

In the beginning of an ambulatory care rotation, most preceptors and education programs recommend that the preceptor remain in the room and observe the entire patient visit. In fact, some preceptors remain in the room with students throughout the rotation, albeit assuming a more passive, observational role as the student grows in ability and confidence. Preceptors generally practice close supervision and validate physical findings until they gain confidence in the student's clinical ability and reasoning. As the student develops clinical competence, many preceptors will allow her to conduct patient visits semi-independently, while listening to her report, reviewing the chart, and coming in to confirm findings and interact with the patient at the end of the visit. Ongoing formative evaluations will provide evidence to increase independence level. No woman who has been cared for by a student should ever leave the office or birthing unit until her case has been reviewed with the preceptor.

CRITICAL THINKING AND THE MANAGEMENT PROCESS

A core aspect of clinical precepting is teaching students to use the management process and incorporate critical thinking as they provide individualized, evidence-based patient care. Because knowledge evolves so quickly in the health sciences, cognitive information may rapidly become outdated. But the student who learns to think independently and seek out the best evidence while applying the management process has a framework within which emerging information can be continuously integrated.

The management process consists of a series of well-known steps: Data collection (history, physical examination, labs), Assessment, Planning, Implementation, and Evaluation. Critical thinking is characterized by Thompson as a process involving reflection, reasoning, and exploration of the unknown and unexpected before making a decision.[2] When applying critical thinking to the management process, the student is forced to recognize anew the old precept that every woman, every pregnancy, every labor, and every patient encounter is different; thus, she must approach the patient with a mind that is open to new data and new approaches. Critical thinking is not standardized, and students who are critical thinkers may sometimes irritate their faculty and preceptors, who may remind them that "this is what the textbook says about X," or "this is how we manage that here." Reflecting on this challenge, Thompson ruefully notes that "the dominant teaching modes used during nursing education actually curtail the development of critical thinking…it is possible to turn off the inquisitive, reflective impulses in learners by the way we teach."[2] She encourages teachers to create an atmosphere that fosters critical thinking, risk taking, discovery, and trust.

Fostering Evidence-Based Care

Providing evidence-based care requires basing patient management on three essential elements: (1) the best evidence from research, (2) the clinician's experience and judgment, and (3) patient preferences. Evidence from randomized controlled trials and systematic reviews is well developed in the fields of midwifery and obstetrics, and there is an abundance of high-quality information on which to base clinical decisions.[13,14] Midwifery and APN education programs are increasingly stressing the need for evidence-based practice and requiring students to read and evaluate current research in addition to their textbooks to learn to apply emerging evidence to clinical decision making. In "the real world," the student also may encounter practitioners who are functioning under time pressures or institutional constraints and basing practice on prior experience, personal preference and/or habit.[15] Such differences can confuse the student and inhibit learning.

Erickson-Owens and Kennedy have emphasized the importance of evidence-based care in clinical teaching, and they encourage preceptors to seize teachable moments to promote a four-step strategy.[16] When the student asks for guidance about what to do, or proposes a management plan, the preceptor can (1) ask whether evidence exists relevant to the question or plan; (2) help the student to locate evidence; (3) guide her in appraising the quality of the evidence; and, if warranted, (4) develop a new management plan based on the evidence. This approach is facilitated if resources, such as the on-line Cochrane database, current practice guidelines, and library facilities, are readily available in the clinical setting. If not, the search for evidence can be assigned as clinical "homework," and the student can report back to the preceptor with the results of her investigation. Lack of time, energy, reference materials, and research training can all be barriers to incorporating evidence-based care into clinical teaching. Yet, once the evidence-based care strategy becomes integrated into practice, it can provide preceptors with a consistent, up-to-date, and safe approach to teaching the management process to students.

Giving and Receiving Report

Learning to "give report" about a client's condition concisely and accurately is an important skill that should be taught in the classroom and honed during clinical rotations. It is helpful for the education program to teach a standard format for giving report, which is also shared with preceptors. The beginning student may need to give report about each patient several times: after reviewing the chart and before seeing the patient; after interviewing the patient and before performing the physical examination; and to summarize the visit at its conclusion. Following a consistent format in which information is presented in an expected sequence helps both the presenter and the listener to comprehend the situation. The preceptor can help the student learn to give brief, accurate reports that focus on important issues and use correct medical terminology. The student's report provides a window onto her clinical thinking and offers a teachable moment during which the preceptor can ask questions and assess the completeness of care, even if she was not present during the entire patient visit.

CREATING STRUCTURED LEARNING EXPERIENCES

Creating structured learning experiences enhances students' clinical experiences and helps them achieve learning objectives that might not otherwise be met in a particular clinical setting. If, upon reviewing the objectives for an ambulatory care rotation, a preceptor realizes that s/he does not routinely provide certain required experiences, s/he might be able to plan alternative ways to provide them. For example, a midwifery preceptor might ask a neonatal nurse-practitioner to supervise the student in perfecting newborn exam skills or arrange clinic time for the student with a women's health nurse-practitioner who excels in caring for perimenopausal women. Preceptors and the education program can work together to develop alternative learning experi-

Table 4. Characteristics of Constructive Feedback

Constructive Feedback IS. . .	Constructive Feedback IS NOT. . .
Descriptive	Evaluative
Specific and precise	General
Focused on behavior	Focused on personality
Timely	Delayed
Nonthreatening	Hurtful
Clearly communicated	Assumed
Limited in scope	Overwhelming
A stimulus for reflection and change	Punitive or shaming
Followed by a plan for action	A stand-alone event

ences such as informal conferences, independent study, and clinical homework.[17]

Informal conferences could include having the student present a "case of the week" to the preceptor and other available clinicians in the practice; an "end of the day summary," in which the student reflects on what s/he learned that day and discusses patient management with the preceptor; or participating in a journal club focusing on patient management issues.

Independent study activities can help students focus on problems or skills that may not arise in the course of the day's work. They could include suturing placentas or performing newborn examinations during quiet times in the labor ward; having available independent study modules and question banks that focus on patient management issues; and sending students on home visits to postpartum mothers, perhaps accompanying a visiting nurse or breastfeeding peer counselor. Alternatively, a student could deepen her public health perspective by visiting the Maternal & Child Health section of the state health department to learn about work they are doing to prevent low birth weight or maternal mortality.

Clinical homework can mean assigning students to look up information about patient conditions or management encountered in the clinical setting and then honoring their effort by listening to and discussing their findings on your next day together.

FEEDBACK AND EVALUATION

Giving feedback and evaluating student performance are critical clinical teaching skills. Characteristics of constructive feedback and evaluation are listed in Table 4. The purpose of feedback is to help the student by providing concrete observations and suggestions about how to improve clinical performance. The most effective feedback is specific, objective, and timely. Many education programs require students to complete daily self-assessments, and it is important to carefully consider these before giving feedback, because they offer a window into the student's view of her clinical performance and her readiness to change. Feedback for a student who is oblivious to performance deficits will be quite different from that given to a self-critical student who is trying to improve.

Although it can be difficult to find time to give feedback promptly, the teaching materials reviewed all emphasized that feedback is most meaningful when given as soon as possible after the event. Every effort should be made to schedule time for feedback regularly during the clinical day, perhaps at lunch hour, while commuting with the student, or at the end of the day. If necessary, feedback and discussion can also take place by phone or e-mail within a day or two of the session. The student should fill out her daily evaluation form and give it to the preceptor before leaving the clinical area; and the preceptor should try to respond while the day's events are fresh in her mind. Putting off the daily evaluations and dealing with them in a bunch toward the end of the rotation results in much less meaningful feedback and denies the student an important opportunity to improve clinical performance.

Compared with feedback, evaluation is a more formal assessment of the student's performance. It summarizes the preceptor's daily observations and assessments and is usually scheduled at the midpoint (formative evaluation) and at the end of the rotation (summative evaluation). Formative evaluation is ongoing and leads to specific plans for improvement, whereas summative evaluation reflects progress over a completed time period. The grade resulting from the evaluation usually reflects a joint determination by the preceptor and program faculty of whether (and how well) the student has met the objectives of the rotation. If the course objectives and expectations have been reviewed by the preceptor and student, and if feedback has been given honestly and regularly, the evaluation and grade should come as no surprise.

It is always uncomfortable to give students negative feedback or evaluations. To add to the difficulty, the student who is not meeting the clinical objectives may be unaware of her deficits and/or unwilling to accept critical input. When a preceptor becomes aware that an unsatisfactory evaluation may be on the horizon, she should seek the involvement and support of the program faculty. The faculty member should then meet with the preceptor and student to discuss the problems identified and measures to correct them. If necessary, a Learning Plan or Learning Contract to address the issues can then be jointly created. The same management framework that is used in patient care can also be applied to student learning problems. Table 5 is an example of how clinical teachers can apply the management process to help to identify and address student-learning difficulties.

Site Visits

Faculty members generally contact the preceptor several times during the rotation. They usually visit each clinical

Table 5. Applying the Management Process to Clinical Learning Problems

The management process can be usefully applied to clinical learning problems, as well as to patient management. Consider student midwife Mary who is half-way through her second clinical rotation. As Mary's preceptor, you harbor the following concerns: "She doesn't seem to understand how to make a differential diagnoses. Sometimes she can't even identify the most likely diagnosis or recognize an obvious abnormality."

1. Collect data. Is Mary having difficulty gathering all the necessary information on which to base her decision? Does she lack skills in interviewing or physical assessment? Does she obtain all the needed information but then have a problem making sense of it? What are her thought processes as she tries to arrive at a clinical diagnosis? How does Mary view her own clinical progress?

2. Assess the problem. After observing and talking with Mary, you realize that while she collects history and physical exam data quite accurately, she has difficulty synthesizing it to develop a differential diagnosis. Furthermore, she does not know the clinical significance of many lab tests.

3. Plan the intervention. This problem needs immediate attention, because Mary will continue to flounder until she learns to synthesize and interpret clinical data. After discussing the situation with the academic coordinator, you tentatively conclude that Mary has a cognitive learning problem, related to processing information. You decide to remain with Mary for the entire visit with the first two patients each morning this week, and to role-model how you gather and synthesize information to arrive at a list of differential diagnoses. After each visit, it may help if you will think out loud with Mary, explaining your reasoning process. Mary will then see the next few patients and present them formally to you, including history, physical exam, chief complaint, and differential diagnosis. Make sure the student understands and agrees to the plan prior to implementing it.

4. Implement the plan. As you and Mary carry out this plan, you note that it seems to be helping her to stay organized. By the end of the week, she can more easily formulate differential diagnoses based on the data she gathered. To consolidate learning, you agree to continue the plan for another week.

5. Evaluate the effectiveness of the plan. Was the educational intervention successful? Are further steps needed? Follow up with the academic coordinator.

site at least once during the semester, and they should be readily available to help to resolve learning problems that may arise. It is very helpful for the faculty member to talk with both the preceptor and the student before a site visit to learn more about how the clinical experience is going from both of their perspectives. It is not unusual for problems that were not noted on the clinical evaluation forms to surface during the phone conversation. Site visits can take many forms, but they usually include reviewing charts with the student, observing the student working with patients, case discussions, and observation of the preceptor-student working relationship. During site visits, it is very helpful to use a structured observation tool to collect information about the student's performance and the clinical site.

PROVIDING SUPPORT FOR CLINICAL TEACHING

Our review revealed a rich variety of clinical teaching resources and strategies that have been developed by the health professions. Yet it also indicated the need for more training and support for clinical teaching in midwifery and APN education programs. Developing high-quality teaching and learning resources is a time-intensive and expensive process, and these tasks could be shared among education programs and professional associations for the mutual benefit of all. Some excellent resources (Appendix A) have been developed and could be shared more widely, both among education programs and with preceptors and students.[18–21] We noted with interest that both the National Organization of Nurse Practitioner Faculties (NONPF) and the American Physical Therapy Association (APTA) have produced extensive clinical education manuals for their professions. The NONPF manual sets out clear expectations for all persons involved in nurse-practitioner education and offers an extensive bibliography and Web-based resources for preceptors.[22] The APTA manual consists of voluntary guidelines for education programs and clinical preceptors about how to develop and enhance clinical education.[23] Such a manual could be a powerful national resource for clinical education in midwifery as well.

CONCLUSION

In conclusion, we offer the following recommendations to support and enhance clinical teaching in midwifery and women's health: (1) Develop a national Midwifery and Women's Health Preceptor Training Manual, which could then be customized by education programs. This could be authored by a national working group of educators and clinicians. (2) Create a Clinical Preceptor Web page, including a Clinical Teaching Resources Archive, linked to the Web sites of the American College of Nurse-Midwives, the American College of Nurse-Practitioners, and the American Academy of Nurse Practioners and their respective education programs. (3) Offer Preceptor Development Programs with continuing education credit at state, regional, and national professional meetings. (4) Offer short Clinical Certification Courses for preceptors with CE credit.

By working together and sharing resources, midwifery and women's health APN education programs will increase our ability to support and nurture one of our most precious resources—our dedicated and hardworking clinical preceptors.

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APPENDIX A. Resources for Clinical Teaching

Manuals and Books

Oregon Health and Science University, School of Nursing, Instructions for Self-Study Module: Precepting at the Beginning of the 21st Century. 2002

This self-study module helps preceptors to assess themselves and their clinical site for teaching readiness and discusses various approaches to teaching. It has four articles about precepting and an insightful FAQ section about what to consider before becoming a preceptor. A video of two students discussing their clinical learning experiences accompanies this module. (35 pages)

State University of New York at Stoney Brook, Health Science Center, School of Nursing: Nurse-Midwifery Preceptor Manual. 2002

This well-organized manual is based on a literature review of educational concepts and mentoring as well as the authors' teaching experience. It reviews teaching and learning styles and includes a thoughtful section on cultural competence for clinical preceptors with an extensive bibliography. It also has sections on feedback and evaluation, supervision of student in the inpatient and outpatient areas, and working with the student who has problems. Case studies are included that offer examples of precepting situations requiring intervention. The manual is ACNM approved for .5 CEUs upon completion and submission to SUNY. Examples of SUNY's clinical evaluation tools are included. (97 pages)

The National Organization of Nurse Practitioner Faculties (NONPF), Washington, DC, Partners in NP Education: A Preceptor Manual for NP Programs, Faculty, Preceptors and Students. 2000

This manual is divided into nine modules and includes a section devoted to Preceptor Guidelines. It lists clear expectations for all involved in NP education and gives resources for preceptors in the form of a bibliography and Web-based citations. (128 pages)

APPENDIX A. Continued

University of Minnesota School of Nursing, Nurse-Midwife Program and Women's Health Care Nurse Practitioner Program: Preceptor Education: Clinical Teaching. 2002	This manual aims "to provide clinical preceptors with additional educational tools for use in the clinical learning environment." Although some information is relevant only to University of Minnesota preceptors, general information is also included about preceptor guidelines, rights and responsibilities of preceptors, and clinical teaching. There is a reference list of current articles, a hard copy of a slide presentation on teaching and learning, and examples of preceptor evaluation tools used at the University of Minnesota. (33 pages)
Institute for Midwifery, Women, & Health: Clinical Faculty Introduction to Teaching Manual. 2000	This manual was developed as a self-study module for clinical preceptors, particularly those in distance education programs. It includes principles of adult education, descriptions of diverse learning styles, methods of clinical teaching and evaluation, examples of clinical learning problems and strategies to resolve them, and guidelines for collaboration between the preceptor and the education program. (17 pages of text plus 22 articles and handouts about clinical teaching)
Thompson, J.E., Kershbaumer, R.M., Krisman-Scott, M.A. Educating Advanced Practice Nurses and Midwives: From Practice to Teaching. 2001	This book is a guide for new teachers of APNs and midwives. The book developed from the post-master's teaching certificate program that Thompson and colleagues offered to APN and midwifery faculty in the 1990s. It provides a concise overview of the theories, principles, and challenges of teaching and learning. The authors move from broad issues of philosophy and values to more specific concepts (with examples) such as critical thinking, classroom teaching methods, clinical teaching strategies, learning difficulties, and evaluation guidelines. Sample evaluation forms, teaching guidelines, and curriculum schema are included.
On-line Resources for Clinical Teachers	
Columbia University, School of Nursing, Preceptor Handbook. *http://www.nursing.hs.columbia.edu*	Contains general information for preceptors. Geared toward undergraduate nursing education with short, concise sections. (14 pages)
MAHEC Office of Regional Primary Care Education: Setting Expectations. *http://www.oucom.ohiou.edu/fd/monographs/setting.htm*	Geared toward clinical education of primary care medical care practitioners. Covers orientation, setting objectives, expectations for learners, skills of effective precepting, bedside teaching, giving feedback and evaluation, and dealing with difficult learners. Emphasizes time management and efficiency in clinical teaching. Describes the One Minute Preceptor technique. (55 pages)
Texas Tech University: Becoming An Effective Preceptor. *http://ismo.ama.ttuhsc.ed/ContinuingEd/EffectPreceptor.htm*	Developed for pharmacist preceptors. General teaching/learning concepts and skills with preceptor self-assessment exercises. (36 pages)
The University of Kansas, School of Medicine, Strategies in Clinical Teaching. *http://wichita.kumc.edu*	An extensive site developed for preceptors and faculty at the University of Kansas School of Medicine. Emphasizes practical clinical teaching strategies. Although it is aimed at family practice physician preceptors, much of the information applies to other health science preceptors. Features case studies of difficult teaching situations and solutions to common precepting problems. Each section has post-test questions. (over 30 pages with additional links)
University of Toronto School of Nursing: ACNP Preceptors. *http://www.nursing.utoronto.ca/preceptors/default.phtml*	A concise guide for acute care nurse practitioner preceptors. Discusses preceptor and learner roles, teaching strategies and student learning plans. Features forms specific to the University of Toronto programs. (7 pages with links)
University of Utah College of Nursing: Becoming a Great Preceptor. *http://www.nurs.utah.edu/np/preceptor.htm*	A short document which discusses ground rules, expectations and tips on how to become an efficient, successful preceptor of nurse practitioner students. Contains a short bibliography. (4 pages)
University of Washington, Department of Family Medicine: Clinical Teaching Handbook. *http://www.washington.edu*	Developed for community preceptors of family medicine. While some information is specific to precepting medical students, other generally relevant sections discuss orienting students to the practice, establishing expectations, giving feedback and evaluation, developing clinical teaching expertise and honoring diversity. (20 pages with 15 linked appendices)