

# Evidence-Based Practice in Physical Therapy

*Nadine decided to write her paper on the effectiveness of magnet therapy, an alternative technique for pain relief that is gaining considerable exposure in the medical literature. She collected articles and thought, “So many people believe that it works, yet there is insufficient evidence to show that it does.”*

## Critical Thinking and Clinical Problem Solving

Physical therapists engage in critical thinking processes. *Critical thinking* involves the discipline, ability, and willingness to assess evidence and claims; to seek contradictory, as well as confirmatory information; and to make objective judgments on the basis of well-supported reasons as a guide to belief and action.<sup>1</sup>

Critical thinking is often used by individuals and organizations when trying to solve complex problems. Critical thinking requires a clear identification of questions and problems and is a process of collecting relevant information and thoughtful interpretation of that information to reach conclusions and solutions. When engaged in critical thinking, one identifies assumptions, tests ideas against established criteria and standards (such as policies, clinical guidelines, or established protocols), and recognizes the implications and consequences of decisions. Finally, the process requires clear communication with other team members.<sup>2</sup>

Physical therapist assistants work closely with physical therapists in *clinical problem solving* in the work environment, within the context of the direction and supervision provided by the physical therapist while carrying out the established plan of care. Problem-solving activities involve recognition and identification of the problem, description of the problem, identification of possible solutions, and the consequences of those solutions. The physical therapist

assistant seeks assistance and consultation as needed prior to implementation of a solution.<sup>3</sup>

Both critical thinking and clinical problem solving require an active awareness of the thinking process. *Metacognition* is the process of monitoring and considering one's thoughts while in the thinking process. Awareness of choices and active involvement in determining the best way to make choices are key parts of the metacognitive process.<sup>1</sup>

Critical thinking requires the thinker to use a process characterized by clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness. In contrast, clinical problem solving exists within a carefully defined context and within the limits of role and environmental constraints.

Remember that physical therapist assistants implement clinical problem solving and make clinical decisions *within the physical therapist's (PT) established plan of care and within the context of the direction and supervision provided by the physical therapist*.

Read the competency of clinical problem solving in Table 15-1, defined in the *Physical Therapist Assistant Clinical Performance Instrument* and identify the various elements of the process. You may recall that this instrument was first discussed in Chapter 6.

## Evidence-Based Practice

*Evidence* is information that tends to support something or show that something is true, such as clinical research or objective changes in function. Evidence-based practice involves the use of current best evidence in making decisions about the care of individual patients.<sup>5</sup>

Evidence-based practice deemphasizes intuition, unsystematic observations of clinical experience, and the opinions of “authorities.”<sup>4</sup> Evidence-based practice requires the critical analysis of evidence.

Physical therapists who use evidence-based practice blend their individual clinical expertise and judgment with