Changing Balance: Environment and Individual

(purposeful activity, occupational therapy process, occupational performance)

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The role of occupational therapy as a process for changing balance from dysfunction to function is discussed in this paper. The individual as the first level environment to be considered for balance in the occupational therapy process is emphasized. The role of purposeful activity as a change determinant and as a valued treatment modality is recognized as a practice factor that needs verification through research in conjunction with systematic study of the occupational therapy process.

I n this paper, I will discuss the individual as an environment, the philosophical base of occupational therapy using examples from practice to illustrate specific points, and the process of occupational therapy in practice.

It has been determined that functional adaptation as a goal of occupational therapy for rehabilitation, prevention of dysfunction, and promotion of function depends upon the dynamic interaction between the individual and the environment. The individual may be encountered by the occupational therapist in multiple environments. To change the balance from illness to health, from dysfunction to function, and from passivity to activity within the individual, it may be necessary to change the balance, that is, intervene with the individual as an environment as the first level of concern.

The Individual As an Environment

Environment has been defined as "all of the conditions, circumstances, and influences surrounding, and affecting the development of an organism encompassing those circumstances that involve intra- and interpersonal forces and the individual." (1) As occupational therapists, we have identified interior environmental factors related to biological, psychophysiological, and sociological functioning that can be changed by administration or prescription of activity.

The individual is the first level environment, whether as a well person, ill, disabled, or dysfunctional person. The integrity of the individual and the intrapersonal environment are critical to the individual’s ability to function adaptively in the second and third level environments of family/spouse/partner interactions and community relationships.

As occupational therapists, we have identified exterior environmental factors related to sociocultural adaptation that influence the interaction between the individual and the environment.

In order to assist clients to change the balance in their lives, the person environment must be balanced to...
its highest potential to enable its interaction with the sociocultural and person-made environment. Balance in the individual environment supports functional performance in activities of daily living, self-care, and independent living skills, in work and play, and learning and leisure. In order to bring about change in the individual client's quality of life, factors relating to the individual as an environment must be considered in the interaction within the environment.

If we view the individual as an environment that requires balance for adaptation, we must view the biological, psychological, and intrapersonal environment components of sensory, motor, psychological, sociological, and cognitive functions that permit interaction with the familial and cultural environment. Such interaction occurs through the use of occupational or purposeful activity for self-care, work, play, leisure, and learning. The occupational behavior frame of reference identifies play and work on a continuum for development, learning, and functioning within the culture. It operationalizes work and play with concepts for understanding work and play, as techniques for evaluating function and dysfunction in work and play and for intervening in bringing about change in the quality of life (2-3). The occupational performance frame of reference operationalizes occupational theory in reference to the sociocultural environment and the biological-psychological environment.

Occupational theory used in this context refers to the inherent factors or properties of activity that elicit intrinsic reinforcement (8, 9). The application of occupational theory operates when occupational therapists administer or prescribe purposeful activity to bring about change in the environment of the individual or the environment within which the individual functions.

Occupational theory is differentiated from occupational behavior and occupational performance as a concept relating to the impact of purposeful activity or occupation on the individual as an environment. In the application of this concept as occupational therapists, we observe changes that are brought about in the individual that include such behaviors as increased or improved sensory processing, improved motor performance, motor coordination, and motor planning; improved functional social skills, and social interaction; improved function in psychological skills; and improved cognitive skills.

Occupational theory and the outcomes in practice resulting from its application need to be systematically studied within the context of the process of occupational therapy practice in the natural environment in relationship to the philosophical base of occupational therapy.

Philosophical Base in Occupational Therapy

The philosophical base of occupational therapy has stood the test of time. The key elements within the conceptualization that are paramount to the profession are:

Humans as active beings are influenced in their development by the use of purposeful activity or occupation. Humans are able to influence their environment through the use of purposeful activity.

Human life is a process of continuous adaptation. Adaptation requires change in functions that promote survival and self-actualization.

Biological, sociological, and psychological factors may interrupt the adaptation process at any time throughout the life cycle, thus generating dysfunction and impairing adaptation.

Purposeful activity administered or prescribed at the appropriate juncture in the rehabilitation, treatment, or rehabilitation of the client facilitates the adaptive process (10).

The function of purposeful activity or occupation to facilitate change . . . has stood the test of time.

Occupational therapy is based upon the belief, the assumption, that purposeful activity, more accurately called occupation, including its interpersonal and environmental components, may be administered or prescribed to prevent and mediate dysfunction and elicit maximum adaptation. Activity or occupation, as used by the occupational therapist, includes both an intrinsic and a therapeutic purpose (11, 12).

The intrinsic purpose of purposeful activity or occupation derives from the inherent quality of the activity or occupation to arouse sensations, to require processing of sensation, to elicit affective, cognitive, and motor responses that feed back into the individual system to...
There is a critical need to differentiate between the specific role . . . bringing about change through the use of activity and . . . broader role . . . providing a continuum of . . . services.

bring about balance. In dysfunctional systems, therapeutic activity or occupation can be administered or prescribed for active participation by the individual to intervene in the input, integration, output, feedback cycle to bring about balance.

The function of purposeful activity or occupation to facilitate change in the individual environment has stood the test of time. It now needs to be verified through research.

Examples of the application of purposeful activity or occupation in the practice of occupational therapy are cited in the following. Questions about the concepts of administration of purposeful activity and the prescription of activity as they relate to the treatment or rehabilitation process are raised. The examples were gathered by a team of two senior students, Mary Werner and Allison Wright (13) at San Jose State University during the fulfillment of the learning contract for Honors Seminar. The examples are used with their permission.

To place the examples into perspective, the students' major question was: What are the most effective techniques or modalities used by occupational therapists in practice? They visited and interviewed therapists in nine discrete clinical and community practice sites. These sites included 1. a neonatal intensive care unit, 2. a pediatric developmental center, 3. an adolescent day treatment unit for emotionally disturbed adolescents, 4. a head injury unit, 5. a cardiac unit, 6. a hand clinic, 7. a spinal cord injury unit, 8. a unit for the treatment of chronic back pain, and 9. a burn unit.

Within each of these environments, the students sought through interview and observation to identify the role of the occupational therapists and the most effective modalities or techniques that were used in occupational therapy treatment. These centers were located within a 50-mile radius of San Jose, California, and the information gleaned from these examples is intended only to raise some cogent questions regarding purposeful activity or occupation and change as well as about the continuum of treatment and theory conceptualization.

For this discussion, three aspects of the Werner-Wright report will be shared: the sequence of the process of occupational therapy practice as conceptualized by the therapists who were interviewed, the therapy/rehabilitation objectives, and the most effective modalities used in the units.

In all units, therapists were committed to reviewing appropriate history and external reports that were available on clients including medical history, industrial reports, work history, psychological reports, educational reports, and those of other related services as indicated. Evaluation was conducted to determine therapy goals. Specific treatment modalities and techniques could be identified as were several phases or stages of therapy.

Therapy for burn clients, head injury clients, and cardiac clients could be specifically identified in a sequence that was divided into pre-post-operative stages or primary and advanced stages or phases.

In the pre-operative stage with burn clients, a prevention mode was operant—preventing deformity and loss of muscle strength and range of motion; whereas post-operatively, a therapy/rehabilitation mode was operant—increasing range of motion, muscle strength, and endurance, assisting in achieving activities of daily living and self-care, exploring vocational potential, and aiding psychological adjustment.

With head injury clients, the stages could be identified as primary and advanced. The primary stage involved evaluation, therapy, and rehabilitation of the occupational performance components involving sensorimotor functions, physical-motor functions, and cognitive, psychological, and social functions, whereas at the advanced stage, occupational performance of behavior related to self-care, work, and leisure were addressed.

In cardiac rehabilitation, four phases of treatment/rehabilitation were identified. During Phase I, the objectives were to increase capacity, decrease stress, and achieve low level activities of daily living and physical activity. During Phase II, the objectives of facilitating independence in self-care, and increasing tolerance for sitting, walking, and climbing stairs and educating the patient and family regarding the disability were delineated. During Phase III, the objectives were to increase physical activity so that the client could return to work, to increase duration of activity, increase...
distance in walking, and facilitate higher level activities of daily living such as showering. Phase IV objectives included returning the client to work with a suitable activity level, prescribing activity to enhance cardiac function, and decreasing risk factors to prevent recurrence of the dysfunction.

Occupational therapy for neonates, pediatric, and adolescent clients could be identified in a natural developmental hierarchy. Objectives included improving reflex integration; normalizing muscle tone; facilitating adaptive responses to visual, auditory, and vestibular stimulation; facilitating normal developmental skills such as head, trunk, and extremity control; improving behavioral responses and interaction with handling and other environmental stimulation; increasing body and spatial awareness; improving sensory and perceptual skill development; improving gross and fine motor coordination; increasing attention and concentration; assisting the development of social skills, behavior control, and appropriate expression of feelings; facilitating academic achievement; increasing communication skills, individually and in a group; increasing problem-solving skills; increasing self-esteem; and facilitating reintegration of client into family, school, job, or vocational setting.

Occupational therapy and rehabilitation for hand clinic clients in this project center has the primary goal of returning the individuals to their original jobs by modifying the job, tools, time, and/or hand function, or by finding another job for which the client was better suited, and bridging the gap between the work site and the center. Objectives included decreasing edema, sensiti­

ity, and pain; increasing range of motion, strength, and hand function; aiding in psychosocial adjustment to the disability; and aiding in the diagnosis of dysfunction. For the chronic back pain clients, occupational therapy objectives involved increasing functional abilities, improving body mechanics, decreasing the focus of pain, increasing sitting and standing tolerance, and facilitating client support groups.

Occupational therapy objectives for the spinal cord-injured client were conceptualized from increasing joint range of motion, increasing muscle strength, and preventing deformity, to facilitating resumption of meaningful family, social, community, vocational and leisure roles. Specific objectives included increasing physical endurance; facilitating use of special equipment; developing maximal independence in performance of activities of daily living; exploring vocational and avocational potential, and aiding in psychosocial adjustment to disability.

The occupational therapy objectives described for each of these client populations are concerned first with the client as an environment that needs to gain or regain integrity in order to function adaptively within the external sociocultural and person-made environments.

What were the most effective modalities used in the units represented in these examples? All units used purposeful activity as administered, prescribed, or monitored by the occupational therapist in the treatment/rehabilitation of their clients and in the prevention of dysfunction. The fact that all of the units represented in these examples used purposeful activity cannot be generalized to all occupational therapy clinical and community sites nor should it be. The point to be made here is that purposeful activity seemed to be a valued part of the treatment process but was not the TOTAL treatment/rehabilitation process. Purposeful activity was used for tactile, visual, and auditory stimulation; for vestibular and proprioceptive stimulation to facilitate feeding and positioning; for social integration; for motor planning; body mechanics; muscle strengthening and reeducation; for increasing endurance; developing leisure life; developing self-care skills, pre-work, work and learning skills; and for facilitating change in areas of dysfunction in occupational performance.

The activities, tasks, and occupations used included toys, movement, special equipment such as scooter boards and nets, games, arts and crafts, and group interaction.

Other modalities that were identified as effective and as a routine part of therapy/rehabilitation included: inhibition and facilitation techniques; counseling, educating, and providing home programs for parents and other family members; behavior modification techniques; whirlpool; paraffin baths; exercises; biofeedback; splinting (orthotics); selection and application of adaptive equipment; prevocational training; and transfer training.

Since purposeful activity, occupation, or the use of objects in active doing was valued in these settings but did not constitute the TOTAL therapy regimen, it raises the question for us regarding the continuum of care-giving. It raises the question and illustrates the dilemma and complexity of concern about whether our professional identity should be defined by modalities and techniques or by philosophy, theory, process, and frames of reference, or by both.
Process of Occupational Therapy in Practice

The process of occupational therapy in practice begins with the client who is identified through case finding or by referral (12). The client population may be well or identified as ill, disabled, or dysfunctioning. For the well client population, the philosophical base of occupational therapy, occupational

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theory, occupational therapy process, and occupational frames of reference should permit diagnosis of occupational dysfunction and discrimination of the occupationally functional from the dysfunctional. Among the identified ill, disabled, or dysfunctioning, the occupational therapy philosophical base, theory, process, and frames of reference should permit decision-making for those clients who are appropriate for the services of an occupational therapist and those who are not.

Evaluation of the client through the use of appropriate occupation-related methods, techniques, and objects for behavior observation, history taking, history analysis, and testing should permit determination of function and dysfunction in areas of occupational performance and occupational performance components. Such evaluation should permit selection of clients for whom occupational therapy is appropriate and discrimination of those for whom occupational therapy is appropriate from those for whom it is not.

Intervention by occupational therapists includes problem solving with the client and significant others regarding the needs of the person. The client as the first level environment needing balance must be considered in terms of those needs. Administration, prescription, or monitoring of purposeful activity or occupation is an essential part of occupational therapy offered as a service. As demonstrated earlier, purposeful activity or occupation is not the totality of the intervention that is offered by occupational therapy. In the examples presented, intervention included counseling, educating, and providing home programs for parents and other family members; exercises, splinting, and so on. There is a critical need to differentiate between the specific role of occupational therapy as a means of bringing about change through the use of activity and the broader role of occupational therapy in providing a continuum of health care and rehabilitation services. These roles need to be conceptualized by occupational therapy practitioners and educators and systematically studied and verified.

Reevaluation of the effects of intervention may include determination of the level of occupational function within the person environment. Determining whether clients are occupationally functional to their highest potential in sensory, motor, psychological, social, and cognitive abilities, and in occupational performance of activities of daily living/self-care, work, play, leisure, and learning, and whether the balance of work, play, and leisure are conducive to an adaptive quality of life are the functions of occupational therapy practice.

This cursory process analysis points to a need to thoroughly study the process of occupational therapy from the point of case identification or referral through outcome in both successful and unsuccessful treatment/rehabilitation efforts. It also points to a need to identify the modalities that are used in treatment and rehabilitation to bring about change in the individual and in the environment, in addition to purposeful activity or occupation. There is a need to measure the efficacy of the modalities and process as well as the outcome of care against the philosophical base of occupational behavior and occupational performance.

The question then arises "what about the other frames of reference?" Some of the frames of reference that have been identified in the practice of occupational therapy but are not based exclusively upon primary occupation science theory include: neurodevelopmental and neurobehavioral frames of reference; developmental frames of reference; behavioral, humanistic, and psychoanalytic frames of reference; acquisitional and spatiotemporal adaptational frames of reference. These, among other frames of reference, permit understanding the person-environment and the application of purposeful activity or occupation to bring about change in the occupational performance components, occupational performance, and occupational behavior of the client. These frames of reference must continue to be examined for their demonstrated usefulness in the practice of occupational therapy.

Concluding Statement

In conclusion (based on the collective presentations of the major session speakers and others throughout the week), there is evidence to suggest that there are lucunae present in the current practice of occu-
The techniques for assessment... must permit the diagnosis of occupational dysfunction, differentiating between function and dysfunction... occupational therapy. These lucuæ permit therapists to fractionate client care by focusing more specifically on one or more aspects of occupational performance components or on one or more aspects of occupational performance or behavior. Occupational therapy practice must be conceptualized and grounded on a firm foundation of a holistic philosophy of occupational therapy that uses purposeful activity or occupation as administered or prescribed and monitored by occupational therapists or administered by certified occupational therapy assistants. In moving toward professionalization; the profession must be committed first to knowing the foundation of holistic philosophy. It must be committed to conceptualizing and testing occupational theory related to the factors inherent in purposeful activity or occupation, particularly concerned with intrinsic and extrinsic reinforcement. It must be committed to generating research to support or refute the frames of reference and theoretical models that exist within the field of occupational therapy. It must be committed to contributing to the development of new frames of reference and theoretical models that relate specifically to the philosophical base of occupational therapy.

The philosophy, theory, process in practice and frames of reference for occupational therapy must be compatible. The techniques and modalities of occupational therapy for case finding, evaluation, and intervention must reflect congruence with the philosophical base of occupational therapy, the basic science of occupation, occupational theory, and occupational behavior/performance frames of reference.

The techniques for assessment and evaluation must permit the diagnosis of occupational dysfunction, differentiating between function and dysfunction in well populations and determining suitable candidates for occupational therapy services among disabled, ill, and otherwise dysfunctional clients.

- It is time for commitment to the science of occupation and to the verification of occupational therapy theory.
- It is time for commitment to understanding and articulating the clinical reasoning process.
- It is time for commitment to the ownership of the meaning of occupation and activity, and the responsibility to explain the phenomenon.
- It is time for commitment to unity of the profession.
- It is time for commitment to pro-active professional management and publicly claiming the legacy of health through occupation.
- It is time for commitment to the habilitation and rehabilitation of clients in both clinical and community settings and for the quality of life beyond the role of medicine in the client’s care.
- It is time for commitment to bridging the gap between the level of knowledge, theory, development, and practice as a vital of our heritage.
- It is time for commitment to our belief in the “poetry and value of the commonplace.”

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REFERENCES
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