

1998 Eleanor Clarke Slagle Lecture

Uniting Practice and Theory in an Occupational Framework

Anne G. Fisher, ScD, OTR

The roots of this lecture began years ago in the late 1960s, when I was an occupational therapy student. Occupational therapy was in the midst of what Kielhofner (1997) has termed the *mechanistic paradigm*. My physical dysfunction theory courses had a heavy focus on exercise and the neurophysiologic approaches of the Bobaths (Semans, 1967), Brunnstrom (1970), and especially Margaret Rood (as interpreted by Stockmeyer, 1967). While on my affiliations, I was guided by some of my supervisors to use weight lifting to strengthen the wrist extensors of clients with spinal cord injury. During my psychiatric affiliation, I was encouraged to give clients with unconscious hostility opportunities to act out their emotions through metal hammering. All of these clients did these activities whether they wanted to or not.

But there was another side to my early experiences. I remember vividly working with a young man who had quadriplegia as a result of a spinal cord injury. He was fascinated with electronics, and he wanted to explore the possibilities of being able to build electronic devices. I went to the local electronics store and bought a do-it-yourself radio kit filled with resistors, capacitors, circuit boards, and tiny nuts and bolts. I also bought solder and a soldering iron. Together, we worked on developing strategies he could use to manage the tools and materials. He had no active movement in his fingers, but because he wore wrist-driven flexor hinge splints, he was able to hold on to many of the objects. When he had difficulty, we worked together to create alternative strategies.

He built the radio, not I. And in the end, he had a radio he could listen to; he had the satisfaction that comes from accomplishment; and he had learned that he could develop for himself compensatory strategies when confronted with challenging circumstances. But that is not all he gained. As an indirect consequence of his participation in meaningful and purposeful activity, the muscles in his upper limbs became stronger, and his fine motor coordination improved. Although I regret that I do not remember this young man's name, I am grateful that he was included among the clients I worked with who have taught me the value of occupation as a therapeutic agent.

Originally published 1998 in *American Journal of Occupational Therapy*, 52, 509–521.
Please note that there was no Eleanor Clarke Slagle Lecture in 1997.

A few years later, I began working on a project with Lyla Spelbring. I remember Spelbring telling me about her philosophy of when occupational therapy practitioners should be involved with clients during the continuum of care that begins in the acute care phase and extends through discharge and into the community. Spelbring proposed that occupational therapy practitioners have an initial role in the early part of the acute care phase, addressing issues of self-care and the provision of assistive devices. Then, she said, we should let physical therapy take over to develop the clients' physical capacity. Only when the clients are strong enough to engage in occupation should we reenter and work with them during the latter part of their rehabilitation stays and as they transition back into the community.

Spelbring seemed to be saying that, throughout our involvement, our focus should be on enhancing occupational performance and not the remediation of underlying impairments. Her ideas felt radical, and with my own interest in neurophysiological techniques designed to remediate neuromotor impairments, I was not at all ready to hear the intent of her message. But still, I remember it, and now I realize she may have been right.

Soon thereafter, I went to graduate school. My master's thesis had to do with the effects of the inverted head position on alpha and gamma motor neuron activity in the upper extremity. Obviously, the mechanistic paradigm remained alive and well.

Catherine Trombly was my major advisor. Under her mentorship, I learned about, and came to value, the need for research that supports (and fails to support) the theories and intervention methods we use in occupational therapy. I also observed in her someone who has always valued the use of purposeful activity as a therapeutic mechanism.

Still later, after completing my doctorate, I began teaching with Gary Kielhofner. We worked together on a number of projects. With some resistance, I learned about, and ultimately became immersed in, the Model of Human Occupation. At the time, I was editing a textbook on sensory integration (Fisher, Murray, & Bundy, 1991). Kielhofner drew a figure of how he visualized the interrelationship between sensory integration and the Model of Human Occupation (see Figure 45.1). The figure was like an hourglass constructed of two overlapping triangles. The top triangle was inverted to show that the Model of Human Occupation stressed occupation and barely acknowledged the role of the brain in occupational behavior (Kielhofner, 1985). The lower triangle was upright to show that sensory integration theory stressed brain functioning, with minimal discussion of the occupational nature of humans (Ayres, 1972). About this figure, Kielhofner said that if we can bridge the gap and fill in the void so as to construct a rectangle, we will have a richer view of occupational therapy.

I believed strongly in the value of occupation as a therapeutic agent. I had not forgotten the man with the spinal cord injury who wanted to build a radio. And I had not forgotten Spelbring's view that we should return physical restoration to the physical therapists. No doubt, she would also have us return remediation of psychiatric impairments to the psychiatrists, the psychologists, and the social workers. Trombly helped me to recognize the importance of implementing research to validate occupational therapy theory and practice. But, even with all that, I still lacked a vocabulary to explain to others what I did, how what I did was unique, and how my role could be clearly differentiated from that of the physical therapist, the nurse, the social worker, and so on. My work with Kielhofner

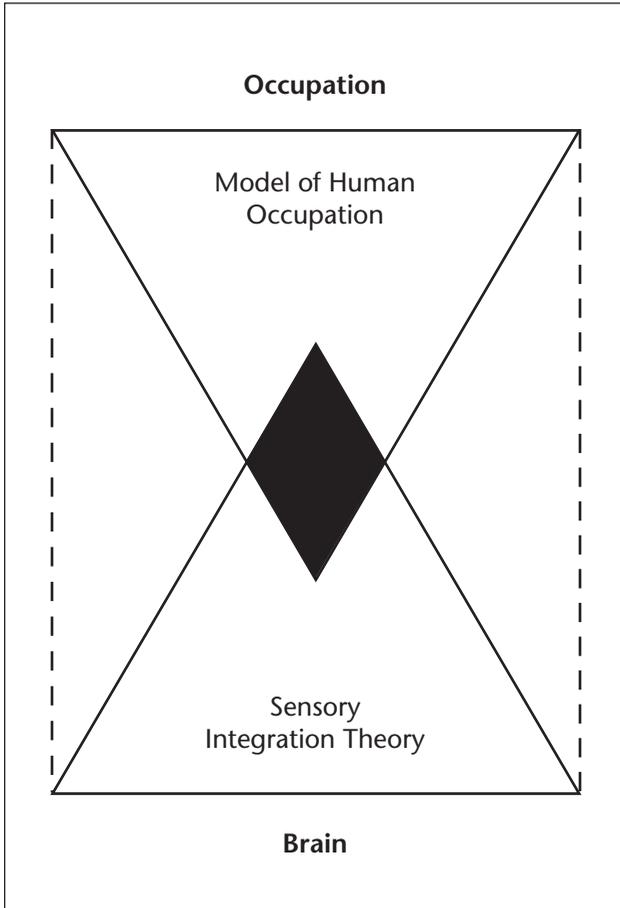


Figure 45.1. Schematic relationship between the Model of Human Occupation and sensory integration theory.

time, and roles of their lives (Fisher, 1994). When we speak of the action of seizing, taking possession of, or occupying space, we can think of the actions our clients must perform to occupy their homes, their schools, their workplaces, and the places where they engage in recreation or leisure. Similarly, when we speak of the action of seizing, taking possession of, or occupying time—and being engaged in something—we can think that as our clients engage in task performances, they engage in a course of action that unfolds over time. We can also think about our client's need to occupy time, not just in the sense of "being busy," but also in a sense that connotes the action of doing a mental, physical, or social task that is meaningful to the person. Lastly, when we speak of the action of seizing, taking possession of, or occupying roles, we can think about the performances our clients must enact in order to assume their life roles.

Occupation is a wonderful word. Think of it—a noun of action—it is about "doing!" It conveys the powerful essence of our profession—enabling people to perform the actions they need and want to perform so that they can engage in and "do" the familiar, ordinary, goal-

on the Model of Human Occupation paved the way for me to finally conceptualize the unique contribution of occupational therapy within the health care arena and to articulate the important role of occupation as a therapeutic agent (Fisher, 1994, 1995, 1997d).

Occupation: A Noun of Action

I came to realize the incredible power of the term *occupation*. The term occupation is a noun of action. Occupation is defined as *the* action of seizing, taking possession of, or occupying space or time. It is also defined as *the* holding of an office or position, such as one's role. Finally, in the sense of action, occupation refers to *the* being engaged in something (*The Oxford English Dictionary*, 1989).

As I have argued elsewhere, occupational therapy practitioners enable their clients to seize, take possession of, or occupy the spaces,

directed activities of every day in a manner that brings meaning and personal satisfaction (American Occupational Therapy Association [AOTA], 1993, 1995; Clark et al., 1991; Evans, 1987; Kielhofner, 1997; Rudman, Cook, & Polatajko, 1997).

Occupation: Purposeful and Meaningful Activity

I believe that we must view occupation as not just any activity, not even just any purposeful activity, but as activity that is both meaningful and purposeful to the person who engages in it. As I use the term here, *meaning* pertains to the personal significance of the activity to the client (see Figure 45.2). Meaningfulness is important as it provides a source of motivation for performance (Trombly, 1995a). As I use the term *purpose*, it pertains to the client’s personal aim, reason for doing, or intended goal. Purposefulness is important as it helps organize the client’s performance (Trombly, 1995a).

I believe that purpose can be derived from the meaning one makes of a situation (Nelson, 1988), but I also believe that meaning can be derived from one’s purpose for engaging in the activity (Fisher, 1994). Meaning and purpose, when considered in relation to occupation, are inextricably interrelated.

Consider the following example. Ken is a minister. Each Sunday, he puts on slacks and dress shoes instead of his usual jeans and tennis shoes. Over that he dons his vestments and a cross. He does this for “appearance”—to be socially appropriate and to wear the “correct” attire. But he also wears them to make a statement about who he is and what he believes. For Ken, they are tied to tradition, and they are symbolic of his Christian faith. Ken’s purpose and Ken’s meanings are virtually inseparable.

But why does Ken wear the particular cross he does? Ken wears the cross he does because of the symbolism embedded within its design. The design is that of a desert rose. Imagine a rose blooming in the desert—a rose growing out of nothing. For Ken, this is a symbol of the Resurrection—in the darkest part of our lives we can bloom; we can heal and grow. This is a belief tied to his Christian faith, but the significance of Ken’s wearing of this cross is also very personal.

Ken was very ill. He had to give up his position as senior pastor and discontinue all physical activity. He went on disability. He had excruciating pain and was heavily medicated. He says, “I was like a zombie.” He could not talk, and he could only eat through a straw. He became even more ill and had to be hospitalized. There was concern that Ken might not live. But then he was given a new medication. He went into remission. With guidance from

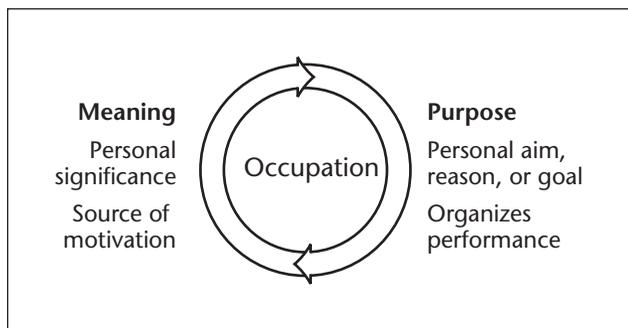


Figure 45.2. Interrelationship between meaning and purpose when applied to occupation.

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others, he developed strategies to deal with his residual disability. Six months ago, Ken resumed his ministry. Last week he went skiing. He has plans to begin rollerblading once again this spring.

Ken wears the cross he does as a symbol of his own life transition:

I went from being a responsible professional, working 70 hours a week, to basically nothing. I went from 7 days a week being busy to having no purpose or meaning in life. I went from that to getting it all back.

The point is: Purposefulness is important, but it is not enough. Occupation is both purposeful and meaningful. If we can identify activities that have potential to be meaningful to the person, we can use them to increase motivation and a sense of purpose. In this process, we cannot confuse our purposes or meanings with those of our clients.

Defining Occupation Within a Practice Context

As I have traveled internationally, I have continued to be confronted with an apparent paradox—occupational therapy practitioners who know, implicitly, that they possess unique and important expertise but who have difficulty, just as I have had, articulating their uniqueness. Moreover, they often use evaluation and intervention methods that are so similar to those of their colleagues in physical therapy, neuropsychology, social work, and nursing that any distinctions between occupational therapy and these professions become blurred and even abolished.

Since the beginning of our profession, occupation has been viewed as both a means and an end (Clark, 1917; Dunton, 1928; Gritzer & Arluke, 1985; “Occupational Therapy in the General Hospital,” 1917; Quiroga, 1995; Upham, 1917). Our uniqueness has been in the use of occupation as a curative or restorative force as well as in the view that enhanced occupational performance is the desired goal of therapy. These beliefs continue to be reflected in current official statements from within our profession. According to the AOTA (1997), occupational therapy practitioners use purposeful and meaningful activities in two ways: to restore underlying capacities and to develop meaningful occupations.

As I have talked with occupational therapy practitioners both here in North America and abroad, I have found that we indeed share an understanding of occupation, but that understanding often seems to be detached from what I observe in their daily practice. Our unique focus on occupation is not always obvious in practice.

Common Intervention Methods

To clarify what I mean, I will describe the intervention methods occupational therapy practitioners currently use in their everyday practice. The focal point here will be the characteristics of the activities in which clients are engaged. As I introduce the general activity types, the astute reader will no doubt think of activities that do not fall neatly within one of these groups. It may help, therefore, to begin by thinking of four continua (see Figure 45.3).

The first continuum indicates that an activity may be more contrived or offered as exercise, or the activity may be more naturalistic and offered as occupation. The second and

third continua indicate that the purpose and the meaning of the activity, respectively, may be generated more by the practitioner or generated more from within the client. Finally, the focus of the intervention may be more on remediation of impairments or more on enhanced occupational performance. These four continua can be used to evaluate the characteristics of any activity we might use as intervention. As I proceed to describe each of the major activity groups, certain key characteristics of the activities will move from left to right along one or more of the continua.

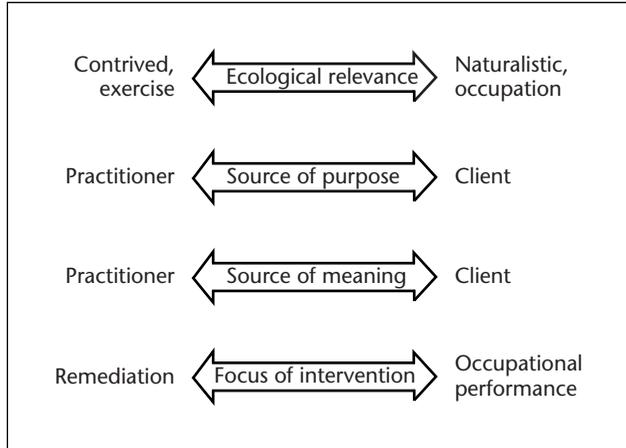


Figure 45.3. Four continua that can be used to evaluate the characteristics of any activity used as occupational therapy intervention.

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Exercise. The first group of activities I have termed *exercise*. The most salient feature of this type of activity is that the client is engaged in rote exercise or practice. The activity may have a purpose or goal, but more often than not, the purpose originated with the practitioner and not the client. In all probability, therefore, the exercise has little or no meaning to the client. Finally, the focus of the exercise is on the remediation of impairments. Examples of exercise include having the client draw a series of straight vertical lines on lined paper to develop eye-hand coordination, stretch Thera-Band¹ or lift weights to develop strength, or stack cones to develop reach.

Contrived occupation. The second group of activities I have termed *contrived occupation*. Contrived occupation includes exercise with “added purpose” and occupation with a “contrived” component. Again, there may be a purpose or a goal, but if there is, the purpose most likely originated with the practitioner and not the client. Because the purpose originates with the practitioner, the meaningfulness of the activity to the client remains minimal. Finally, as with exercise, the focus is on the remediation of impairments.

Exercise with added purpose is exercise embedded in an activity in which both task objects and any potential meanings or purposes are contrived. One example would be to have a woman practice picking up golf balls from the floor with a reacher and placing them in a nearby bucket. Another example would be to have a man place cones on a shelf, telling him that he should pretend that they are glasses and that he is putting the dishes away. The key element is that golf balls and cones have little relevance to the actual tasks that are being simulated.

¹ Thera-Band Products, The Hygenic Corporation, 1245 Home Avenue, Akron, OH 44310.

In *occupation with a contrived component*, the objects are real and not simulated. Having a boy pound nails into a board, encouraging him to pretend that he is going to build a birdhouse, is one example. The objects are real and relevant to the *practitioner-specified* purpose, but there is to be no real birdhouse. Asking a girl to throw bean bags at a target without her engagement in a game is another example. In both of these examples, the purpose and the meaning have been contrived; they are more those of the practitioner than they are those of the children.

Therapeutic occupation. The third group of activities I have termed *therapeutic occupation*. A critical characteristic of therapeutic occupation is that the client actively participates in occupation. They are activities the *client identifies* as purposeful and meaningful. And, to the greatest extent possible, the occupational performance is naturalistic and contextual. The client performs the activities using real objects in natural environments. The focus of therapeutic occupation remains on the remediation of impairments.

An example of therapeutic occupation would be to use *graded occupation* to treat impairments of balance or reach. For example, Lillian loves to read. She has expressed concern that she is experiencing difficulty maintaining her balance while reaching for objects, including books, from shelves. Together, we decide to go to her library and work on her problem areas. By progressively grading the task in terms of the challenges to her balance or the extent of reach required, engagement in an activity that has purpose and meaning to the client can be used to remediate her underlying impairments that are limiting her occupational performance. As her underlying abilities improve, she can begin to retrieve from or return to higher shelves books that are heavier.

Another example of therapeutic occupation involves *direct intervention* of impairments in the context of occupation. Here, the occupational therapy practitioner might work on social abilities while a group of adolescents make a cake for one of their mothers. Or the practitioner might attempt to remediate attentional deficits as the person engages in a favored card game.

Adaptive or compensatory occupation. The final group of activities I have termed *adaptive or compensatory occupation*. As with therapeutic occupation, a critical characteristic is the client's active participation in occupations that are chosen by the client. Again, the activities are purposeful and meaningful to the client, and the occupational performance is naturalistic and contextual. In fact, the major distinction between adaptive occupation and therapeutic occupation is that adaptive occupation is focused on improved occupational performance and not on the remediation of impairments. When we use adaptive occupation, we provide assistive devices, teach alternative or compensatory strategies, or modify physical or social environments. No attempt is made to remediate the underlying impairments.

An example of adaptive occupation might involve engaging Roy, who has lung cancer and resultant low endurance, in a desired grocery shopping task. While he is shopping for his needed groceries, the occupational therapy practitioner would use education to teach him alternative ways to manage his shopping. One strategy might be to teach him to put only a limited number of items into a bag. Another might be to teach him to use a cart to

transport his groceries. The key characteristic of adaptive occupation is the use of adaptation to alter or change the activity so that the client can perform it successfully (Mosey, 1986). The goal is not to improve Roy's endurance.

Legitimate Activities for Occupational Therapy

What then are the legitimate activities for occupational therapy? Kielhofner (1997) has argued that the emerging paradigm of occupational therapy requires that we recognize occupation as the level of intervention. I believe that this should be true whether the intervention involves engaging the person in therapeutic occupation for purposes of remediation or engaging the person in adaptive occupation to directly enhance occupational performance. Certainly, if we tie current practice to our philosophical base, then the clear *emphasis* must be therapeutic occupation and adaptive occupation. At the same time, we must heed Spelbring's advice and return exercise and most of our use of contrived occupation to their legitimate "owners."²

We do not like to think that what we are doing is not legitimate occupational therapy. But, whether we want to admit it to ourselves or not, there are still many occupational therapy practitioners here in the United States and internationally who continue to *emphasize* the use of exercise or contrived occupation to remediate impairments, justifying their programs to themselves and others by stating that their *ultimate* goal is improved occupational performance. We are challenged to ask ourselves, how are these programs any different from those of physical therapy, neuropsychology, and others?

Conceptualizing an Occupational Therapy Intervention Process Model

How can we make the philosophical foundations of our profession a reality of everyday practice? I believe that we do that by uniting practice and theory in an occupational framework. That is, we must conceptualize and implement practice in a manner that explicitly ties what we do to our unique focus on occupation as a therapeutic tool. If we are to remain a viable profession and avoid the risk of being viewed as redundant, we must continue the move away from the mechanistic paradigm and reconnect to our philosophical foundations.

In the remainder of this lecture, I will propose the Occupational Therapy Intervention Process Model as a structure for realizing this objective (see Figure 45.4). This model stresses the use of a top-down approach to evaluation. It also provides a framework to guide professional reasoning that leads to implementation of adaptive occupation for purposes of compensation as well as therapeutic occupation for purposes of remediation.

²I believe that there is some justification for the *occasional* use of contrived occupation, especially with clients who lack motivation or who are too fearful to engage in activities that we might believe are more relevant to their daily life needs. In this case, group, craft, or play and leisure activities may be used early in the intervention in an attempt to facilitate the client's active participation and to increase motivation. The client may initially "go through the motions" of implementing the task performance, but his or her sense of purpose and meaning in relation to the activity likely is minimal. The hope is that purpose and meaning will emerge. If, however, the use of such activities has no apparent therapeutic benefit, and the client remains unwilling to engage in occupation, then perhaps we should turn the intervention over to other professionals whose methods and focus may be more appropriate.

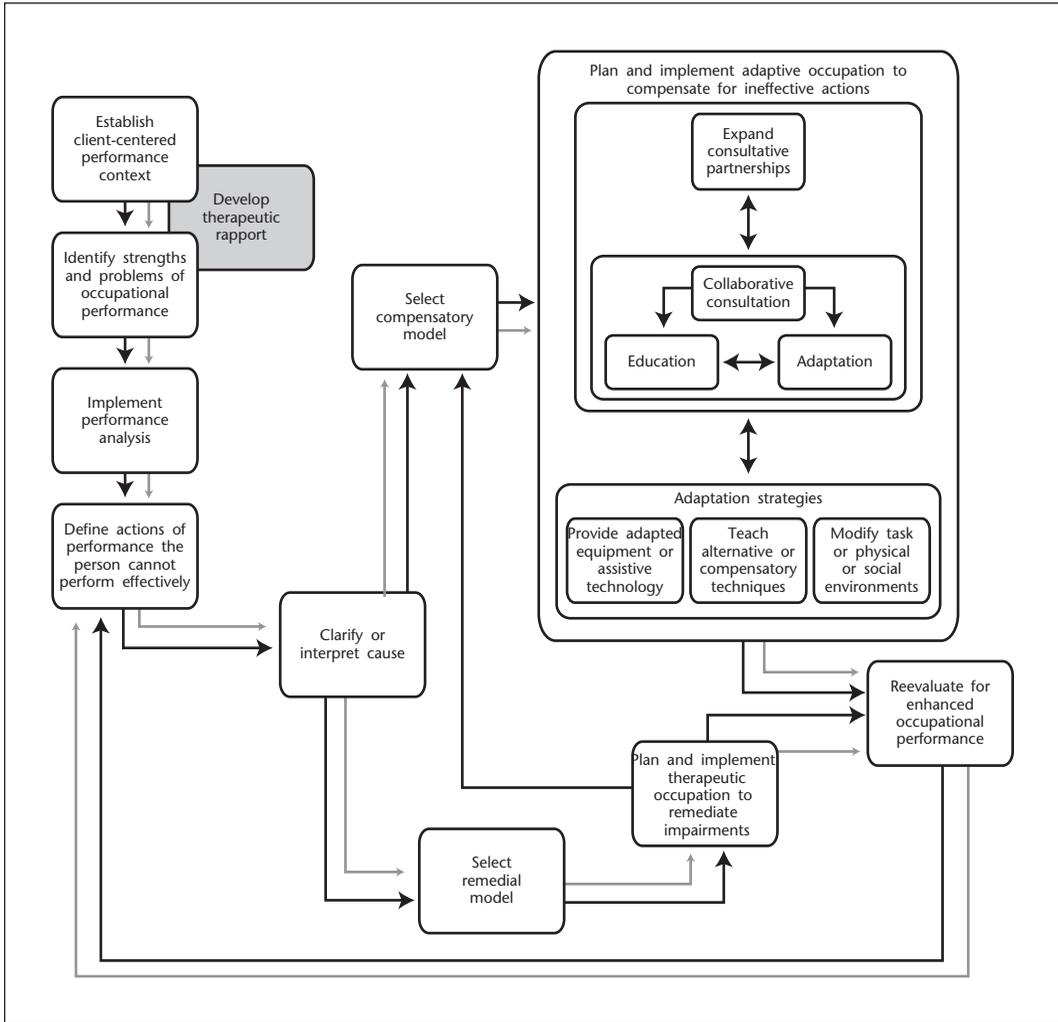


Figure 45.4. Schematic representation of the Occupational Therapy Intervention Process Model.

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Establish the Client-Centered Performance Context

The first step of the Occupational Therapy Intervention Process Model is to establish the client-centered performance context. The client-centered performance context provides the framework for understanding, evaluating, and interpreting the person’s occupational performance. Occupational performance unfolds as a transaction between the person and the environment as he or she enacts a task (see Figure 45.5). Therefore, the person’s motivational characteristics, roles, and capacities are just as critical as are the task and the features of the environment for providing the framework that is needed to understand why, and how, a person performs the tasks he or she does and why certain aspects of the task performance may result in the person experiencing difficulty or dissatisfaction. This view is in contrast to the

view that defines the context as being limited to the environment or all that is external to the person (Christiansen & Baum, 1997; Dunn, Brown, & McGuigan, 1994; Haugen & Mathiowetz, 1995).

Dimensions of the client-centered performance context. The following interrelated dimensions define the client-centered performance context:³

1. The *temporal dimension* places the client's occupational performance within context of his or her past; present; and possibilities, priorities, and hopes for the future.
2. The *environmental dimension* includes the persons who are present, the objects that are present, and the physical spaces where the task performances occur.
3. The *cultural dimension* pertains to the shared beliefs, values, and customs of one's cultural group that influence where one performs tasks, what tasks one performs, how one performs them, and what tools and materials are used.
4. The *societal (institutional) dimension* includes one's available community resources, relevant economic factors, and implicit or explicit rules and regulations, including medical precautions.
5. The *social dimension* includes one's connections and relationships with others as well as the extent of collaboration that occurs between the client and others during occupational performance.
6. The *role dimension* pertains to the relationship between one's roles and the related collection of task performances that must unfold in a logical, timely, and socially appropriate manner. We must understand the person's perceived roles and any incongruities between his or her role behavior and the role behavior that is expected by society or desired by the person.
7. The *motivational dimension* pertains to one's values, interests, and goals that give meaning to activity and provide a source of motivation.

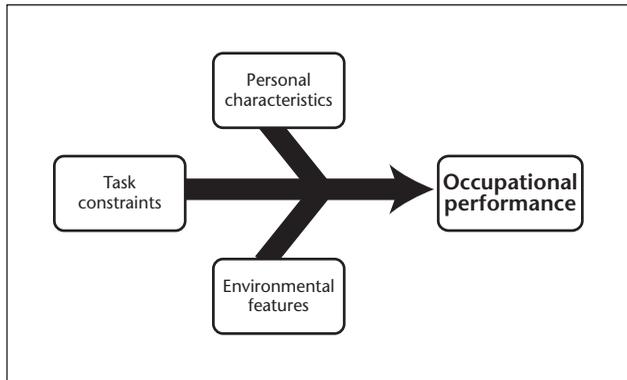


Figure 45.5. Schematic representation of occupational performance unfolding as a transaction between the person and the environment as he or she enacts a task.
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³The dimensions included within the client-centered performance context may be likened to what Christiansen and Baum (1997) termed *performance enablers*. In fact, their term, *performance enablers*, is preferred to the term *performance components* (AOTA, 1994b). The use of the term *performance components* tends to imply small (component) units of the enactment of a task performance rather than the intended underlying supporting framework. The small, goal-directed units of a task performance are *actions*, not the person's underlying capacities. For that reason, I have deliberately avoided referring to performance components during this lecture, substituting instead terms such as *capacities, abilities, limitations, and impairments*.

8. The *capacity dimension* pertains to the clients's diagnosed condition and the broad clinical picture of his or her neurologic, musculoskeletal, cognitive, and psychosocial capacities and impairments we gain through our initial observations and interview with the client. These are the *initial* impressions we have of a client that *begin* to inform us about the client's potentials for change, delimiters to progress, and precautions we might need to consider during intervention.
9. The *task dimension* includes both the task to be performed and the constraints that define that task. The task constraints are a set of culturally defined task characteristics that result in shared recognition that "this" person is performing "this" task (Fisher, 1997c). These culturally defined task characteristics specify the appropriate context, the tools and materials to be used, the norms or rules for the performance, and the necessary temporal order of the task actions. They are a component of what Nelson (1988) has called *occupational form*. When a person does not enact the specified occupational form, we recognize such deviations as errors. Such errors may reflect inefficiencies in organizing time or space, inappropriate or unsafe object use, inappropriate actions that are irrelevant to the specified form, unsafe actions that place the person at risk, and so on. The important point here is that within the context of occupational therapy, we recognize "problems of performance" through the recognition that some aspect of what we observe the client doing is "out of form."

Methods for establishing the client-centered performance context. Establishing the context begins with an initial referral and perhaps a chart review. Then we meet the client. Through interview, observation, and the use of life stories (Clark, 1993; Kielhofner, 1995; Spencer, Davidson, & White, 1996), we begin to construct the client-centered performance context. The use of structured interviews, such as the Occupational Performance History Interview (Kielhofner & Henry, 1988) or the Canadian Occupational Performance Measure (Law et al., 1994), provides a structure to gathering information and identifying the client's goals.

The meaningfulness and relevance of specific task performances to the client are of critical importance in the evaluation and intervention process. Learning about the tasks that are most important to the person, the meaning of those tasks, and the nature of the contexts within which those task performances are likely to be enacted requires taking the time and effort to establish the client-centered performance context. This step is critical, and it must occur, even under the pressures of cost containment, reduced duration of care, staff cuts, and increased accountability. In fact, there is some evidence that taking more time, initially, to establish the client-centered performance context will result in overall outcomes being enhanced and overall costs reduced (Bowen, 1996; Neistadt, 1995).

Consistent with a top-down approach, it is important to point out that we do not begin to formally assess the person's underlying capacities and abilities until later (Fisher & Short-DeGraff, 1993; Trombly, 1993). Rather, at this stage in the evaluation process, we consider only the person's diagnosed condition and what we learn through informal observation and interview.

For example, before I actually met Jim, I was aware that he had sustained a brain injury several years ago and that he was experiencing difficulty finding satisfying employment. This information led me to suspect that he might have either physical or cognitive limitations, but if he did, they were unlikely to change. My first contact with him was by telephone. During our conversation, I became aware that he has expressive aphasia but that he is able to communicate most of his ideas in a manner that I could understand.

Later, when I met Jim, I noticed that he does not use his right arm. He allows it to hang at this side. As Jim and I began to talk, I quickly learned that he is bilingual—he knows both American Sign Language and English. Jim cues himself visually, using sign language, when he has difficulty verbalizing what he wants to say. During our conversation, I sensed that Jim has good comprehension and no major memory deficits. He is outgoing and appears to have good social skills. Things he said also led me to infer that he likely has good self-awareness and problem-solving abilities. But a critical feature here is that I did not formally test any of Jim’s capacities. I did not ask him to move his right arm. I did not ask him to tell me the meaning of a saying like “a rolling stone gathers no moss.” I did not ask him to remember and repeat number sequences or count backward from 100 by 7s.

Instead, I learned about his history, his interests, his values, and his goals. Jim is 28 years of age. He sustained a brain injury in an automobile accident 12 years ago as he was driving to diving practice. He had been a champion diver in state competition. He has had occupational therapy and speech therapy. He learned how to use a variety of assistive devices. He loves music and has taught himself to play both acoustic and electric guitar one-handed. When I asked him how he did it, he said, “Practice, practice, practice.” He writes music, paints, and composes poetry. He is currently working on an album where his poetry will be set against his music. He speaks poignantly through his poetry:

I am angry . . .

Where is the blame.

I am alive . . .

If I find the treasure of life.

I am alone . . .

Communications breakdown. (Cacciatore, 1994)

Jim is highly motivated to work and earn an income so that he can live on his own, but all of his past jobs have been low paying. He has worked as a companion for another young man with a brain injury. He tried working as a cashier, but found the work too stressful. He currently has a job gathering carts from the parking lot of a large warehouse department store. He has good work skills; he is friendly, on time, and able to carry out routine sequences. He has a small T-shirt company. He uses a computer to design the graphics and adds his own words. Jim wants to be a graphic designer, but he lacks the needed skills. He went to a local community college to study graphic design but did not complete the final course in English as it was too difficult. He did not earn the degree.

He says about himself, “I’ve adapted—I take a ‘don’t worry, be happy’ attitude.” He has maintained hope, but still he is concerned about work and wants very much to move out of his parents’ home and live independently in his own apartment.

Develop Therapeutic Rapport

As I talk with Jim, I not only establish the client-centered performance context, but also begin the critical step of developing therapeutic rapport (Tickle-Degnen, 1995). “Rapport is the process of establishing and maintaining a comfortable, unconstrained relationship of mutual confidence and respect between a practitioner and client” (Mosey, 1981, p. 96). This is the beginnings of a collaborative (consultative) partnership between Jim and myself that will continue to develop throughout the time we work together (depicted by the lighter gray line in Figure 45.4). Collaboration with the client *throughout the intervention process* is required by the AOTA’s (1994a) *Code of Ethics*. Effective goal setting and treatment planning demand the development of a collaborative partnership between the practitioner and the client. The practitioner brings to this partnership expertise related to available intervention strategies and knowledge related to potential outcomes. The client brings his or her values, interests, goals, and priorities. If the collaborative partnership is to be effective, there must be open sharing of each other’s motivations and rationales (Bowen, 1996).

Identify Strengths and Problems of Occupational Performance

As I progress downward and narrow the focus of the evaluation, I identify tasks that are currently supporting or hindering Jim’s role behavior. Task performances that support Jim’s role behavior are Jim’s strengths. Those that he experiences as problematic or that hinder his role behavior are his problems of occupational performance. In the process of narrowing the focus of the evaluation, I remain alert to potential discrepancies between my estimation of Jim’s potential problem areas and those actually identified by him. I will include those tasks among those I will observe Jim performing. For example, Jim indicated that playing guitar is a strength; I wanted to verify his ability. I suspected that preparing meals that are not ready made may pose a problem, even though Jim did not identify cooking as a problem area. I also wanted to know more about his computer and graphic design skills.

Implement Performance Analysis

As I proceed downward to the next step of the evaluation process, I implement a performance analysis (Fisher, 1997a, 1997d). Performance analysis is defined as the observational evaluation of a person’s task performance to identify discrepancies between the demands of a task and the skill of the person. The person’s problems and strengths are described in terms of the quality of the goal-directed actions that comprise the occupational performance, not the client’s underlying capacities and impairments. Performance analyses should not be confused with task or activity analyses, which are intended for purposes of identifying the underlying impairments that limit occupational performance or the inherent therapeutic value of a task

for remediating those impairments (AOTA, 1993; Hagedorn, 1995, 1997; Llorens, 1993; Trombly, 1995b; Watson, 1997).

Implementing a performance analysis requires that we observe the quality of the transaction between the client and the environment as the client performs a task that is familiar, meaningful, purposeful, and relevant. The Assessment of Motor and Process Skills (AMPS) (Fisher, 1997b) is a standardized performance analysis. The performance analysis also can be accomplished through informal observation of a person's occupational performance.

Because I used the AMPS to evaluate Jim, I will describe a few of its key features. The AMPS skill actions are small units of the enactment of a daily life task. An important feature of the skill actions is that they are goal directed. Most frequently, the goal of the AMPS skill action pertains to an action or step embedded within the overall task performance—*reaching* for and *lifting* the jar from the shelf or *gathering* the lettuce to the table. For other AMPS skill actions, the goal pertains more to the overall task performance—*heeding* the client-specified goal (i.e., the client's doing what the client said he or she would do) or *sequencing* the steps of the task in a logical manner such that the person–environment transaction unfolds as a coherent and recognizable routine.

An important feature of scoring an AMPS observation is that no judgment is made regarding the person's underlying capacities. That is, a person may be assigned a low score on the AMPS skill action *Sequences* for reasons other than decreased sequencing capacity. Similarly, a high score on the AMPS skill action *Lifts* would not necessarily mean that the person has good lifting capacity. Because the AMPS is a test of the quality and effectiveness of a person's occupational performance (and not underlying capacities), the person is scored on the basis of what was observed—the transaction of the person with the environment as he or she performs a familiar and chosen task. More specifically, the quality of the performance is what is graded, not the “quality” of the person's underlying capacities nor the “quality” of the environment or task objects with which the person interacts. Those judgments are deferred to the interpretation stage (i.e., Clarify or Interpret Cause), where the practitioner uses professional reasoning and perhaps further assessment to determine person, environmental, task, or socio-cultural factors that may be limiting performance.

Define Actions of Performance That the Person Cannot Perform Effectively

Having observed Jim perform tasks, I proceed to define the actions that he can and cannot perform effectively. When I implemented an informal performance analysis and observed Jim set up and play his guitars, I learned that he is able to do so and, indeed, he is able to play very well using a hammer and “draw” method. When I used the AMPS and observed him prepare toast and coffee, I learned that he is able to lift, transport, and grip task objects effectively. He chose and used appropriate tools and materials, and he heeded the goal of the client-specified task. He had moderate difficulty, however, with effectively stabilizing the toast while buttering it, organizing his workspace, and adapting to problems he encountered during his task performance. Plans are under way to evaluate Jim's computer and graphic skills.

Clarify or Interpret Cause

Having identified the actions that Jim cannot perform effectively, I proceed to clarify or interpret the underlying cause of his ineffective performance. In Jim's case, the underlying cause was obvious. He has hemiplegia, and, during his task performance, he did not use any of the many assistive devices he had received earlier in his rehabilitation. Part of clarifying the cause of Jim's ineffective performance, however, will be to inquire as to why he did not use any assistive devices.

In other cases, as we seek to understand the underlying cause of a person's ineffective occupational performance, we can think in terms of impairments (e.g., John cannot put his arm into the sleeve of his shirt because of limitations in range of motion at the shoulder). We can think in terms of physical environments (e.g., Mary cannot reach the glasses from the cupboard shelf because they are too high). We can think in terms of social environments (e.g., Steven does not finish his school work tasks because the classroom environment is noisy and chaotic). We can consider societal constraints (e.g., Lillian must not bend her hip beyond 90° and reach to put on her shoes because of total hip precautions). And finally, we can consider societal expectations (e.g., Bill's work performance is not acceptable because his low productivity affects company profits).

When the underlying cause is not clear, the occupational therapy practitioner may choose to implement further assessment. Selected practice models, such as the Model of Human Occupation (Kielhofner, 1995) or the Ecology of Human Performance framework (Dunn et al., 1994), provide conceptual structures for assessing characteristics of the person or the environment that limit and support occupational performance. Occupational therapy practitioners are never at a loss for tests of the person's underlying neurologic, musculoskeletal, cognitive, or psychosocial capacities. Finally, a wide range of environmental assessments also are available (Letts et al., 1994).

Select Compensatory Model

Now that I have clarified Jim's problems and the reasons for his limitations, I am ready to select one or more intervention models. I select remedial models when I believe that restoration of underlying capacities will result in improved occupational performance. I select the compensatory model when I believe that remediation is unlikely to affect occupational performance significantly; when remediation will be "too costly in terms of time, energy, or money" (Trombly, 1993, p. 255); or when I am directed by legislation to focus on occupational performance and role behavior. I also can implement both model types simultaneously. Because I suspect that remediation will not benefit Jim, I select the compensatory model.

Plan and Implement Adaptive Occupation to Compensate for Ineffective Actions

Once the compensatory model is chosen, the next step is to plan and implement adaptive occupation. The desired outcome is the design of adaptive occupation to compensate for the

client's ineffective actions. Specific details have been published elsewhere (Duran & Fisher, in press; Fisher, 1997a; Trombly, 1995c), but I will present an overview here so as to demonstrate the process of implementing the compensatory model.⁴

Expand consultative partnerships. When we first meet a client and begin to develop therapeutic rapport, we develop a collaborative (consultative) partnership with the client. Once we know that we will be implementing adaptive occupation, we also must enter into shared *consultative partnerships* with those persons who have access to needed information or who will be affected by the proposed changes. For example, members of the client's family who are living with him or her, or persons who will be providing the client with assistance, are important members of the consultative partnership.

Collaborative consultation, education, and adaptation. Once the members of the consultative partnership are identified, the practitioner implements methods of collaborative consultation (Fisher, 1997a), education (teaching-learning) (Mosey, 1986; Trombly, 1995c), and adaptation (Fisher, 1997a; Trombly 1995c). Through collaborating with the client and his or her family, client-centered goals are established. Then, building on the development of collaborative relationships, the members of the consultative partnership work together to propose and develop strategies for intervention that are based on the principles of adaptation. Finally, the members of the consultative partnership responsible for implementing the interventions are trained in how to do so on the basis of the principles of education. These persons may include the client, caregiver, service extender, or another professional.

Adaptation strategies. As I noted earlier, adaptation includes providing adapted equipment or assistive technology, teaching the client alternative strategies or compensatory techniques, and modifying the task or the physical or social environment. Marla uses a special keyboard and mouse to lessen the effects of repetitive motion. Jim has learned to tie his shoes one-handed. He has also taught himself how to play his guitar, using a one-handed hammer and "draw" method. Ken was taught to use lists to remember which of his many medications to take when. He uses a stool to sit and preach because one of his medications has caused peripheral neuropathy in his feet. Because of continued safety risk, Lillian requires standby assistance when standing and transferring to and from her wheelchair. For occupational therapists, who are experts in adaptation, the list of possibilities is endless.

Reevaluate for Enhanced Occupational Performance

Once the adaptations have been implemented, the client's occupational performance is reevaluated. We again use performance analyses to verify whether the client has met his or her goals. Finally, documentation of the effectiveness of our occupational therapy

⁴The compensatory model has been called the *rehabilitation* (compensatory) model by Trombly (1995c) and the *expanded rehabilitation* model by Fisher (1997a). In this lecture, I have chosen to call it the compensatory model as the term *rehabilitation* implies physical restoration and remediation of impairments. When the compensatory model is used in isolation of the Occupational Therapy Intervention Process Model, it includes all steps included in Figure 45.4, except Select Remedial Model and Plan and Implement Therapeutic Occupation to Remediate Impairments (Duran & Fisher, in press; Fisher, 1997a).

interventions is a critical step toward communicating the unique role of occupational therapy as well as justifying payment of occupational therapy services by health care payers.

Redefine Actions of Performance That the Person Cannot Perform Effectively

If the performance analysis implemented during the reevaluation results in the identification of additional problems, the actions the person cannot perform effectively must be redefined, and the cycle of clarifying the cause, selecting a model, and so on, is repeated.

Select Remedial Model—Plan and Implement Therapeutic Occupation to Remediate Impairments

In the event that the occupational therapy practitioner judges the client to be a good candidate for remediation, the practitioner can select one of many remedial models (e.g., biomechanical, sensory integration). Activity analysis and synthesis (Mosey, 1986) are then used to design therapeutic occupations to remediate the person's impairments that are limiting occupational performance. Ideally, the practitioner reevaluates for enhanced occupational performance, documents changes in performance, and reenters the cycle if further intervention is indicated. If the remediation is not effective, or if recovery plateaus, the practitioner can abandon the use of therapeutic occupation and select the compensatory model.

Conclusions

I realize that we all face the ongoing challenges of changing health care. Many of you, especially those of you affected by managed care and prospective payment, will view what I say as idealistic. I disagree. I believe that my view is the more realistic one. As Karen Selley DeLorenzo (personal communication, March 15, 1998) has so clearly articulated, there will be reduced monies available for rehabilitation services. We will no longer have the luxury of providing intervention for as long as functional gains can be documented. Therefore, we must make every effort to enable our clients to achieve maximum gains within the limited time available. The only way to do this is to introduce adaptive occupation and consultation from day one. Remediation is time consuming, and there is growing evidence that remediation may have limited effects on functional outcomes.⁵

⁵I base this assertion on research that has not demonstrated a strong enough relationship between underlying impairments and occupational performance to support the basic assumption that if the underlying cause (i.e., neuromuscular, biomechanical, cognitive, or psychosocial impairments) of limitations in occupational performance can be identified and treated, then the effects will generalize to improved occupational performance (Bernspång, Asplund, Eriksson, & Fugl-Meyer, 1987; Jongbloed, Brighton, & Stacey, 1988; Lichtenberg & Nanna, 1994; Pincus et al., 1989; Reed, Jagust, & Seab, 1989; Skurla, Rogers, & Sunderland, 1988; Teri, Borson, Kiyak, & Yamagishi, 1989). I also make this assertion despite the fact that some researchers (Judge, Schechtman, Cress, & the FICSIT Group, 1996) continue to claim strong relationships between discrete physical performance measures and instrumental activities of daily living performance even though 75% of their observed relationships were $r < .50$ (<25% explained variance) and 100% of their observed relationships were $r < .60$ (<36% explained variance). Additional evidence to support my assertion lies in studies that indicate that the effectiveness of remedial approaches may be limited (Benedict et al., 1994; Fethers & Kluzik, 1996; Hutzler, Chacham, Bergman, & Szeinberg, 1998; Kaplan, Polatajko, Wilson, & Faris, 1993; Law et al., 1997; Nakayama, Jørgensen, Raaschou, & Olsen, 1994; Neistadt, 1992).

These challenges also provide us with opportunities. In an environment where we are expected to provide quality service in less time, we face a critical need to communicate who we are, why we are important, and that what we do is unique. Case managers and teachers should be the primary targets of these educational efforts. We need to make a philosophical shift. We may need to let go of the type of thinking that is *driven* by a focus on remediation of impairments. Instead, we need to focus on what the person wants and needs to do and work with the person to enable him or her to perform tasks that are meaningful to the person and in a manner that brings satisfaction. This means that we need to rethink what is really important from the perspective of the person—occupational performance or his or her impairments. We need to rethink the evaluation process, using a top-down approach that focuses on occupation. We need to revise our intervention strategies and focus more on adaptation, education, and collaborative consultation and less on remediation. Focusing on occupational performance instead of remediation does not mean that remediation will not occur. The man who built the radio developed better strength and coordination even though that was neither his goal nor mine. Restoration of self-esteem, interests, and values also can, and should, occur through participation in adaptive occupation. When we do focus on remediation, we need to tie our interventions to our philosophical base through the application of therapeutic occupation. And, although I have said little about it during this lecture, I will add that we need to recognize the need to set goals and document efficacy in terms of occupational performance and not impairments or performance components.

Are you prepared to heed Jim's final words?

I will accept and go on.

It is my problem, not you.

What are you going to do about it? (Cacciatore, 1994)

Acknowledgments

I thank my many colleagues and students, here and abroad, who have contributed so much to the development of this lecture through their support and assistance. Many of them have also provided constructive feedback either in the context of the classroom or through ongoing dialogues that, in some cases, have gone on for years. This feedback has played a critical role in the evolution of my thinking about occupation and occupational therapy. I also thank Carol Wassell, Coordinator, Instructional Services, Colorado State University, for her preparation of the figures included in this lecture.

References

- American Occupational Therapy Association. (1993). Position paper: Purposeful activity. *American Journal of Occupational Therapy*, 47, 1081–1082.
- American Occupational Therapy Association. (1994a). Occupational therapy code of ethics. *American Journal of Occupational Therapy*, 48, 1037–1038.
- American Occupational Therapy Association. (1994b). Uniform terminology for occupational therapy—Third edition. *American Journal of Occupational Therapy*, 48, 1047–1054.

- American Occupational Therapy Association. (1995). Position paper: Occupation. *American Journal of Occupational Therapy*, 49, 1015–1018.
- American Occupational Therapy Association. (1997). Statement—Fundamental concepts of occupational therapy: Occupation, purposeful activity, and function. *American Journal of Occupational Therapy*, 51, 864–866.
- Ayres, A. J. (1972). *Sensory integration and learning disorders*. Los Angeles: Western Psychological Services.
- Benedict, R.H.B., Harris, A. E., Markow, T., McCormick, J. A., Nuechterlein, K. H., & Asarnow, R. F. (1994). Effects of attention training on information processing in schizophrenia. *Schizophrenia Bulletin*, 20, 537–546.
- Bernspång, B., Asplund, K., Eriksson, S., & Fugl-Meyer, A. R. (1987). Motor and perceptual impairments in acute stroke patients: Effects on self-care ability. *Stroke*, 18, 1081–1087.
- Bowen, R. E. (1996). The issue is—Should occupational therapy adopt a consumer-based model of service delivery? *American Journal of Occupational Therapy*, 50, 899–902.
- Brunnstrom, S. (1970). *Movement therapy in hemiplegia: A neurophysiological approach*. New York: Harper & Row.
- Cacciatore, J. (1994). *Head injury aggression*. Unpublished poem.
- Christiansen, C., & Baum, C. (1997). Person–environment occupational performance: A conceptual model for practice. In C. H. Christiansen & C. M. Baum (Eds.), *Occupational therapy: Enabling function and well-being* (2nd ed., pp. 47–70). Thorofare, NJ: Slack.
- Clark, F. (1993). Occupation embedded in a real life: Interweaving occupational science and occupational therapy. 1993 Eleanor Clarke Slagle Lecture. *American Journal of Occupational Therapy*, 47, 1067–1078.
- Clark, F. A., Parham, D., Carlson, M. E., Frank, G., Jackson, J., Pierce, D., Wolfe, R. J., & Zemke, R. (1991). Occupational science: Academic innovation in the service of occupational therapy's future. *American Journal of Occupational Therapy*, 45, 300–310.
- Clark, F. P. (1917). The beneficial effects of work therapy for the insane. *Modern Hospital*, 8, 392–393.
- Dunn, W., Brown, C., & McGuigan, A. (1994). The ecology of human performance: A framework for considering the effect of context. *American Journal of Occupational Therapy*, 48, 595–607.
- Dunton, W. R. (1928). *Prescribing occupational therapy*. Springfield, IL: Charles C Thomas.
- Duran, L., & Fisher, A. G. (in press). Occupational therapy assessment and treatment of a client with disorder of executive abilities. In C. Unsworth (Ed.), *Cognitive and perceptual dysfunction: A clinical reasoning approach to assessment and treatment*. Philadelphia: F. A. Davis.
- Evans, K. A. (1987). Nationally speaking—Definition of occupation as the core concept of occupational therapy. *American Journal of Occupational Therapy*, 41, 627–628.
- Fettters, L., & Kluzik, J. (1996). The effects of neurodevelopmental treatment versus practice on the reaching of children with spastic cerebral palsy. *Physical Therapy*, 76, 346–358.
- Fisher, A. G. (1994). Functional assessment and occupation: Critical issues for occupational therapy. *New Zealand Journal of Occupational Therapy*, 45(2), 13–19.
- Fisher, A. G. (1995). *Assessment of Motor and Process Skills*. Fort Collins, CO: Three Star Press.
- Fisher, A. G. (1997a). An expanded rehabilitative model of practice. In A. G. Fisher, *Assessment of Motor and Process Skills* (2nd ed., pp. 73–86). Fort Collins, CO: Three Star Press.
- Fisher, A. G. (1997b). *Assessment of Motor and Process Skills* (2nd ed.). Fort Collins, CO: Three Star Press.

- Fisher, A. G. (1997c). Background information. In A. G. Fisher, *Assessment of Motor and Process Skills* (2nd ed., pp. 11–34). Fort Collins, CO: Three Star Press.
- Fisher, A. G. (1997d). Introduction. In A. G. Fisher, *Assessment of Motor and Process Skills* (2nd ed., pp. 1–9). Fort Collins, CO: Three Star Press.
- Fisher, A. G., Murray, E. A., & Bundy, A. C. (1991). *Sensory integration: Theory and practice*. Philadelphia: F. A. Davis.
- Fisher, A. G., & Short-DeGraff, M. (1993). Nationally speaking—Improving functional assessment in occupational therapy: Recommendations and philosophy for change. *American Journal of Occupational Therapy*, *47*, 199–202.
- Gritzer, G., & Arluke, A. (1985). *The making of rehabilitation*. Berkeley University of California Press.
- Hagedorn, R. (1995). *Occupational therapy: Perspectives and processes*. Edinburgh, Scotland: Churchill Livingstone.
- Hagedorn, R. (1997). *Foundations for practice in occupational therapy* (2nd ed.). New York: Churchill Livingstone.
- Haugen, J. B., & Mathiowetz, V. (1995). Contemporary task-oriented approach. In C. A. Trombly (Ed.), *Occupational therapy for physical dysfunction* (4th ed., pp. 510–527). Baltimore: Williams & Wilkins.
- Hutzler, Y., Chacham, A., Bergman, U., & Szeinberg, A. (1998). Effects of a movement and swimming program on vital capacity and water orientation skills of children with cerebral palsy. *Developmental Medicine and Child Neurology*, *40*, 176–181.
- Jongbloed, L., Brighton, C., & Stacey, S. (1988). Factors associated with independent meal preparation, self-care and mobility in CVA clients. *Canadian Journal of Occupational Therapy*, *55*, 259–263.
- Judge, J. O., Schechtman, K., Cress, E., & the FICSIT Group. (1996). The relationship between physical performance measures and independence in instrumental activities of daily living. *Journal of the American Geriatrics Society*, *44*, 1332–1341.
- Kaplan, B. J., Polatajko, H. J., Wilson, B. N., & Faris, P. D. (1993). Reexamination of sensory integration treatment: A combination of two efficacy studies. *Journal of Learning Disabilities*, *26*, 342–347.
- Kielhofner, G. (1985). *A model of human occupation: Theory and application*. Baltimore: Williams & Wilkins.
- Kielhofner, G. (1995). *A model of human occupation: Theory and application* (2nd ed.). Baltimore: Williams & Wilkins.
- Kielhofner, G. (1997). *Conceptual foundations of occupational therapy* (2nd ed.). Philadelphia: F. A. Davis.
- Kielhofner, G., & Henry, A. D. (1988). Development and investigation of the Occupational Performance History Interview. *American Journal of Occupational Therapy*, *42*, 489–498.
- Law, M., Baptiste, S., Carswell, A., McColl, M. A., Polatajko, H., & Pollock, N. (1994). *Canadian Occupational Performance Measure* (2nd ed.). Toronto, Ontario: CAOT Publications.
- Law, M., Russell, D., Pollock, N., Rosenbaum, P., Walter, S., & King, G. (1997). A comparison of intensive neurodevelopmental therapy plus casting and a regular occupational therapy program for children with cerebral palsy. *Developmental Medicine and Child Neurology*, *39*, 664–670.
- Letts, S., Law, M., Rigby, P., Cooper, B., Stewart, S., & Strong, S. (1994). Person–environment assessments in occupational therapy. *American Journal of Occupational Therapy*, *48*, 608–618.

- Lichtenberg, P. A., & Nanna, M. (1994). The role of cognition in predicting activities of daily living and ambulation functioning in the oldest-old rehabilitation patients. *Rehabilitation Psychology, 39*, 251–262.
- Llorens, L. A. (1993). Activity analysis: Agreement between participants and observers on perceived factors in occupation components. *Occupational Therapy Journal of Research, 13*, 198–211.
- Mosey, A. C. (1981). *Occupational therapy: Configuration of a profession*. New York: Raven.
- Mosey, A. C. (1986). *Psychosocial components of occupational therapy*. New York: Raven.
- Nakayama, H., Jørgensen, H. S., Raaschou, H. O., & Olsen, T. S. (1994). Compensation in recovery of upper extremity function after stroke: The Copenhagen Stroke Study. *Archives of Physical Medicine and Rehabilitation, 75*, 852–857.
- Neistadt, M. E. (1992). Occupational therapy treatments for constructional deficits. *American Journal of Occupational Therapy, 46*, 141–148.
- Neistadt, M. E. (1995). Methods of assessing clients' priorities: A survey of adult physical dysfunction settings. *American Journal of Occupational Therapy, 49*, 428–436.
- Nelson, D. L. (1988). Occupation: Form and performance. *American Journal of Occupational Therapy, 42*, 633–641.
- Occupational therapy in the general hospital. (1917). *Modern Hospital, 8*, 425–427.
- Pincus, T., Callahan, L. F., Brooks, R. H., Fuchs, H. A., Olsen, N. J., & Kaye, J. J. (1989). Self-report questionnaire scores in rheumatoid arthritis compared with traditional physical, radiographic, and laboratory measures. *Annals of Internal Medicine, 110*, 259–266.
- Quiroga, V.A.M. (1995). *Occupational therapy: The first 30 years, 1900 to 1930*. Bethesda, MD: American Occupational Therapy Association.
- Reed, B. R., Jagust, W. J., & Seab, J. P. (1989). Mental status as a predictor of daily function in progressive dementia. *Gerontologist, 29*, 804–807.
- Rudman, D. L., Cook, J. V., & Polatajko, H. (1997). Understanding the potential of occupation: A qualitative exploration of seniors' perspectives on activity. *American Journal of Occupational Therapy, 51*, 640–650.
- Semans, S. (1967). The Bobath concept in treatment of neurological disorders. *American Journal of Physical Medicine, 46*, 732–785.
- Skurla, E., Rogers, J. C., & Sunderland, T. (1988). Direct assessment of activities of daily living in Alzheimer's disease: A controlled study. *Journal of the American Geriatrics Society, 36*, 97–103.
- Spencer, J. C., Davidson, H. A., & White, V. K. (1996). Continuity and change: Past experiences as adaptive repertoire in occupational adaptation. *American Journal of Occupational Therapy, 50*, 526–534.
- Stockmeyer, S. A. (1967). An interpretation of the approach of Rood to the treatment of neuromuscular dysfunction. *American Journal of Physical Medicine, 46*, 900–956.
- Teri, L., Borson, S., Kiyak, H. A., & Yamagishi, M. (1989). Behavioral disturbance, cognitive dysfunction, and functional skill: Prevalence and relationship in Alzheimer's disease. *Journal of the American Geriatrics Society, 37*, 109–116.
- The Oxford English dictionary* (2nd ed.). (1989). Oxford, UK: Clarendon.
- Tickle-Degnen, L. (1995). Therapeutic rapport. In C. A. Trombly (Ed.), *Occupational therapy for physical dysfunction* (4th ed., pp. 277–285). Baltimore: Williams & Wilkins.
- Trombly, C. (1993). The issue is—Anticipating the future: Assessment of occupational function. *American Journal of Occupational Therapy, 47*, 253–257.

- Trombly, C. A. (1995a). Occupation: Purposefulness and meaningfulness as therapeutic mechanisms. 1995 Eleanor Clarke Slagle Lecture. *American Journal of Occupational Therapy*, *49*, 960–972.
- Trombly, C. A. (1995b). Purposeful activity. In C. A. Trombly (Ed.), *Occupational therapy for physical dysfunction* (4th ed., pp. 237–253). Baltimore: Williams & Wilkins.
- Trombly, C. A. (1995c). Retraining basic and instrumental activities of daily living. In C. A. Trombly (Ed.), *Occupational therapy for physical dysfunction* (4th ed., pp. 289–318). Baltimore: Williams & Wilkins.
- Upham, E. G. (1917). Some principles of occupational therapy. *Modern Hospital*, *8*, 409–413.
- Watson, D. E. (1997). *Task analysis. An occupational performance approach*. Bethesda, MD: American Occupational Therapy Association.

