Fieldwork Education: Shaping a Foundation for Clinical Reasoning

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The need to teach fieldwork students to critically examine practice has been a recurrent theme in recent occupational therapy literature; however, students need to learn routines and standard clinical skills before they can reflect on their practice. This article proposes a variety of strategies to teach technical skills while simultaneously providing a foundation for clinical reasoning.

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The value of fieldwork education in our profession has never been questioned (Presseller, 1983). Historically, fieldwork education has represented a commitment to the philosophical notion that education for professionals is both theoretical and practical (Nystrom, 1986). The justification for practical fieldwork education is rooted in the work of the philosopher John Dewey (1904), who claimed the actions professionals take in the real world depend on a unique mental analysis and interpretation of each new situation encountered. This understanding of professional practice provides the rationale for placing the novice in the situation of practice, so that the novice may comprehend the unique mental analysis of the seasoned professional. Dewey outlined two methods for the practice phase of professional education: (a) the apprenticeship method, which emphasizes the development of skills, and (b) the laboratory method, which emphasizes the development of reflective intelligence or the complex reasoning process that underlies our practice. Dewey said that the novice cannot attend to both concrete skills and abstract analyses, but will focus on one or the other in the practice situation. If the two methods of designing the practice phase of professional education, each with a different purpose, have value, then we are faced with the challenge of designing our fieldwork programs to teach technical skills and simultaneously provide a foundation for clinical reasoning.

Technique Versus Critical Analysis

The Guide to Fieldwork Education (AOTA, 1985) states, "The purpose of fieldwork is to provide occupational therapy students with the opportunity to integrate academic knowledge with application skills at progressively higher levels of performance and responsibility" (p. 1). Furthermore, "the unique contributions of the fieldwork experience include the opportunity to test, first-hand, the theories and facts learned in academic study and to refine skills through client interaction" (p. 1). In other words, Level II fieldwork programs should help students develop clinical techniques and analyze or reflect on their practice.

Research has illustrated that students value clinical techniques and applications (Barris & Kielhofner, 1985). Although fieldwork and academic educators may not want to spend all of their time teaching specific techniques, this is what entry level baccalaureate students perceive themselves as needing. Developmental theorists tell us that students need to learn routines and standards before they develop creative alternatives (Loganbill, Hardy, & Delworth, 1982; Perry, 1979). For example, students need to learn how to assess range of motion in a standardized way before
they can elaborate on that foundation and assess range from a functional perspective. Experience also tells us that students are searching for the "right way" to think and perform and that their tolerance for ambiguity is relatively low. Hence, we are caught between two fundamentally different agendas for fieldwork students: (a) an initial focus on technical skills and students’ need to learn the routine application of treatment modalities and (b) the development of effective clinical reasoning. Meeting both of these agendas is a tremendous challenge. This paper proposes strategies that will help students first to develop technical skills and then to move to a more analytical approach to practice. These strategies serve as a foundation for shaping clinical reasoning in fieldwork students.

Strategies for Meeting the Challenge

A Reflective Stance Toward Practice

A reflective stance toward practice was advanced by Rogers (1983) and supported by the Entry-Level Study Committee report (AOTA, 1987), which repeatedly emphasized the need for critical thinkers. Thinking like professionals will help us become recognized in the health care system and in our larger society (Parham, 1987). Schon (1987) argued that skillful practice often depends less on factual knowledge or rigid decision-making models than on the capacity to reflect before taking actions in cases where established theories do not apply. However, most professional programs, including occupational therapy, teach students only standard theories and how to apply them to straightforward cases. Our schools fail to equip future professionals with the skills they need to deal with the difficult problems confronted in practice. When theories are applied in a standardized and mechanistic manner, we run the risk of missing our patients' views of their functional problems. Parham (1987) shared various examples in which the patient and the therapist had different constructions of the situations and focus of therapy because the therapist routinely selected standard technical solutions, whereas the patient had concerns that were not addressed by routine solutions. Parham illustrated this problem in the story of a talented and intelligent woman who had cerebral palsy and was asked to put beads in a jar during her occupational therapy (p. 556). Schon suggested that in order to move professionals beyond techniques, professional education should be centered on enhancing practitioners’ ability to reflect on their practice. We must creatively design our fieldwork programs to move students beyond standard technical solutions and acquaint them with the complexities of clinical reasoning.

Over the years of working with occupational therapy students, I have observed many fieldwork educators struggling with the expectation that in a mere 3 months we could actually teach clinical reasoning. A recent fieldwork survey (Cohn & Frum, 1988) provided evidence that students are not prepared for the thinking challenges inherent in clinical practice and that fieldwork educators are searching for support in their efforts to help students develop clinical reasoning. When fieldwork educators were asked to identify their needs for continuing education, the top priorities were “bridging the gap between classroom and clinic” and “linking theory to practice.” “Students lacking integration of knowledge and skills” was identified as one of the three major problems currently facing fieldwork educators (Cohn & Frum, 1988, p. 326). Furthermore, the new AOTA Fieldwork Evaluation requires us to provide feedback on students' performance in the judgment domain. With the advent of the new evaluation and the addition of the judgment section, I fear that clinical reasoning has become yet another “skill” to be taught. Clinical reasoning has been interpreted as having a reason for connecting a particular treatment decision to a particular frame of reference. Although theory helps us to make this connection, it is insufficient, by itself, to address the problems that occupational therapists encounter in practice. There is more to clinical reasoning than translating academic theory into practice. Clinical reasoning is based on our knowledge of procedures, interactions with patients, and interpretation and analysis of the evolving situation. It is a complex process dependent upon years of experience. The clinician's ability to create an original response to the patient's unique condition moves beyond the knowledge base (Mattingly, 1987). It may be unrealistic to expect students to emerge from a 3-month fieldwork experience with clinical reasoning firmly established; more realistically, we can expect that the fieldwork experience will serve as a foundation or preparation for clinical reasoning.

Consistent Patient Population

To develop technical skills and confront the complexities inherent in carrying out the standard treatment plan, students must repeat interactions with the same patients over an extended period of time so that patterns can be discerned. Students must work with a variety of patients with a similar diagnosis so they can learn when routine treatment approaches are appropriate and when they are not. When clinicians confront obstacles to their initial formulations of patients’ treatment needs, they must reformulate their plans and reason in a new way. Thus, problems in practice facilitate the clinical reasoning process. A reasoning process that moves from the routine to the nonroutine is based on the need to modify the treatment program.
Students must establish routines to reassure their technical skills before they can begin to reflect on their practice.

Currently, some Level II fieldwork programs are split into two 6-week segments with the intention of providing a broad exposure to a variety of diagnoses. Perhaps a 12-week program with a consistent patient population would enhance students' opportunities to reflect on their practice and evaluate the effectiveness of their treatment. One of the major challenges of occupational therapy is finding the delicate balance between support and challenge for patients. Clinical reasoning includes thinking about how to structure activities so that we can meet the patients' needs without pushing them too far. Without repeated exposure to the same patients, students will not have the opportunity to search for this delicate balance between support and challenge or to confront situations where the routine does not fit. If the fieldwork center is unable to provide a 12-week affiliation with a consistent patient population, perhaps students could, at least, treat two patients with a similar diagnosis so that they can compare and contrast patients, thereby moving beyond the technical skill level to a more analytical and adaptive response to individual patients' needs and goals.

Questions

As students develop technique with a consistent patient population, educators may begin to relate theory and technique by asking probing questions at certain points in the clinical reasoning process. When routine approaches do not meet patients' needs and students are at a loss for ideas, educators can ask them to develop a range of strategies and to provide their rationale for choosing them. The first question, “What will you do?” relates to technique, and the second question, “Why are you doing it?” relates to theory. Questions such as “What do you see as this patient's possibilities?” focus students' attention on the patient. Questions may elicit a factual or an interpretive response: for example, “What kinds of splints are used for ulnar deviation?” requires a straightforward answer, and “What kind of splint do you recommend for this particular patient?” requires an arguable one. Factual questions have an important function, because they clarify what the starting point of any interpretation must be—facts. Interpretive questions require students to go beyond the facts to relate, criticize, clarify, justify, and apply the ideas being discussed. They require the evaluation and synthesis necessary for effective clinical reasoning. The fieldwork educator's task is to ask questions related to both ends of the continuum between technique and critical analysis.

Observing the Patient-Therapist Dyad

Traditionally, students shadow or observe therapists treating patients during the first week of fieldwork. In some settings, this observation period is open ended, and fieldwork educators ask students what they have observed. In other settings, the observations are structured, and students are directed to observe specific things such as the treatment activities or patients' performance. Rarely are students invited to focus on the patient-therapist dyad. Since clinical reasoning emerges in the process of interaction between therapist and patient, we should encourage students to question the reasoning embedded in the therapist's actions in the very first weeks. One of the most difficult reasoning tasks a therapist faces is designing and revising his or her approach to a particular patient. Therefore, it would be helpful to ask students to construct a hypothetical treatment story of the patient on the basis of the referral information. This story would include students' expectations of patients' clinical pictures and functional prognoses. Once students have observed patients, they can reconstruct their hypothetical treatment story to include patients' constructions of their problems and student's own observations of the clinical pictures. This approach to the initial observation of the patient may indeed teach students the technical skill of observation and help them build the foundation for testing their assumptions. From an educational perspective, the fieldwork educator can also use this experience to begin to assess students' knowledge. Do students know enough about the condition diagnosed to formulate realistic assumptions? If the diagnosis is a right cerebrovascular accident, do students mention muscle tone in their initial story construction? Why not encourage students to begin to revise their initial stories with feedback from patients? When students and patients create a shared story, students learn to collaborate with patients and are made aware early on that their interpretation of patients' needs must be constantly modified.

Role Modeling

Christie, Joyce, and Moeller (1985), in their study of fieldwork supervision, found that competent clinicians served as good role models. The role model, or mentor, is widely recognized as playing a critical role in shaping, teaching, coaching, and assisting future practitioners. As role models, fieldwork educators teach technical skills and a respect for and application of theory. We must recognize that the valuation of theory is a developmental process. Initially we need to model technical application. However, if our intention is to encourage students to value the critical examination of our practice, then we must simulta-
neously model reflection on our own practice. This we do by involving our students in the questioning of the effectiveness of our practice.

**Telling Stories**

Experience, captured in the form of stories remembered, influences therapists’ treatment decisions. These stories provide a repertoire of expectations that therapists can apply to new situations. Experienced therapists have a library full of stories—students do not. From an educational perspective, the role of fieldwork educators is that of a continuous storyteller. Through stories, fieldwork educators begin to share their reasoning process and the belief system that guides their practice. Students cannot learn clinical reasoning by watching our actions, because the thought behind the action is not self-evident. We must delineate why we responded to a patient in a particular way and share our continuous revision of our approach to a particular patient. We design our treatment plans with the assumption that the plan will be constantly modified. Students are often unaware of this assumption. Students frequently design treatment plans and wait for the supervisor to suggest reevaluation of the treatment. Fieldwork educators must make their initial reasoning process explicit and then share their reformulations as therapy progresses.

**Chunking Information**

There is evidence that expert and novice problem solvers differ in their use of problem-solving strategies (Dreyfuss & Dreyfuss, 1986). One difference is the use of a cognitive strategy known as chunking, which refers to a way of organizing and categorizing information into units. Experts chunk, or cluster, data into larger information units than do novices. In clinical practice, experienced therapists create memory structures that reflect their clinical priorities. Therapists choose and name the things they notice. Depending on our theoretical frames of reference, clinical experiences, and clinical roles, we organize information differently. In the clinical situation, we may choose to organize patient data either around the patient’s functional strengths or around the patient’s symptoms. In this example, the clinical priority, function, serves as the framework for organizing patient data. Both of these frameworks are examples of categorizing data, but the functional status framework offers a broader perspective. For example, we can organize our observations of a child with cerebral palsy around the child’s spastic muscle tone, primitive postural reflexes, and poorly controlled purposeful movement, or we can organize observations of the same child around the child’s ability to use reflex patterns to eat and dress. Thus, we see that the ways in which we choose to categorize information influences the clinical choices we make. By asking students to chunk their treatment sessions, we gain a greater understanding of how they organize their reasoning process. We can also share our perspectives and organizing frameworks to share our treatment priorities.

**Case Studies**

Many fieldwork education programs require students to complete a case study. How often do educators model this case study or its revision? We could model the value of reflecting on practice by presenting a case study early in the fieldwork experience. Students will then observe that we are willing to risk sharing our thought processes. Instead of thinking of case studies as a review of textbook descriptions of patients’ clinical conditions and listing long- and short-term goals, we need to present case studies in a process-oriented format. If we build the case presentation around the process of therapy, the constant revision of the treatment plan over time, the obstacles presented, or how patients and therapy changed, we are sharing our knowledge, experience, and thought processes. Moreover, we are modeling the critical professional ethos of reflection on practice.

**Videotapes**

A powerful tool for encouraging reflection on practice is the use of the video camera. Some students have reported that just knowing the camera is on forces them to think about their practice more carefully. Videotapes help students clarify their assumptions regarding their own behavior and the impact of their own behavior on patients. For example, one student reported that, while viewing a videotape following a particularly difficult group session, she realized that her body language, facial expressions, and irritated tone of voice contributed to the difficulty within the session. Before viewing the videotape, the student was able to articulate to the fieldwork educator that she was having a hard time. The videotape helped to clarify the contributing factors.

Reviewing videotapes of treatment sessions also helps students and fieldwork educators identify the various critical moments in the treatment session. Throughout the treatment sessions, experienced therapists make judgments or choices regarding which action to take at a given moment. This action is in response to the patient’s performance. If experienced therapists shared videotapes of their own treatment sessions, they would be able to stop the action, discuss the reasoning behind their actions, and teach
theoretical concepts. Together, students and fieldwork educators could evaluate the efficacy of the therapy session. Perhaps alternative strategies based on different frames of reference could be introduced.

Conclusion

No one can reason for or make judgments for another person, but we can provide models of our reasoning. Some of the strategies for teaching clinical techniques and shaping clinical reasoning are working with a consistent patient population to discern patterns, focusing on the patient–therapist interaction to observe how experienced clinicians solve problems, and using videotapes, case studies, and questions to help students internalize the value of clinical reasoning. The example we provide of reflecting on our own practice can model the clinical reasoning foundation that students will continue to build through reflecting on their own practice.

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References


