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The Person-Environment-Occupation Model: A transactive approach to occupational performance

ABSTRACT Occupational therapy theory, practice and research has increasingly emphasized the transactional relationship between person, environment and occupation. Occupational performance results from the dynamic relationship between people, their occupations and roles, and the environments in which they live, work and play. There have, however, been few models of practice in the occupational therapy literature which discuss the theoretical and clinical applications of person-environment interaction. This paper proposes a Person-Environment-Occupation Model of occupational performance which builds on concepts from the Occupational Therapy Guidelines for Client Centered Practice and from environment-behaviour theories. The model describes interactions between person, occupation and environment, outlines major concepts and assumptions and is applied to a practice situation.

RÉSUMÉ La théorie, la pratique et la recherche en ergothérapie mettent de plus en plus l'accent sur la relation transactionnelle entre la personne, son environnement et son occupation. Le rendement occupationnel se traduit par la relation dynamique entre les gens, leurs occupations, leurs rôles et les environnements dans lesquels ils vivent, travaillent et se détendent. Par ailleurs, peu de modèles, dans les publications sur la pratique en ergothérapie, font état des applications théoriques et cliniques de l'interaction entre la personne et son environnement. Cet exposé décrit le rendement occupationnel dans un Modèle relationnel personne-environnement-occupation à partir des concepts élaborés dans les Lignes directrices pour une pratique de l'ergothérapie centrée sur le client et des théories sur l'environnement et le comportement. Le Modèle décrit les interactions entre la personne, son occupation et son environnement, souligne les principaux concepts en cause et est appliqué dans le cadre d'une situation pratique.

The early history of occupational therapy recognized that the relationship between persons and their environments. For example, Crane (1919) discussed how occupational therapy can bolster morale in the hospital environment and recommended the establishment of healthy hospital environments. While these ideas were present early on in occupational therapy, they were not emphasized in occupational therapy literature during the 1940s to 1960s. During the past 20 years, views on the relationship between occupation and the environment have altered. Occupational therapy theory, research and practice have moved from a biomedical model based on principles of cause and effect, to a transactive model of occupational performance. The latter recognizes that occupational performance may be better described as the product of a dynamic, interwoven relationship that exists among people, their occupations and roles, and the environments in which they live, work and play (Canadian Association of Occupational Therapists (CAOT), 1991; Christiansen & Baum, 1991; Law, Cooper et al., 1994; Polatajko, 1994).

These changes indicate that, on a broad scale, people now consider the environment from a more complex transactive view rather than from an interactive perspective. The interactive approach assumes that characteristics of the person and characteristics of the environment exist independently of one another, so that they can be separated for study. The relationship between these characteristics is considered to occur in a linear direction and assumes cause and effect between characteristics. These characteristics are considered to be discrete and easier to measure. An interactive approach allows behaviour to be predicted and controlled, by influencing change at the level of an individual or environmental characteristic. On the other hand, a transactional approach assumes an interdependence of person and environment. In this approach, it is acknowledged that behaviour is influenced and cannot be separated from contextual influences, temporal factors, and physical and psychological character-

istics. Using a transactional approach, it is recognized that a person's contexts are continually shifting and as contexts change, the behaviour necessary to accomplish a goal also changes (Dunn, Brown & McGuigan, 1994). The unit of measurement studied using a transactional approach is an event and the meaning of that event to participants.

As well, disability advocates stress that problems with disability stem primarily from the association between the individual and the environment (Hahn, 1984; Jongbloed & Crichton, 1990). Environments may foster dependency and frequently offer poor solutions to the problems of disability. Proponents of this view emphasize the ecological nature of disability and recognize that problems related to disability may be caused by the relationship between a person with a disability and the environment, rather than by the disability itself. Therefore, rather than focus change on the person, they recommend that social policy and health intervention be used to change environmental conditions to ones that foster the participation of people with disabilities in our communities (Funk, 1987; Law, 1991).

While the importance of person-environment relations has been generally recognized, there is a lack of occupational therapy literature describing the theoretical and clinical applications of person-environment interaction as these pertain to occupational therapy. The purpose of this paper, therefore, is to discuss a Person-Environment-Occupation Model of occupational performance which can form the basis of a clinical model of practice for occupational therapists.

LITERATURE REVIEW ENVIRONMENT

The study of human ecology is concerned with human beings and their relationship with their environment. The term environment is defined as those contexts and situations which occur outside individuals and elicit responses from them (Law, 1991). It includes the personal, social and physical environment. A concept prevalent in the

environmental literature and more recently in health, is person-environment congruence or environmental fit (Knapper, Lerner, & Bunting, 1986; Michelson, 1976; Shalinsky, 1986). Person-environment congruence suggests the coexistence of human beings and the environment, with neither dominating the other.

Several taxonomies of the environment have been created to assist in studying the interaction between individuals and the environment. Shalinsky (1986) describes environmental factors as physical (the built and natural environments), and psychosocial, (the psychological and social factors such as attitudes, family, and government). This classification is similar to others in which environments have been described as inanimate (physical) and animate (social) (Knapper et al., 1986). The Occupational Therapy Guidelines for Client-Centred Practice (CAOT, 1991) classify environmental factors as cultural, economic, legal, political, physical and/or social. It has also been proposed that environmental characteristics are influential at various levels, including the person, home, neighbourhood, community, province and country (Law, 1991).

THEORETICAL ORIGINS

Considerable multidisciplinary interest has been generated about the study of persons and environments, resulting in a separate area of environment-behaviour studies. Much of the research in this area has roots in the writings of Lewin (1933) on environmental press theory and of Murray (1938) on need-press theory of human behaviour. The ideas of the leading theoreticians are described briefly and summarized in Table 1 to demonstrate the similarities and differences of their beliefs and the diversity of their disciplinary preparation.

In the field of gerontology, Lawton (1977) and Kahana (1982) have focused on seniors and the fit between the person and the environment as people age. Kahana, a sociologist, believes that the characteristics of the individual and the characteristics of the environment should predict functional performance. Lawton, a psychologist, believes that both adaptive or mal-

adaptive behaviours can result from the person-environment relationship.

Moos (1980), a clinical psychologist, developed the Social Ecology Model on the basis of his observation that environmental characteristics influenced the behaviour of patients in a psychiatric setting. Rather than focus on the individual person, Moos studied the effects of demographic characteristics, self-concept and health on the function of groups of elderly or psychiatric residents.

Kaplan (1983), an environmental psychologist, developed the Model of Person-Environment Compatibility, to conceptualize the relationship between the internal environment of the individual and the opportunities and choices offered by the external environment. In his view, informational processes such as perception, attention and planning have a significant influence on function. In contrast, Lawton looks at a diverse collection of abilities, such as, cognition, general physical health, motor, sensory and perceptual skills, and their determination of an individual's level of competence.

Baker and Intagliata (1982) were concerned with quality of life issues for persons with persistent mental illness, acknowledging the interplay between the individual's perception of the environment and the *real* characteristics of the environment. Kaplan (1983) and Baker and Intagliata (1982) emphasized the internal environment of the individual and how this determines the relationship between the individual and the external world. For example, memories of past experiences are often used to evaluate current and future performance options.

Bronfenbrenner (1977), with a background in human development, conceived the Ecological Systems Model that centres on the social development of the individual over his or her life span. This stresses the interdependence of the social environmental systems of home, family, school, work, community and country. Weisman (1981), an architect and psychologist, described how the physical environment of an organization can be designed to influence the

Table 1
Important Environmental Behavioural Theorists

	Target population	Definition of environment	Key assumptions	Measurement focus
Bronfenbrenner (1977)	individuals/families/ social groups	social & cultural structures	<ul style="list-style-type: none"> • interdependence of social systems • individuals create meaning in the environment 	social structures & climate in groups and institutions
Baker & Intagliata (1982)	persons with persistent mental illness	two components: actual environment & individual's perception of the environment	<ul style="list-style-type: none"> • individuals actively engage to achieve fit between themselves and perceived environment • satisfaction dependent on degree of person-environment fit 	self-reported quality of life
Healthy Communities (Berlin, 1989)	community	biological, physical, cultural, social and economic components	<ul style="list-style-type: none"> • communities need to focus on participation, equity & sustainable development • need to change environments, rather than changing persons to fit the environment 	community indicators of health and well-being
Kahana (1982)	persons who are aging	social structures influencing behaviour	<ul style="list-style-type: none"> • a close fit between environmental characteristics and individual preferences contributes to a sense of well being 	person-environment fit
Kaplan (1983)	individuals	environment has internal (within person) and external characteristics	<ul style="list-style-type: none"> • a person's cognitive processes, including memories of past events, influence their perceptions of environment and subsequent actions • supportive environments increase personal adaptation 	self-reported quality of life
Lawton (1986)	persons who are aging	as stressors or resources influencing competence	<ul style="list-style-type: none"> • environmental press consists of forces in the environment that evoke a response • as personal competence decreases, vulnerability to environmental influences increases 	individual competence
Moos (1980)	groups in institutional settings; e.g., work environments, school, residences	physical, policy, suprapersonal & social components	<ul style="list-style-type: none"> • environmental factors interact with personal characteristics to influence behaviour • behaviour and environment can be changed 	characteristics of residential, work and school environments
Weisman (1981)	employees and work organizations	individual, organiza- tional and physical subsystems	<ul style="list-style-type: none"> • structure and characteristics of physical space influence work performance • organizational goals can be achieved by altering the physical environment 	physical environment social behaviour patterns

behaviours of employees towards meeting organizational goals and objectives. He is the only theorist to emphasize the physical environment more than the other components of the environment.

Uniquely, the Healthy Communities conceptual model (Hancock & Duhl, 1986) focuses on social policy and the distinctive needs of the community. The central behavioural concept found in the Health Communities Model is the need to change environments to fit community needs rather than trying to change individuals to fit environments.

Most of these theorists developed their ideas first within an interactive framework. This was done to facilitate the research efforts required to establish the corroborative foundation of the theoretical models. However, the limitations of these approaches is frequently acknowledged by at least some of these authors who suggest that their ideas at best approach transactive principles (Windley & Sheidt, 1980).

OCCUPATIONAL THERAPY PERSPECTIVE ON ENVIRONMENT

In occupational therapy, O'Reilly (1954) was one of the first to discuss person-environment interaction, although this involved fitting the patient into the environment so that life could be resumed with minimal stress. In the 1970s and 1980s, Kielhofner's Model of Human Occupation (Kielhofner & Burke, 1980) described the interaction between a living system and its environment. Barris (1982) extended Kielhofner's view of the environment by discussing the various properties of the environment and how it may provide an optimal level of arousal for each client. Howe and Briggs (1982) proposed an Ecological Systems Model for occupational therapy which studied the relationship between organisms and their environment.

The literature demonstrates that the importance of the environment in influencing behaviour and the use of the environment as a treatment modality in occupational therapy were increasingly discussed over the next decade.

Other important examples of this trend are found in publications by Kiernat (1982), the Occupational Therapy Guidelines for Client-Centred Practice (CAOT, 1991) and Christiansen and Baum's (1991) Person-Environment-Performance framework. The Occupational Therapy Guidelines for Client-Centred Practice (CAOT, 1991) outline a model of occupational performance which depicts a person's performance in self-care, productivity and leisure tasks and activities as influenced by an individual's personal characteristics and the environments in which they live, work and play. Christiansen and Baum (1991) focus on the influence of environmental factors on the performance of tasks and roles. They state that environmental factors such as physical, social and cultural aspects of the environment, arousal and environmental press and public policy can enable or impede human performance. General systems theory, which states that there is constant interplay between the human organism, as an open system and its environment, has also been influential in shaping occupational therapy assessment and intervention models in this direction (Reed & Sanderson, 1992). Schkade and Schultz (1992) integrated concepts of occupation and adaptation into an occupational adaptation frame of reference, which gives equal importance to the person, the occupational environment and the interaction of the two as they come together to produce occupation.

Occupational therapists have recently studied the work of Csikszentmihalyi & Csikszentmihalyi (1988) who have described the relationship between the challenges of an activity and individual skills. When the challenges presented by an activity being carried out within an environment are in harmony with a person's skills, satisfaction with the experience of that activity is greater. This view is similar to environmental theories of adaptation described by Lawton and others and recognizes the transactional nature of the person-environment relationship. Dunn et al. (1994) describe the importance of context in determining an individual's func-

tional performance. In their Ecology of Human Performance framework, the tasks that a person wishes to achieve are always significantly influenced by the context in which the task is performed. Context includes temporal characteristics such as age, developmental stage, health status, time, as well as the physical, social and cultural environment (Dunn et al., 1994).

RELEVANCE TO OCCUPATIONAL THERAPY

The profession of occupational therapy has traditionally dealt with the needs of single clients, usually based in homes or in institutions. The needs of groups and of the community have not been deliberately ignored by the profession, but until now, have certainly received less attention within the scope of practice. Additionally, the previous medical orientation of practice has linked occupational therapy more naturally with other health professionals and not necessarily fostered interaction with social scientists, human geographers, architects and interior designers, interested in planning therapeutic and enabling environments. Societal changes and legislation, for example the Americans with Disabilities Act (1990) and parallel plans being proposed in Canada (Malkowski, 1994), as well as the reorganization of the delivery of health care, will require us to re-evaluate and adjust our roles to meet these challenges, in particular the shift of health care into a community forum. Such thrusts should encourage us to link with, and learn from groups with parallel person-environment interests as well as with other health care professionals.

THE DEVELOPMENT OF THE PERSON-ENVIRONMENT MODEL OF OCCUPATIONAL PERFORMANCE

The focus and concerns of the field of environment behaviour studies appear to fit well with the clinical and community interests of occupational therapy. Our profession seems a natural addition to this multidisciplinary group that includes environmental psychology, social science, anthropology, human geography and architecture. Like clinical psychology, occupational therapy enrich-

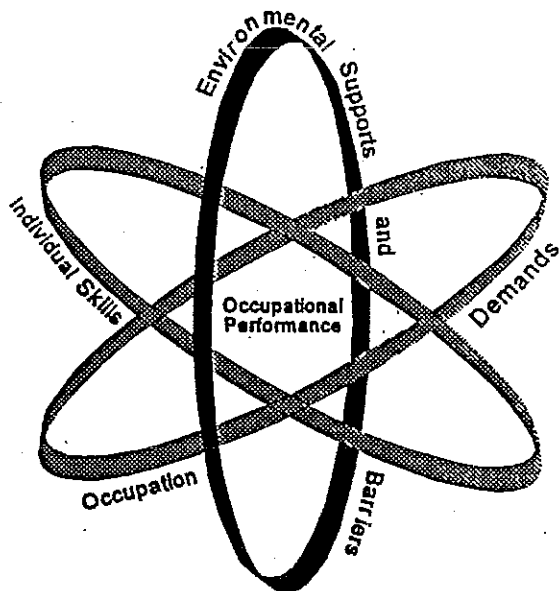
es the group by providing an interface with health care.

The development of a Person-Environment-Occupation Model relevant to occupational therapy can provide a foundation for application to practice. The ideas presented here were primarily influenced by theorists whose views were described earlier, Lawton and Nahemow (1973) and Csikszentmihalyi & Csikszentmihalyi (1988), and by current Canadian guidelines for occupational therapy practice and approaches to measurement, the Occupational Therapy Guidelines for Client-Centred Practice (CAOT, 1991) and the Canadian Occupational Performance Measure (COPM) (Law, Baptiste et al., 1994). The work of Lawton & Nahemow (1973) and Csikszentmihalyi & Csikszentmihalyi (1988) offered suitable theoretical ideas for considering occupational therapy interventions at both the personal and environmental level, but also provided sufficient flexibility to allow the inclusion of the notion of occupational performance as a critical variable. The influences of the Canadian guidelines reflect occupational therapy's concerns with shifting the focus of practice to consider the interests and needs of the client as paramount, and with recognizing the environment as an under-used resource for interventions. The last element, the COPM, offers a way of measuring outcomes that recognizes the client as the critical component of clinical interventions.

A PERSON-ENVIRONMENT-OCCUPATION MODEL OF OCCUPATIONAL PERFORMANCE

A diagrammatic representation of the Model is shown in Figure 1A. This depicts the three components of the model; i.e., person, environment and occupation, as inter-related circles. The overlap of the three elements represents occupational performance. The components are three dimensional, that is, they extend into a cylindrical form to indicate the continuity of these factors throughout life (Figure 1B). Reflecting the dynamic aspects of the model, a cross-section taken at discrete points in time would reveal

Figure 1a
A Person-Environment-Occupation Model of Occupational Performance



different interactions and forces at play in each of the three areas. These would mirror the developmental phase of the person and variations in the person, environment or occupation at any one time. The inter-related circles represent the influences on occupational performance at any one time, while the outer area within the cylinder represents the context within which person-environment-occupation transactions take place.

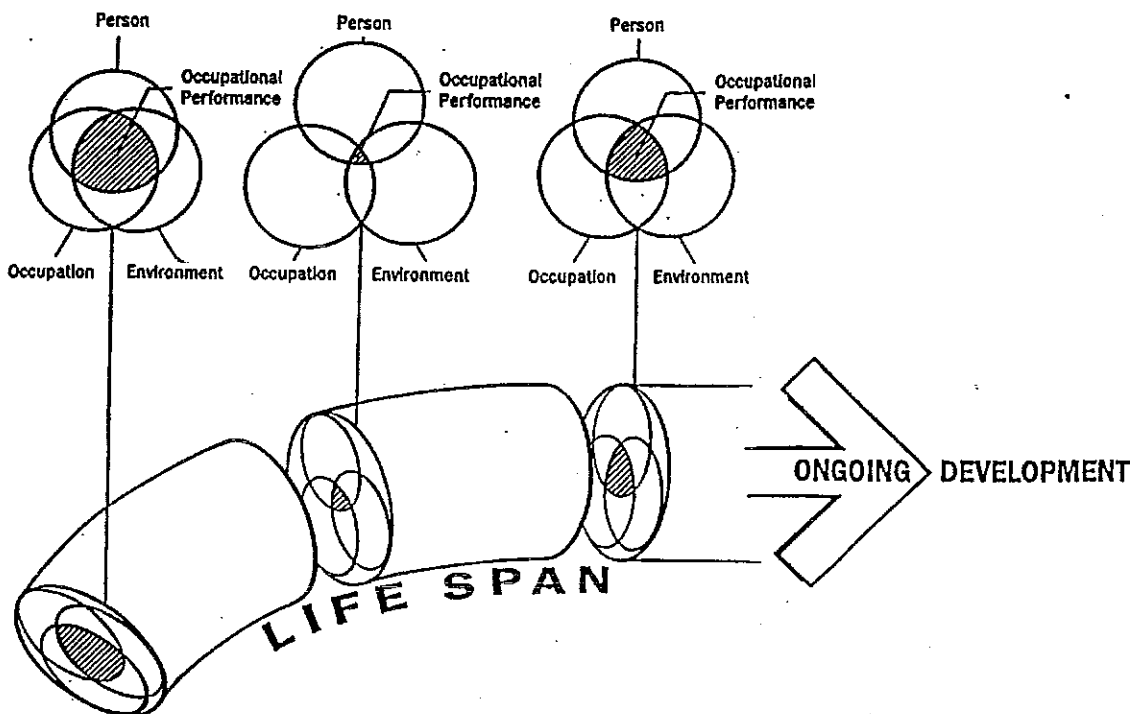
MAJOR CONCEPTS OF THE MODEL

The following are identified as the major concepts of the Person-Environment-Occupation Model of occupational performance: the person, the environment, activity, task, occupation(s) and occupational performance. These are defined and illustrated in the subsequent sections.

The Person

The *person* is defined as a unique being who assumes a variety of roles simultaneously. These roles are dynamic, varying across time and

Figure 1b
Depiction of the Person-Environment-Occupation Model of Occupational Performance across the lifespan illustrating hypothetical changes in occupational performance at three different points in time



context in their importance, duration and significance. The person is seen holistically as a composite of mind, body and spiritual qualities. The person brings a set of attributes (performance components) and life experiences to bear on the transaction described as occupational performance, including self-concept, personality style, cultural background and personal competencies. This last factor incorporates abilities related to motor performance, sensory capabilities, cognitive aptitude and general health (Lawton & Nahemow, 1973). Finally, each person calls upon a set of skills, both learned and innate, in order to engage in occupational performance.

The Environment

Like most person-environment models, the Person-Environment-Occupation Model of occupational performance defines the *environment* broadly (Law et al., 1992). This broad definition gives equal importance to the cultural, socio-economic, institutional, physical and social considerations of the environment. Additionally, the model considers each of these domains from the unique perspective of the person, household, neighbourhood, or community. Groups vary in size, and this variance has been considered in the development of the matrix classifying environments by category and personal perspective (Law, 1991). Barker (1968) suggests that the use of the environment itself dictates the manner in which we behave. For example, a community hall in a small town could be used for parties, for political meetings, or as a temporary church. Each of these uses, often involving the same people, would predict different roles, activities and occupational behaviours. The use at a particular point in time would be sufficient to cue appropriate behaviour. This emphasizes the need to understand the context within which behaviour is carried out (Dunn et al., 1994).

Activity, Task and Occupation(s)

The model proposes that the concepts of activity, task and occupation are nested within each other. They are defined discretely but presented together in this section in order to emphasize this close

relationship. The model incorporates the thinking of Christiansen and Baum (1991) in this section.

Activity is considered to be the basic unit of a task. It is defined as a singular pursuit in which a person engages as part of his/her daily occupational experience. An example of an activity is the act of writing.

Task is defined as a set of purposeful activities in which a person engages. An example of a task is the obligation to write a report.

Occupation is defined as groups of self-directed, functional tasks and activities in which a person engages over the lifespan. The concept of occupation is illustrated by a managerial position requiring an individual to engage in frequent report writing. This occupation can be considered a component of the individual's professional activities. Occupations are defined as those clusters of activities and tasks in which the person engages in order to meet his/her intrinsic needs for self-maintenance, expression and fulfilment. These are carried out within the context of individual roles and multiple environments.

Temporal Aspects

The temporal aspects of the model are described by the time patterns and rhythms that encompass the occupational routines of individuals over a day, week, or longer. Extended to their fullest, these represent the life span of the person (Figure 1B). As illustrated, the interaction and influence of the three components will vary across time. For example, an infant is predominately influenced by the occupational routines of his/her parents and the home environment while the person-environment interactions of a senior are more community-based and can involve many individuals and groups other than family.

Occupational Performance

Occupational performance is the outcome of the transaction of the person, environment and occupation. It is defined as the dynamic experience of a person engaged in purposeful activities and tasks within an environment.

MAJOR ASSUMPTIONS OF THE MODEL

Certain assumptions are inherent in the model. These include assumptions about the components and their interactions. The major assumptions developed are described and illustrated below.

The Person

The model assumes that the person is a dynamic, motivated and an ever-developing being, constantly interacting with the environment. The qualities defining the individual will influence the way in which the person interacts with the environment and carries out his/her occupational performance. These attributes are amenable to change, although some characteristics will be more responsive to intervention than others. For example, a person's cultural roots cannot be changed. However, a person's cultural views and practices may be modified by a move to another culture or by self-determination.

The Environment

The environment is seen as the context within which the occupational performance of the person takes place. It influences behaviour and in turn, is influenced by the behaviour of the person. The environment is not static and can have an enabling or constraining effect on occupational performance. The environment is considered to be more amenable to change than the person (Kiernat, 1982; Law, 1991; Lawton, 1986).

Occupations

Occupations are considered to meet the person's intrinsic needs for self-maintenance, expression and fulfilment within the context of his/her personal roles and environment. Occupations include activities and tasks done to accomplish a purpose. They are pluralistic and complex, and a necessary function of living.

Occupational Performance

Occupational performance is viewed as a complex, dynamic phenomenon. It has both spacial and temporal considerations, and is shaped by the transaction that occurs among the person, environment and occupation in which the person

engages. Occupational performance requires the ability to balance occupation and views of self and environment that sometimes conflict, and to encompass changing priorities. Over a lifetime, individuals are constantly renegotiating their view of self and their roles as they ascribe meaning to occupation and the environment around them. The observable qualities of occupational performance can be measured objectively; its subjective attributes are more appropriately measured by self-report.

Person-Environment-Occupation Fit

The model assumes that its three major components (person, environment, occupation) interact continually across time and space in ways that increase or diminish their congruence. The closer their overlap or fit, the more harmoniously they are assumed to be interacting. The outcome of greater compatibility is therefore represented as more optimal occupational performance. Figure 2 illustrates graphically how the area depicting occupational performance can be changed by maximizing the fit or lack of fit of the three components of the model.

For example, an intervention that improves the enabling aspects of the environment for an individual allows a compatible fit to be maintained or created, thereby preserving or increasing occupational performance (Figure 3). Similarly, an intervention that improves the abilities of the person when occupation cannot change also enables occupational performance to be preserved or improved. Other diagrams could be conceived to illustrate how changes to the environment and/or activity could affect either occupation or the person and hence, the outcome of occupational performance.

IMPLICATIONS FOR OCCUPATIONAL THERAPY PRACTICE

A Person-Environment-Occupation Model of occupational performance offers a number of advantages to the clinical practice of occupational therapy. These include:

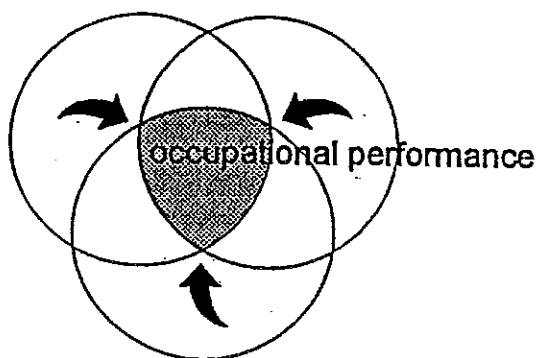
- the consideration of interventions that target

- the person, occupation and the environment in different ways;
- the option of using multiple avenues for eliciting change;
- the ability to suggest and implement interven-

- tions in context and at various levels of the environment;
- the use of a wider repertoire of well validated instruments of measure developed by other disciplines.

Figure 2
An Illustration of Changes to Occupational Performance as a Consequence of Variations in Person, Environment and Occupational Fit

Maximizes fit
and therefore maximizes occupational performance



Minimizes fit
and therefore minimizes occupational performance

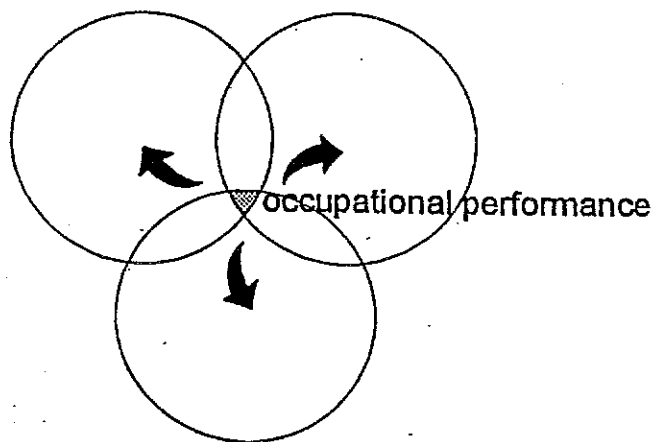
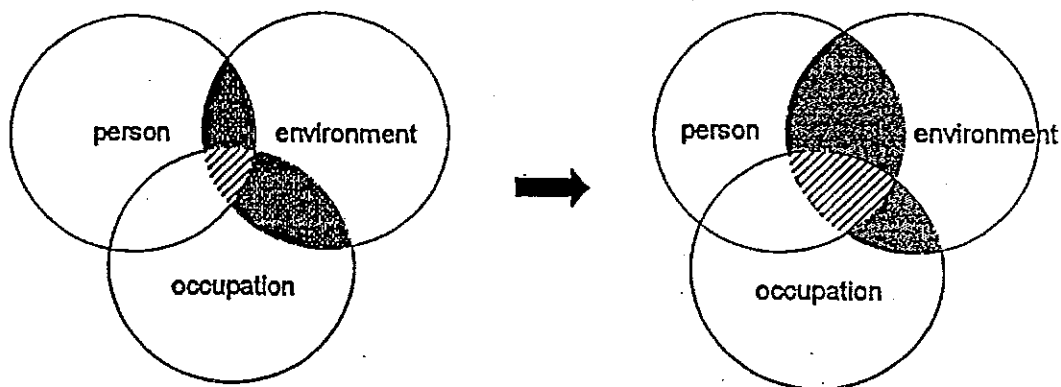


Figure 3
Effect of Intervention to Change Environment on Occupational Performance

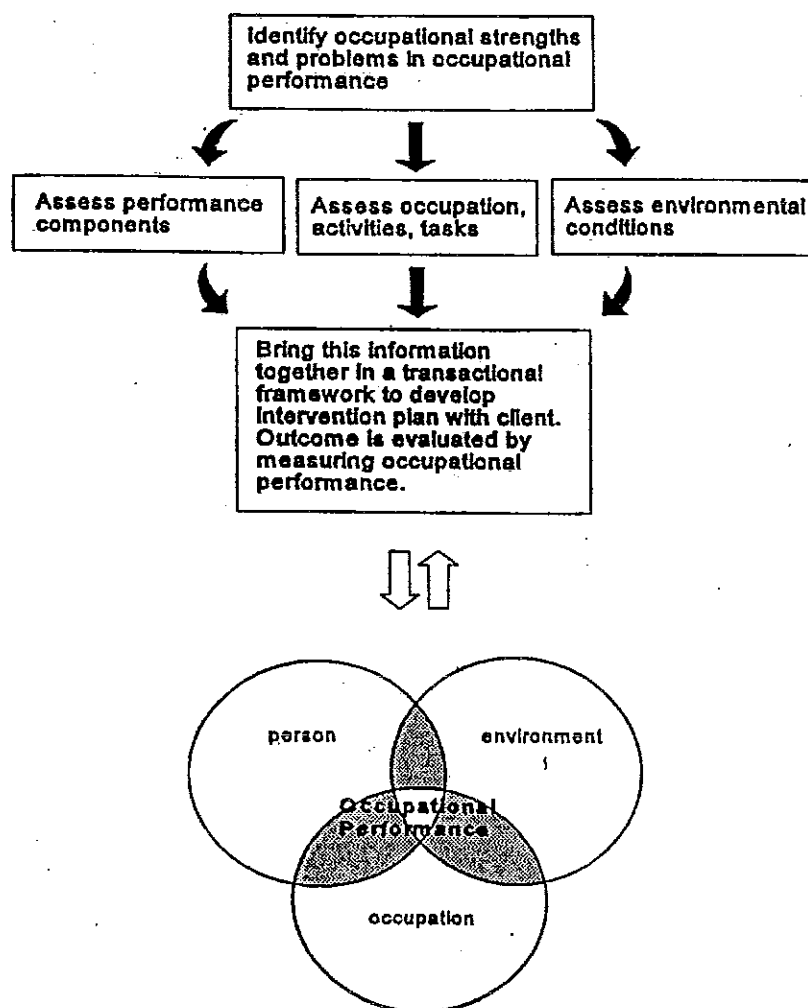


In short, the model can be used to enrich and expand the clinical approach of occupational therapy. For example, instead of treating the person as a single entity in the institution or home, the person can be considered in multiple ways: as an individual, as part of a family living in a particular community of a province or state. At each of these levels, the person's occupational performance can be appraised as influenced by cultural, economic, institutional, physical and social environmental factors as well as by personal occupational factors. This increases the number and scope of enabling interventions and strategies that can be elicited to assist the client. For example, occupational therapists could work

with government at a provincial level to identify factors which impede access to employment for persons with persistent mental illness, and develop policy initiatives to change these constraints. Finally, measurement tools can now be chosen from a broader and well developed menu that reflects the richness of its multi-disciplinary roots (Letts et al., 1994).

Figure 4 illustrates how the person-environment-occupation model of occupational performance can be used in the occupational therapy process. Occupational therapy intervention would begin with the client and therapist together identifying the client's occupational strengths and the issue/problems in occupational perfor-

Figure 4
Occupational Therapy: The Person-Environment-Occupation Model of Occupational Performance



mance that are the reason for seeking services. This identification can be done through a number of methods including unstructured interview, semi-structured interview (e.g. Canadian Occupational Performance Measure), or standardized assessment (e.g. Occupational Performance History Interview). Following that, assessment of performance components, environmental conditions and occupations which may be influencing the occupational performance issue(s) is completed. This information helps to determine the focus and level of intervention. Outcomes after therapy intervention are measured in terms of changes in occupational performance.

EXAMPLE OF THE MODEL IN PRACTICE

A clinical example illustrates the potential ways that the Person-Environment-Occupation Model of occupational performance can be used as a basis for assessment and intervention.

Shirley [not her real name] is a 78 year old woman who has been living on her own for the past four years in a subsidized seniors' apartment building in a suburb of a large city. She has been widowed for over 10 years and has one son who is married and lives nearby. Shirley came to Canada from England over 45 years ago with her husband. She and her family have lived in the same city since then. She worked as a store clerk and as a developer in a photography studio, but most of her productive time was spent as a homemaker.

Shirley has had diabetes for the past 15 years. Ten years ago, she began to experience visual problems, and is now considered legally blind with a visual acuity of 20/100. She has cataracts and glaucoma and wears glasses all of the time; however, she still finds it difficult to see things clearly, and can only read large print. She often bumps into furniture in her apartment when she is walking around it.

Two years ago, Shirley had her right leg amputated below the knee and her left big toe removed. She has been fitted with a below-knee prosthesis, which she wears most of the time. She

walks in her apartment with a cane, and uses a walker outside the apartment. She also has a manual wheelchair for long distances.

Since the amputation, Shirley has been unable to take a bath or shower independently, despite the presence of grab bars. She received services after her amputation for this personal care, but this was discontinued this year because she "wasn't sick." Without her prosthesis, her balance is too poor to enable her to transfer in and out of the bathtub. She takes sponge baths, but is not happy with this.

Currently, Shirley is experiencing problems with a sore on her stump and has been instructed not to wear her prosthesis until it heals. She is using her wheelchair to get around her apartment. She can make a simple breakfast for herself and has lunch brought by Meals on Wheels. Her son does her grocery shopping and she has a cleaning woman weekly, at her own expense. She is frustrated with the amount of time everything takes and with the fact that she cannot go out in the community unless someone takes her.

Shirley was referred for an occupational therapy assessment and intervention. She had never seen an occupational therapist previously.

Currently, Shirley's needs are not being met by the resources in her environment. To examine the relationship between Shirley and her environment more closely, several assessments might be selected by the occupational therapist. The Environmental Preference Questionnaire (Kaplan, 1977) provides an opportunity to explore needs from the perspective of the types of environments Shirley prefers. Within the intervention, those preferences can guide the establishment or modification of the environment. To explore the current fit between Shirley and her environment, using a more transactional approach, the Person Environment Fit Scale (Coulton, 1979) provides an opportunity to examine fit in a number of areas that are important to Shirley, including family role fit, activity fit, and affiliation/acceptance fit. Issues around Shirley's safety in her apartment could be assessed

using the SAFER tool (Oliver, Blathwayt, Brackley & Tamaki, 1993).

Once the occupational therapist identifies areas where there is a lack of congruence between Shirley's needs and the environment, intervention can focus on improving that fit. The emphasis may focus on improving Shirley's abilities to negotiate existing environmental characteristics. Alternately, intervention could focus on modifying the environment to meet her needs. Modifications may take many forms, including setting up cues for her in the environment to compensate for poor sight, or working with family and community members to establish a social environment appropriate for Shirley. Intervention could also go beyond the level of the individual, for example, negotiating services within the community.

CONCLUSION/SUMMARY

The ideas suggested by the Person-Environment-Occupation Model of occupational performance allow the occupational therapist to acknowledge the complexity of the clinical situation for a client such as Shirley. By focusing on the transaction between the client, his/her occupation and the environment, the therapist can choose from a broad range of interventions from either or both of these sectors. The model recognizes the changing circumstances of these situations, and proposes that such dynamism may require on-going monitoring of interventions as opposed to a time-limited case approach. While there will always be some clinical interactions that can be addressed as single interactions, for example, making a splint or completing a short work assessment, a large component of occupational therapy practice involves complex issues that cannot be dealt with as easily. For these in particular, this model will serve to enhance intervention to benefit the client.

The Person-Environment-Occupation Model of occupational performance, builds on earlier work in the Occupational Therapy Guidelines for Client-Centred Practice (CAOT, 1991), as well as drawing on concepts from

human ecology. The Person-Environment-Occupation Model is not incompatible with the Occupational Therapy Guidelines, but rather represents a dynamic application of the ideas put forth in the Guidelines. It represents a clinical model which is more transactive and allows the outcome of occupational performance to be clearly identified as the fit between person, environment and occupation. The Person-Environment-Occupation Model places a greater emphasis on the complexity of relationships of people performing occupation within broad environments. This model helps facilitate a shift to an emphasis on occupation from an emphasis on performance components.

It is important to recognize the limitations of the Person-Environment-Occupation Model. Because this Model has recently been developed, an important next step is the application and testing of these ideas in occupational therapy clinical practice and research. Preliminary testing of the model in research, examining environmental factors which affect the participation of children with disabilities in daily activities (Law, 1992), and examining the experiences of persons with persistent mental illness in an affirmative business (Strong, 1995), have indicated that the model is a useful tool both to analyze the presence of occupational dysfunction and to identify factors for occupational therapy intervention. Further research using the model is underway and through such development and testing, the applicability of this model and the need for any modifications to it will become apparent.

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