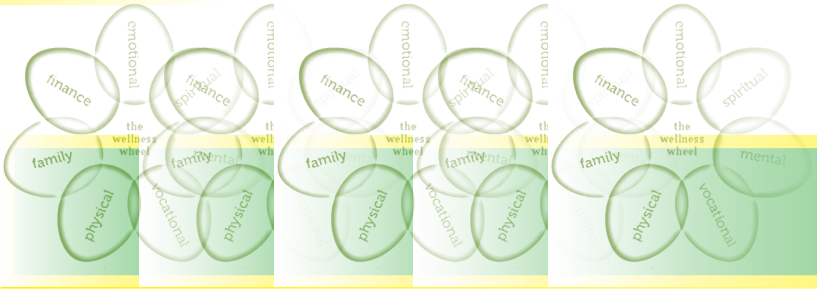
CHAPTER 2

OCCUPATIONAL THERAPY IN PUBLIC HEALTH



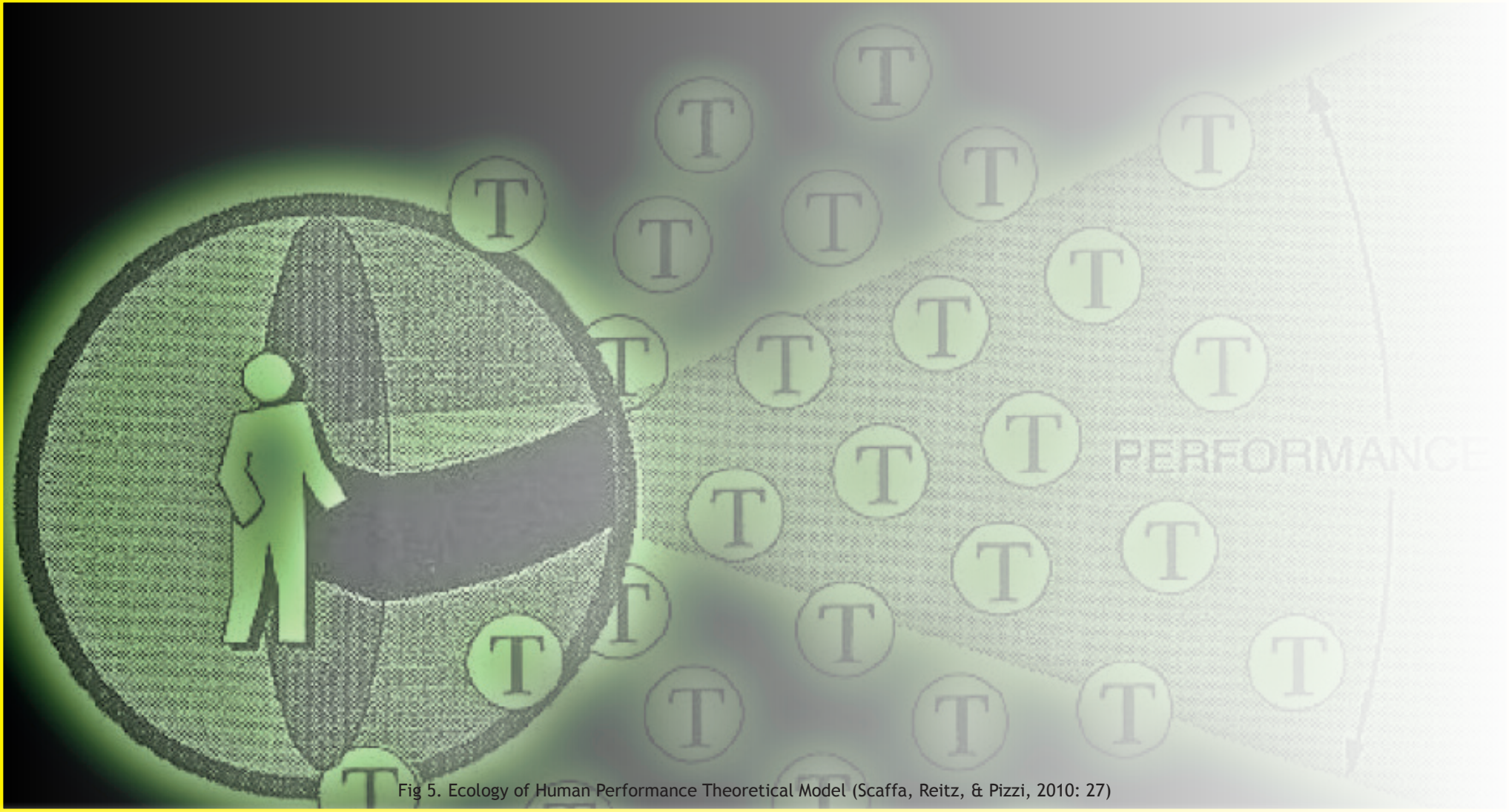


Fig 5. Ecology of Human Performance Theoretical Model (Scaffa, Reitz, & Pizzi, 2010: 27)

Paradigm shift in occupational therapy - From reductionism to systems theory

History of OT: From Moral Treatment to the Paradigm of Professional Induction

During the 18th and 19th century, occupation, in the western world was regarded as an integral part of life and wellbeing; hence the statement by Harold Bell: 'Occupation is the very life of life' (Scaffa, Reitz, & Pizzi, 2010: 6). Although not yet fully recognised as a viable solution within medical circles, this humanitarian approach and use of occupation proved to be quite practical and convenient for treating individuals with mental illness, for example. Through the use of productive, creative, and recreational occupations, those with mental illnesses were integrated into society.

While occupation was used as a somewhat curative measure for the mentally ill and the disabled, in a moralistic sense – it also assumed a preventative role in the conditioning of society in general. (Scaffa, 2001: 23) The principles of moral treatment were compatible with the interests and endeavours of leaders of various social reform movements, such as educational reformers, mental hygienists, and leaders in the arts-and-crafts movement.

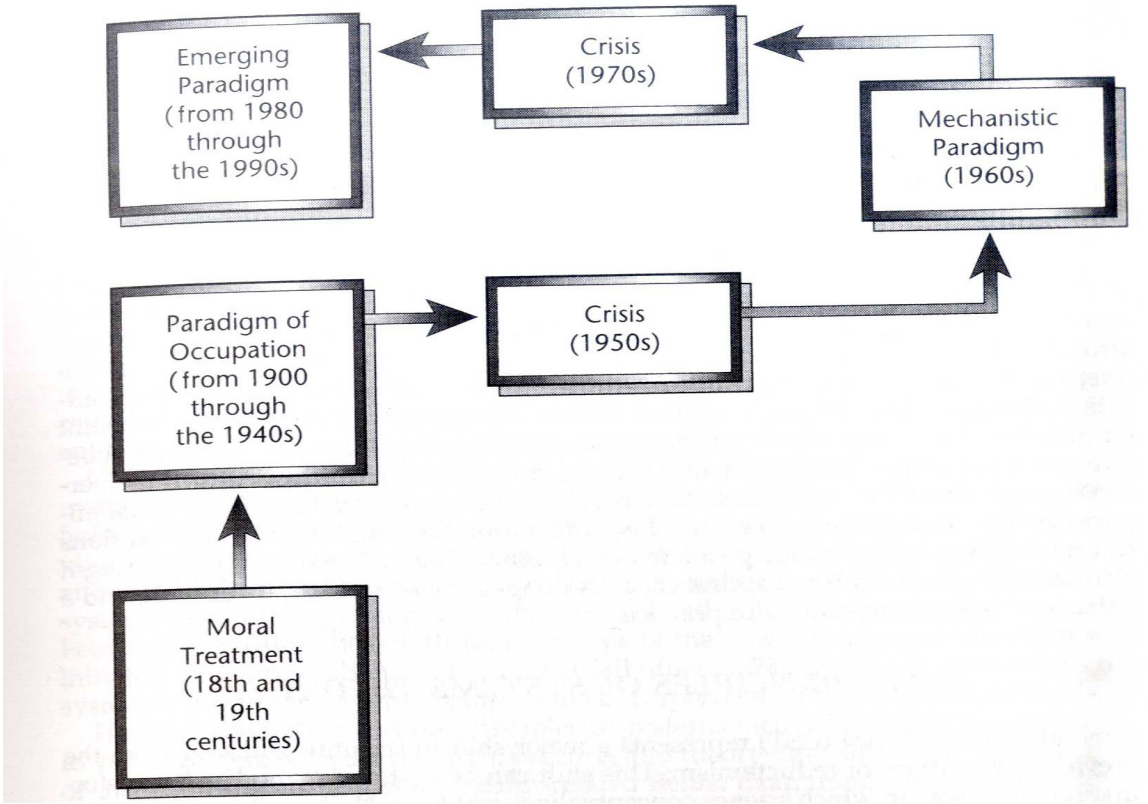


Fig. 6. Paradigm Shifts in Occupational Therapy (Kielhofner, 1997: 48)

Their shared philosophy on the role of occupation in the establishment of social wellbeing, led to greater recognition and eventual professional status being granted to occupation as a therapeutic means within the realm of public health in the 1900s. (Breines, 1986)

Paradigm shift as a result of the 1930's depression: Mechanistic Paradigm

As a result of the economic depression of the 1930s, there was job insecurity among the working class. In order to preserve the profession of occupational therapy, there was a shift in its focus: from being occupationally oriented to being medically inclined and assuming a more scientific character.

This newly attained mechanistic and reductionist identity was further reinforced by the advent of modern technologies in the medical field. As a result Occupational therapy became a summation of purely technical and clinic solutions inspired by the medical model to focus on the inner mechanisms of disease and disability (neurophysiology, anatomy, kinesiology, and psychoanalysis). Subsequently, the holistic and pertinent ideals of occupation as a facilitator of healthy living were extracted from the core determinants of the profession in the 1960s and the 1970s. This led to fragmentation, discontent, and loss of identity among practitioners, as they felt that their profession no longer offered relevant and comprehensive

lifestyle-solutions to society. A review of professional aims and capacities, gave rise to an emerging paradigm which incorporates the principles of the general systems theory (GST). (Scaffa, 2001: 25,26)

Emerging Paradigm: General Systems Theory

It was during the early 1990s that the systems theory gained greater promenance in mainstream occupational therapy. This theoretical orientation is a return to the fundementals of occupational therapy which regard the role of occupation as paramount to the rehabilitation process and the promotion of health and wellness. Elaborating upon the medical model which conceives of health in a rather linear cause-and-effect conceptual framework, the systems theory is more organic in its approach, as it includes factors concerning the environment (physical, socio-economic, cultural, and political), and how these affect people and their respective occupations. The dignostic process in systems theory further evaluates occupational performance within the given environment.

Due to the all-encompasing nature of the emergent systems theory, the practice of occupational therapy is required to assume a multidiciplinary strategy in order to address the many factors influencing health and wellness - thus the occupational therapist must be knowledgeable about a vast spectrum of relevant treatment methods. Through liaison with other memebers of the rehablitation team of professionals among which are nutritionists, physiotherapists, psychologists, pedeatrists, and social workers, to name a few - holistic health and wellness for the client is achieved. (von Bertalanffy, 1968)

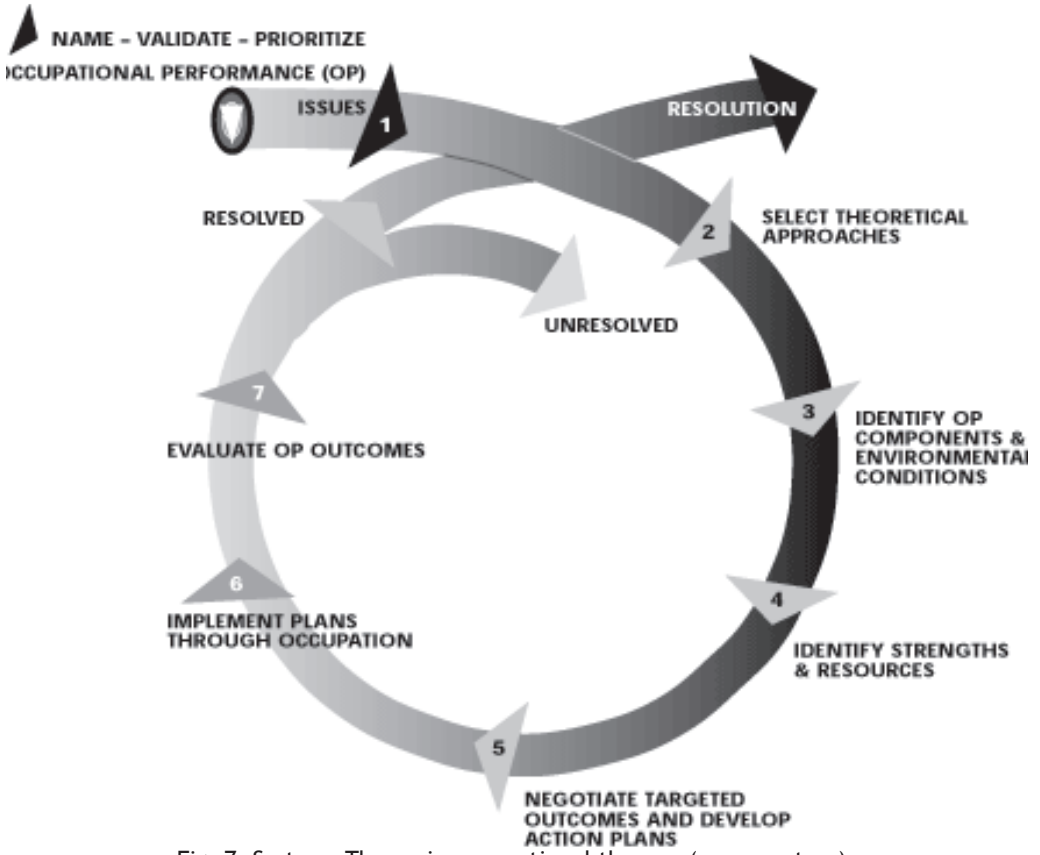


Fig. 7. Systems Theory in occupational therapy (www.caot.ca)

Occupational Therapy, Modernism, and the City

Health and wellness challenges in the urban environment

With the advent of modernism and the development of the modern city, urbanism became a phenomenon which penetrated all spheres of society – through its accommodation of living, working and leisure occupations as integrated constituents of the urban environment. As a result of the industrial revolution, the city became the hub of socio-economic activity, thus giving rise to rapid urbanisation. Rural and nomadic life forms became trivial in the light of the newly discovered grandeur and sophistication of the modern lifestyle (Chipkin, 1993). Due to the demands of this fast paced and oftentimes strenuous lifestyle in a highly competitive economic climate - unhealthy occupations and an unhealthy environment have characterised the city, since the turn of the 20th century. Whereas country living, inherently has the capacity to integrate occupation with a healthy lifestyle through physically and mentally stimulating occupations that merge the arts-and-culture with daily functions, and an astute understanding of nature's spiritual, psychological, medicinal and nutritional benefits is gained (Scaffa, Reitz, & Pizzi, 2010) - city life is unfortunately void of this wholesome balance. Despite the advantages that accompany technological advancements, materialistic and capitalist endeavours tarnish these progressive claims through the promotion of a distorted world view which favours the industrial surge at the expense of maintaining healthy urban environs and facilitating healthy occupations. The city is a breeding ground for all manner of diseases as a result of unhygienic living conditions and air pollution. Moreover, the quality of life is jeopardised by tedious work patterns with nominal rewards, noise, restricted recreational facilities, and nutritional deficiency. In the developing world, the negative effects of the modern city are aggravated by conditions of extreme poverty, unemployment, overcrowding, moral decay, violence, crime, and substance abuse. These poorly managed environments facilitate similarly detrimental occupational activities, giving rise to a general state of illness in society which is manifested in the physical, mental, spiritual and emotional malfunctions among urban citizens. (Chipkin, 1993).

In the current dispensation of occupational therapy it is important to delineate contextual parameters and clearly define the environment within which clients perform their daily activities (Christiansen & Baum. Eds, 2005). An understanding of the environment in its entirety leads to more sensitive interventions rather than normative treatment which often lacks deeper insight into the cause of illness and results in surface level treatment that tends to focus on physical needs while overlooking underlying spiritual, mental, and emotional factors (Scaffa, 2001).

A comprehensive understanding of how the mind-body- and spirit interacts with its given environmental context is vital for the achievement and promotion of holistic wellness. Comprehension of the socio-economic and environmental factors which have bearing on the state of the modern city, lays a contextual foundation upon which the occupational therapist is able to conduct an informed assessment of the needs of the client or urban community. The needs assessment is followed by the application of appropriate theoretical methods of practice. (Scaffa, Reitz, & Pizzi, 2010)

Occupational Therapy
Conceptual Models for Pratice

Rationale

The essence of occupational therapy is based on philosophical reasoning, which regards the role of occupations in man's existence as the very purpose and determining factor of life experiences and the quality thereof. Wellness is therefore a direct reflection of the nature of the relationship which man has with his environment. This relationship is expressed through occupational responses and initiatives. From this philosophical basis, sprouts a number of concepts and constructs which compose the notion of occupational therapy. Among these concepts and constructs, are issues which pertain to the environment, occupation, the person or community, performance, and well-being. The establishment of patterns and trends in the manner in which these ideologies interact, gives rise to guiding principles, which further develop into theoretical frameworks and models for practice. (Mosey, 1981) Theoretical models provide a foundational context for program design, implementation, and evaluation (Scaffa, Reitz, & Pizzi, 2010: 23).

From the knowledge and wisdom gained through the theoretical enquiry, models of practice are adapted and consolidated, so as to address the specific needs of the community (Kielhofner, 2004).

The following investigation looks into four of the most renowned theoretical models. It is intended to reveal the importance of the environment (specifically the built environment in the city and related socio-economic and cultural factors) in terms of determining and influencing occupational activity. The models have been categorised according to their area of focus: The Person-Environment-Occupation-Performance (PEOP) Model, together with the Ecology of Human Performance (EHP) Model, give a holistic overview of the systems theory in occupational therapy, while the Model of Human Occupation (MOHO) and the Occupational Adaptation (OA) Model, on the other hand, illustrate the inner workings and processes within the systems theory. (Scaffa, Reitz, & Pizzi, 2010)

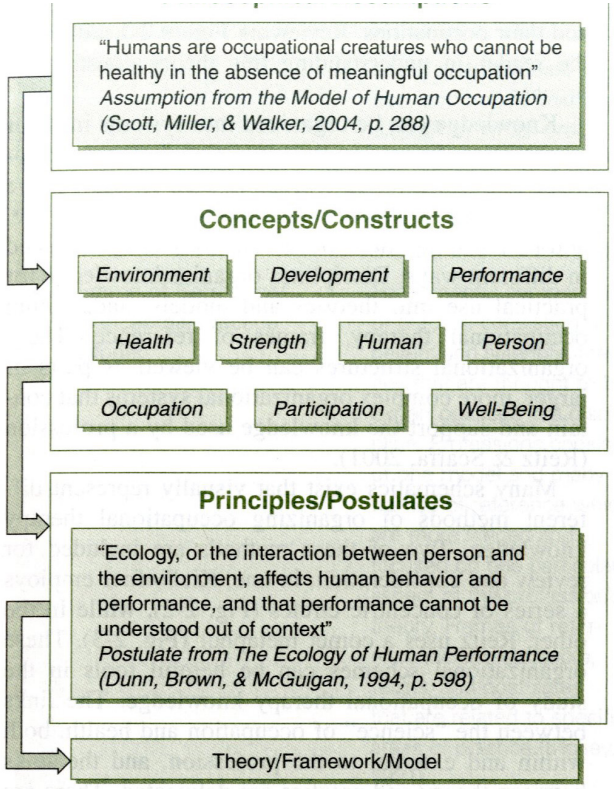


Figure 2-1 Theory construction process.

Fig. 8. Theory construction process
(Scaffa, Reitz, & Pizzi, 2010: 23)

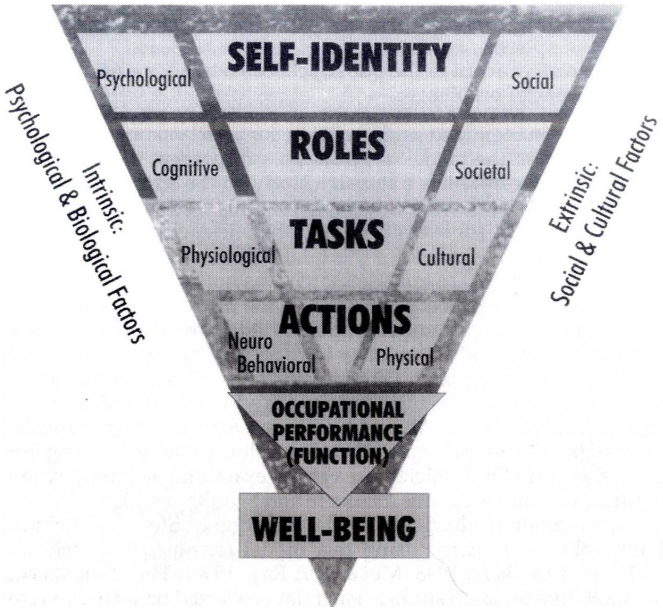


Fig. 9. PEOP former theoretical model (Scaffa, 2001: 68)

Holistic overview of the systems theory in occupational therapy:

Person-Environment-Occupational Performance (PEOP)

This model takes into consideration personal and environmental factors which enable or constrain societal participation in occupations. In the model, health is regarded as an enabler for participation, rather than an outcome (Baum & Christiansen, 2003). It is for this reason that the relationship between the person and the environment should foster a healthy lifestyle and a commendable quality of life, which is subsequently reflected in the performance of occupational roles. An earlier version of the PEOP model assumes a triangular format, which demonstrates a culmination of occupations (according to a hierarchy of behaviour importance and complexity) towards a point of critical evaluation where the performance of these activities determines wellbeing. This very directional and linear process occurs within the midst of influencing intrinsic and extrinsic factors (Scaffa, 2001).

A more recent version of the PEOP model, however, breaks the rigid methodology of its predecessor by suggesting a more organic relationship among the four major constructs (i.e. occupation, performance, person, and environment). These constructs overlap and simultaneously influence each other constantly. Wellbeing and quality of life are therefore determined by the establishment of an efficient and systematic operation of the four parts of the PEOP. (Scaffa, Reitz, & Pizzi, 2010)

The desire to obtain a harmonious existence within one's environment makes the performance of occupations an important focal point and unifying factor which integrates personal intrinsic (spiritual, neurobehavioural, and psychological) qualities with environmental extrinsic realities (culture, values, the built environment, and the natural environment), into a composite and functional system. The ideal balance is struck when all factors contribute towards the establishment of health and wellbeing within the given context.

In the context of a city therefore, it is important that the socio-economic environment, cultural opportunities, and the built environment – support the specific needs of the population groups and individuals which constitute metropolitan society – in order to promote participation in meaningful and enriching occupations and maintain a high standard efficiency and wellbeing (Johnson, 1986). Environmental and, or personal factors which stifle participation in meaningful occupations, disturb the balance of the system and compromise wellbeing (von Bertalanffy, 1968). In order to optimise participation, personal and environmental barriers need to be strategically addressed by the development of occupational therapy programs in liaison with the community. Such programs are intended to supplement the lacking components of the urban system through infrastructure upgrades and social engineering, at a macro scale, and the betterment of individual living conditions at a micro scale. Through an acute awareness of the environment, which is provided by the situational nature of the PEOP model, relevant environmental and behavioural changes can be implemented through the practice of occupational therapy in order to achieve wellness in the urban context.

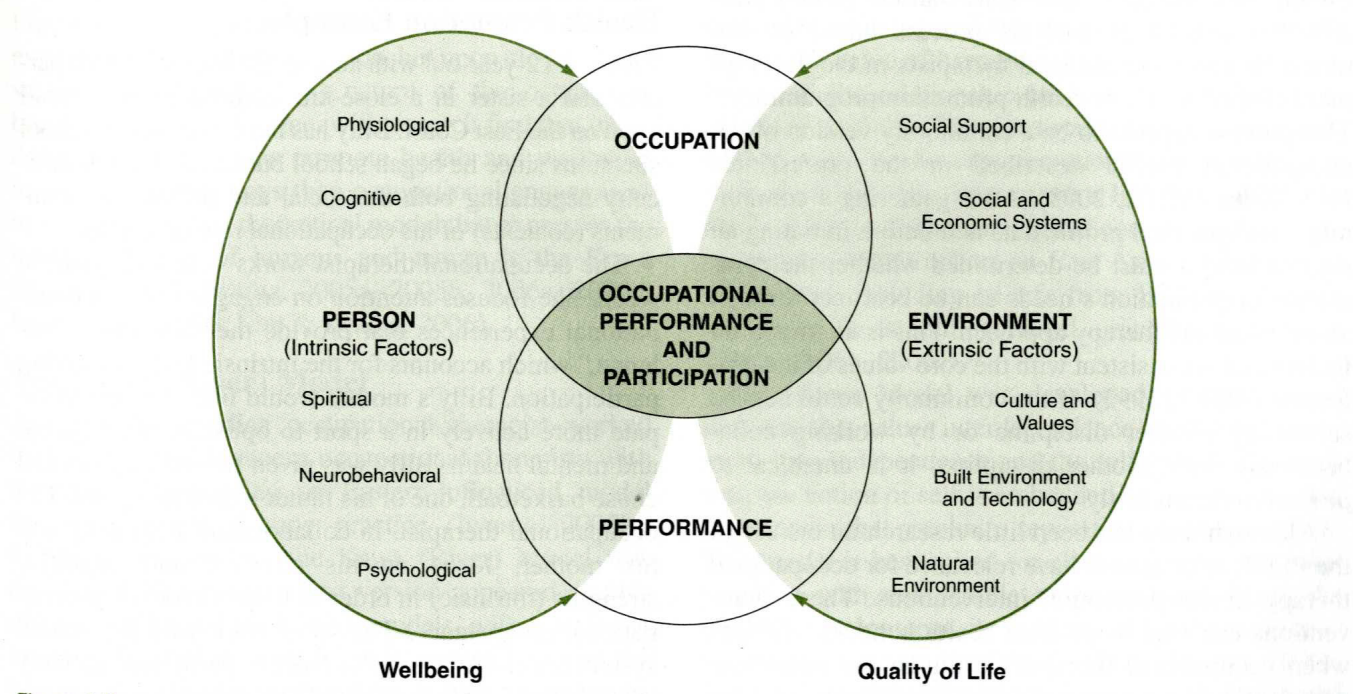


Fig. 10. PEOP latter theoretical model (Scaffa, Reitz, & Pizzi, 2010: 39)

Ecology of Human Performance (EHP)

This model expresses the complexity of context and its impact on occupational performance. The following leading concepts are identified in the writings of Scaffa, Reitz, & Pizzi, (Scaffa, Reitz, & Pizzi, 2010: 26, 27):

- "To understand the occupational performance of humans, and that performance must be studied in context (Dunn, McClain, Brown, & Youngstrom, 2003)"
- "People and their contexts are unique and dynamic (Dunn et al., 2003 p. 224)"
- "Contrived contexts are different from natural contexts (Dunn et al., 2003 p. 224)"

The ability to perform the activities of daily living requires a set of skills and competencies of varying degrees and complexities. This range of occupational abilities needs to be effective within the domain of environmental factors which facilitate its expression. At a rudimentary level these skills ensure survival, while greater sophistication and development enhances comfort and the state of wellness. (Kielhofner, 2002)

Based on the contextualisation of performance – established above – It is clear that the appropriate functionality of the individual, family or community, is directly influenced by resources within the environment. Skills, abilities, performance range, and habitual tasks, are all subject to the confines of context. Regardless of the repertoire of skills and abilities, environmental barriers are overbearing. On the other hand, a deficiency in skills capacity yields the same detrimental implicat ions to wellbeing as do the frustrations of a limiting environment. (Scaffa, Reitz, & Pizzi, 2010) Five possibilities of therapeutic intervention in the case of an imbalance between skills capacity, performance, and the environment, are as follows:

"1. The *Establish/ Restore* level includes traditional interventions that seek to restore function via the improvement of skills and abilities, most often of individuals but increasingly also in families. This type of intervention also could be used at community level." (Scaffa, Reitz, & Pizzi, 2010: 27)

"2. At the *Adapt* level, the therapist adapts 'the contextual features and task-demands to support performance' (Dunn et al., 1994 p. 604)" (Scaffa, Reitz, & Pizzi, 2010: 27)

"3. At the *Alter* level, the therapist changes the actual context rather than adapting to the current one." (Scaffa, Reitz, & Pizzi, 2010: 27)

"4. The *Prevent* level of intervention seeks to 'prevent the occurrence or evolution of maladaptive performance in context' (Dunn et al., 1994, p. 604)." (Scaffa, Reitz, & Pizzi, 2010: 27)

"5. At the *Create* level, the goal is to create 'circumstances that promote more adaptable or complex performance in context' (Dunn et al., 1994, p. 604)." (Scaffa, Reitz, & Pizzi, 2010: 27)

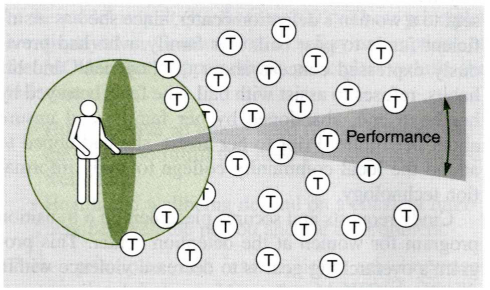


Fig. 11. EHP theoretical model (Scaffa, Reitz, & Pizzi, 2010: 27)

The definitions of these five therapeutic interventions give a clear perspective on the importance of aligning skills and abilities with available resources, or altering the environment accordingly – in order to match the skills content of the population group or individual. This is particularly useful in the contrived context, rather than the natural context, as there are more opportunities for establishment, adaptation, alteration, prevention, and creation. In the same breath it becomes increasingly difficult to manage the constant state of change which is characteristic of contrived settings, while maintaining a healthy balance between occupation and the environment. The key principle is to acknowledge the role of human and environmental agency in effecting change towards the achievement of health and wellness goals. Furthermore, the appropriate application of therapeutic interventions (with an exclusive or dual focus on performance or the environment), is required for effectively impacting contrived contexts.

Fig. 12. Skills enhancement in contrived setting (www.kalianna.com.au)

Operation of the systems theory in occupational therapy

Model of Human Occupation (MOHO)

The model of Human Occupation (MOHO) is composed of four stages of development which form the links of a cyclical process.

Input is the influence that environmental factors have on the individual, family, or community. These environmental factors consist of physical and social entities which either facilitate or prohibit the performance of occupations. (Scaffa, Reitz, & Pizzi, 2010: 29)

Throughput is the internal function which culminates in active participation in occupational behaviour. From inner convictions of volition - which pertain to values, emotions, thoughts, and feelings about occupational engagement – the decision is made to opt for certain occupations rather than others. Volition is particularly important in understanding the motivational factors behind occupational trends in society so as to bring persuasion in favour of healthy behaviour change and promote a healthy lifestyle. The spiritual, intellectual, and cultural orientations of an individual or population are critical informants for therapeutic intervention programs. Another function of throughput is habituation. This refers to the establishment of routines and patterns in occupational behaviour. Concerning health promotion – habituation potentially strengthens the resistance of unhealthy occupations, while on the positive side, it brings about stability in the maintenance of healthy behaviour changes. Performance capacity pertains to the ability to competently engage in occupation. Therefore the development of individual, family, or community skills and abilities leads to positive health outputs. (Scaffa, Reitz, & Pizzi, 2010: 29)

Output is the interaction between the person and the environment through the performance of occupations.

Positive outputs lead to the establishment of an occupational identity and occupational competence which in turn leads to a sense of meaning and accomplishment. Negative outputs reflect a distorted occupational identity and a lack of competence, resulting in compromised health and wellbeing. (Scaffa, Reitz, & Pizzi, 2010: 29)

Through *feedback*, appropriate adaptations may be implemented to remedy negative outputs or further enhance positive outputs. (Scaffa, Reitz, & Pizzi, 2010: 29)

The community-based version of the MOHO is useful for understanding the broader societal influences to health and wellness in the urban environment. The process of input, throughput, output, and feedback, is governed by the laws of cosmopolitan and socio-economically based interactions between the urban community and the city (Alers & Crouch. Eds, 2010) Volition at this scale, is therefore informed by a vast spectrum of cultural, ethnic, moral, and political perspectives. Policy is therefore an important unifying and democratic means to consolidate differing ideologies and promote healthy interventions for the wellbeing of all citizens. Occupational therapy programs are therefore obliged to take heed of and question policy frameworks in order to yield the desired outcomes in public health. Infrastructure developments and the equipping of urban citizens through social development initiatives and socio-economic empowerment programs are critical in the cultivation of healthy habituation and performance subsystems

Outputs in this community system consist of a healthy socio-economic environment, in which participation in productive occupations is well facilitated and encouraged, and performance is enhanced. Furthermore the foundational socio-economic provisions serve as a platform for greater expressions of occupational health and wellbeing, in the areas of social, cultural, and recreational life experiences. (Scaffa, Reitz, & Pizzi, 2010)

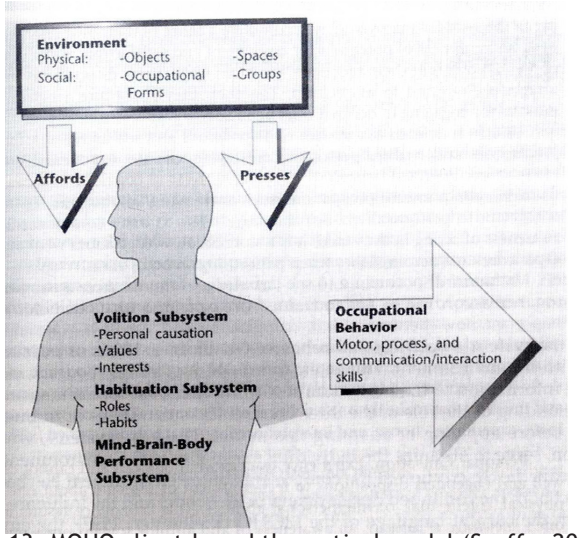


Fig. 13. MOHO client-based theoretical model (Scaffa, 2001:

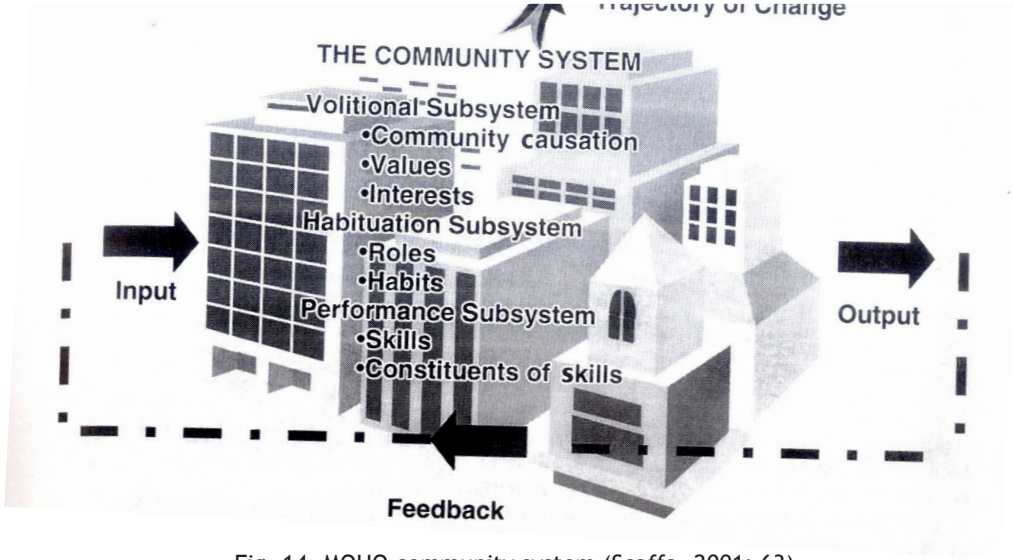


Fig. 14. MOHO community system (Scaffa, 2001: 63)

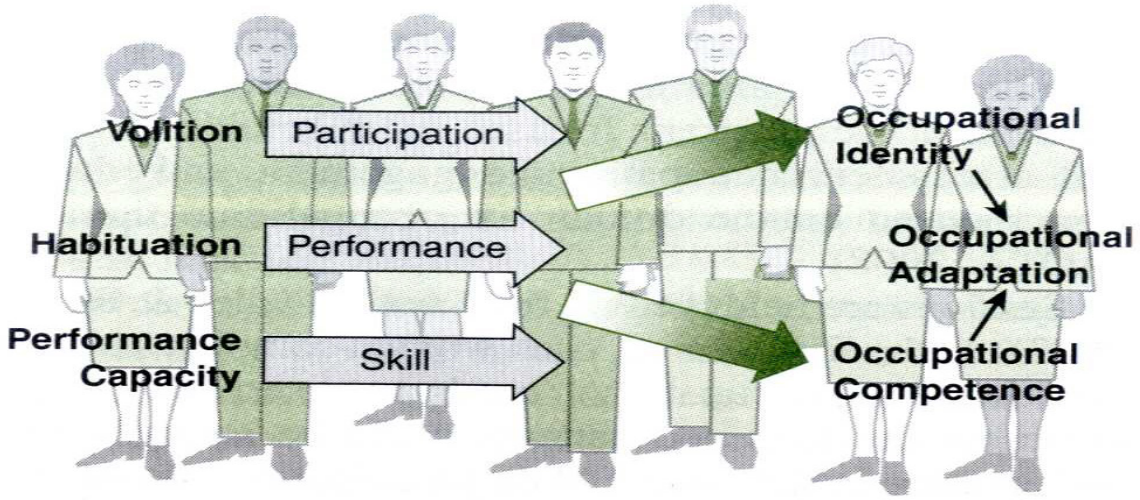


Fig. 15. MOHO community-based theoretical model (Scaffa, Reitz, & Pizzi, 2010: 30)

Occupational Adaptation (OA)

The Occupational Adaptation (OA) model is informed by the cyclical processes of the Model of Human Occupation (MOHO). The function of adaptation is a response to feedback on occupational behavioural outputs, as depicted in the MOHO. The process of adaptation performs a transitional function between cycles of interaction between the individual, family, or community, and the environmental context. Developments in the modes of adaptation ensure a better quality of life. (Christiansen & Baum. Eds, 2005)

According to the World Health Organisation (WHO), health promotion is the "process of enabling people to increase control over, and to improve their health." (Scaffa, Reitz, & Pizzi, 2010: 35) This statement acknowledges the inherent desire for people to master their health. The process of mastery requires the capacity to adapt occupation to the demands of the environment. The schematic of occupational adaptation process demonstrates precisely the interchanges involved in this process. The portion of the diagram on the left represents the individual's desire for mastery; the portion on the right represents the environments demand for mastery, and the middle portion represents interaction of these two forces, resulting in occupational adaptation. (Scaffa, Reitz, & Pizzi, 2010: 33)

As a means to draw closer to the ideal occupational adaptation scenario, there needs to be satisfaction of both environmental and personal desires for mastery. Further modification of one's adaptive capacity or the environment's capacity to facilitate occupation may lead to the supplementation of shortcomings in environmental resources or personal adaptive skills and abilities, respectively. (Scaffa, 2001)

In order to achieve sustainable adaptation in the urban context, the individual or population group must develop an independent adaptive capacity, which is anchored on preventative health occupations as a matter of lifestyle, rather than a remedy (Scaffa, Reitz, & Pizzi, 2010: 34).

With the limitations presented by the urban built and social environment, however, adaptation is not easily achievable through the sole transformation of the community. More health-sensitive environments are needed to streamline the adaptation process. Such environments are sympathetic to the needs of the community, especially in the context of cities in the developing world where socio-economic conditions are desperate.

By alleviating the press for mastery, occupational challenges, and occupational role expectations – through empowering-environmental-interventions – adaptation and the resultant benefits of social well-being, become accessible for the otherwise disadvantaged and under skilled urban majority. (Scaffa, 2001)

Fig. 16. Desire for mastery: agrarian lifestyle (www.uk.reuters.com)

Fid. 17. Demand for mastery: Modern environmental challenges (www.technewsdaily.com)

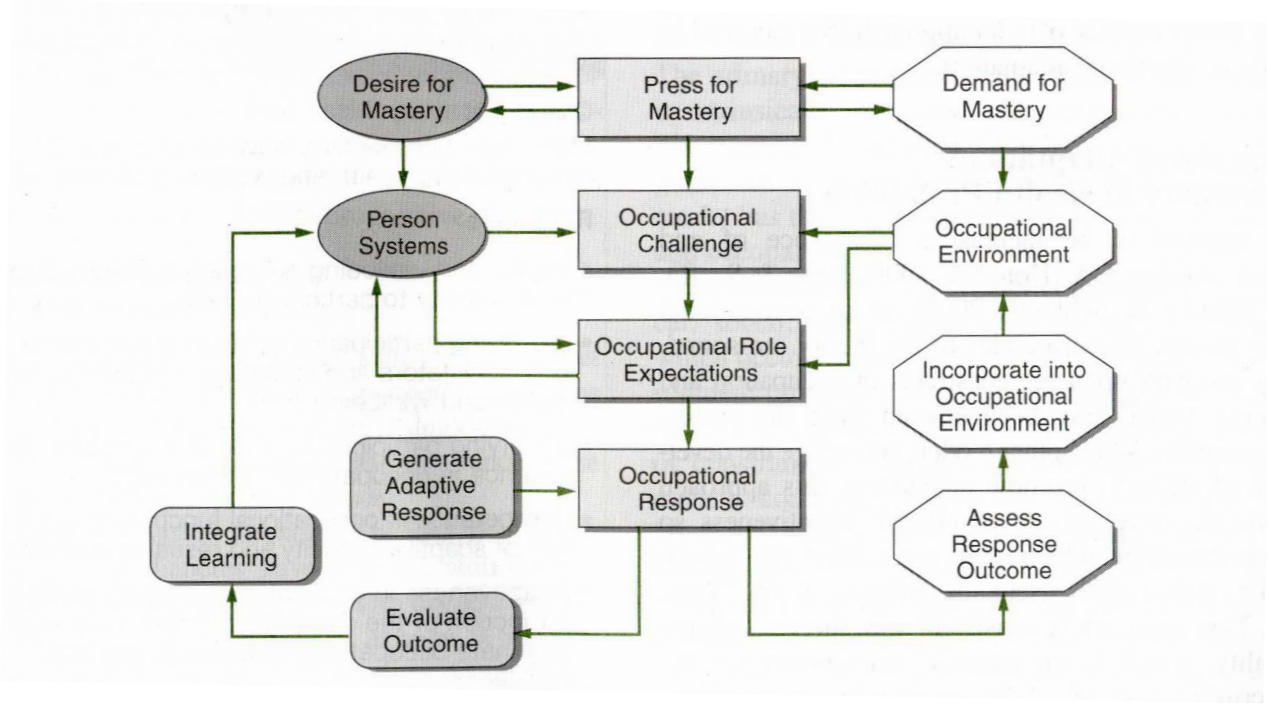


Fig. 18. OA theoretical model (Scaffa, Reitz, & Pizzi, 2010: 33)

Prevention & Health Promotion

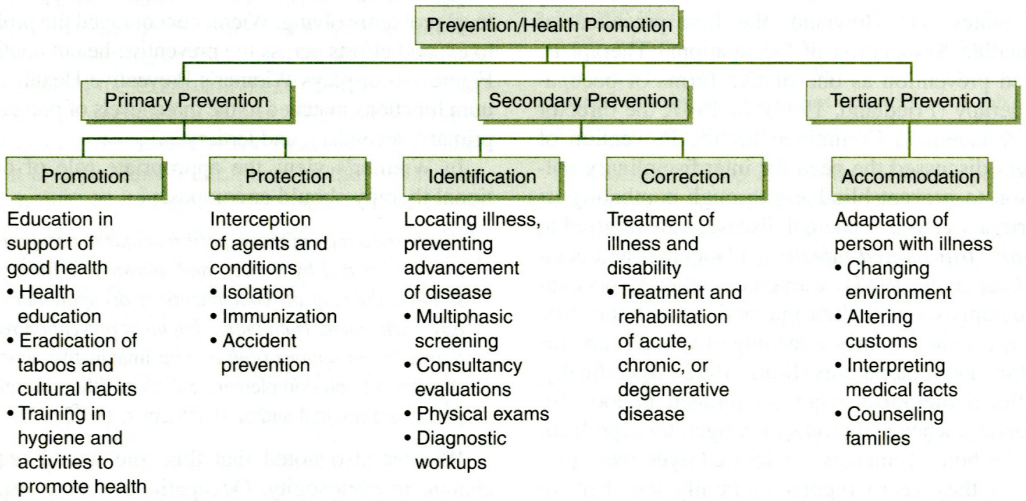


Fig. 19. Weimer's Prevention Health continuum (Scaffa, Reitz, & Pizzi, 2010: 10)

Health education and health promotion are important tools for outreach and community mobilisation for the implementation of occupational therapy practice models in the real world. Through increased awareness among community members regarding lifestyle choices and the health implications of occupational behaviour, latent causal effects which compromise the wellbeing of society, are exposed, and preventative health interventions may be implemented. Depending on the severity of the health problem in a community, prevention assumes one of three degrees of development. (Scaffa, Reitz, & Pizzi, 2010: 10)

The first is *primary prevention*. This is applicable in cases where health has not yet been jeopardised, but there is a threat within the environment due to physical, socio-economic, cultural, and moral factors which negatively affect wellness. Prevention is orientated around health education, eradicating cultural taboos and misconceptions, and rectifying hazardous occupational engagements through initiating positive behaviour changes and protective measures.

The next stage of prevention is *secondary prevention*, which applies to situations where there is an existing malfunction, but there is a possibility to terminate its effect from progressing to long term disability. Here, diagnostic procedures are critical for accurately locating the illness, so that appropriate treatment and rehabilitation measures may be implemented.

The third level of prevention is *tertiary prevention*. It pertains to rehabilitation and educational programs which facilitate the adaptation process, once a malfunction has been established. Through adaptation the identified deficiency is prohibited from hampering functionality and participation in meaningful occupations. Although the figure above focuses on prevention as it pertains to physical health conditions, the principles of primary, secondary, and tertiary prevention may be applied to general social wellbeing; thus advocating for the adaptation of occupational responses to the environment or altering the environment itself, in order to promote and establish a state of holistic occupational wellness through preventative therapeutic interventions. (Christiansen & Baum. Eds, 2005)

In order to maintain preventative health measures at each level of prevention (i.e. primary, secondary, and tertiary), it is important to incorporate health education and health promotion in the prevention process.

The role of health promotion is to constantly motivate and trigger positive responses of volition towards participation in healthy preventative occupations, until sustainable habituation is reached. The Social Learning Theory (SLT), the Health Belief Model (HBM), and the Transtheoretical Model of Behaviour Change (THBC), are important strategies for promoting and establishing healthy behavioural changes. These social education tools are based on psycho-social cognitive capacities and response mechanisms which are informed by intrinsic personal factors and extrinsic environmental influences. (Scaffa, 2001) The figure to the right illustrates the relationship between related constructs of the HBM, SLT, and THBC. The trajectory towards active participation in health enhancing behaviour is composed of the pre-contemplation, contemplation, preparation, and action phases.

Health enhancing behaviours include, among others: testing for HIV/ AIDS, cancer, or diabetes; or committing to a nutrition, fitness, or personal development program. (Scaffa, 2001: 76)

During the pre-contemplation phase, the individual is exposed to prompting messages about embarking on a health enhancing behaviour, be it from the media, close relations, or the like. This consciousness raising phase leads to contemplation about the invitative to action. Contemplation is the process whereby clarity of thought is developed and intentions are emerging; according to perceived threats (susceptibility and severity of health hazards), the removal of barriers which discourage action, and the realisation of benefits. Following the establishment of certain convictions and volition as a result of the contemplation phase, preparation for action reinforces readiness for taking action.

During preparation, there is an evaluation of self efficacy and expected outcomes – so as to establish confidence as the individual embarks on action.

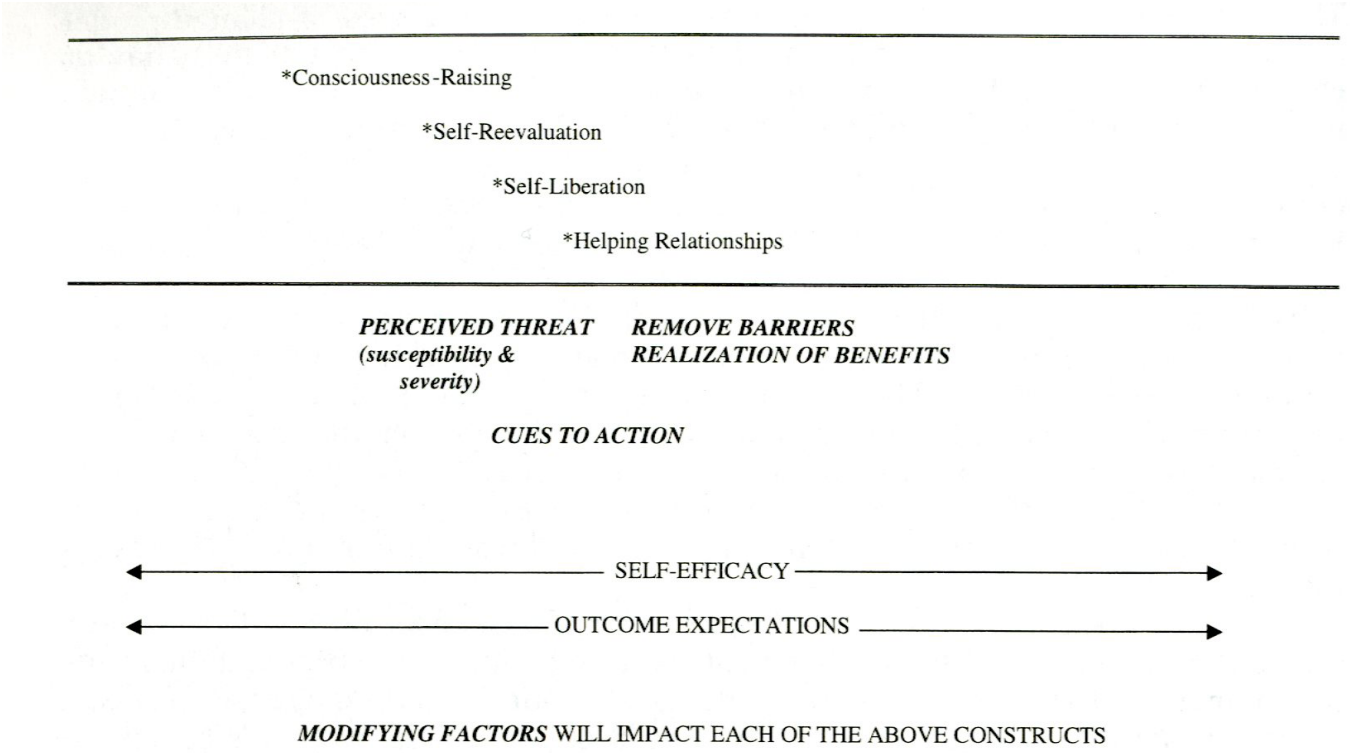


Fig. 20. The relationship between related constructs of the HBM, SLT, & THBC (Scaffa, 2001: 76)

Positive feedback from taking action sows the seed of confidence for subsequent participation in health enhancing occupations, while negative feedback is demoralising. It is therefore important to initiate post-action programs which promote the maintenance of healthy behaviour, or rehabilitate eminent shortcomings through therapeutic occupational adaptation initiatives.

Occupational Therapy Practice & Public Health: Design considerations

Health promotion is intended to cultivate a culture of health consciousness in urban society; while the practice of occupational therapy within the public health domain catalyses and facilitates sustainable wellness programs, which provide comprehensive community-based health interventions. The role of occupational therapists in community-based health care stretches beyond the conventional institutionalism of hospital departments (Chistiansen & Baum. Eds, 2005). According to the systems theory (von Bertalanffy, 1968), a contextual and more holistic approach is required to address the latent socio-economic and environmental factors which affect wellbeing. As such, the following community-based vocational rehabilitation programs – namely the Work Site Program, and the Employment Options Program – provide conceptual avenues which have the potential to enhance the role of occupational therapy within the public health sector. Moreover the occupational dimension of health care and wellbeing is a gateway to mainstreaming health service and promoting healthy lifestyles through collaboration with other medical professions and social development initiatives. (Scaffa, 2001)

The Work Site Program was established in 1997 through collaboration between the occupational therapy and physical therapy departments at the University of Illinois in Chicago (UIC). The Primary objective of this initiative was to provide businesses with affordable and comprehensive treatment for their injured workers. Initially this service was rendered on campus with the provision of services such as prevention, rehabilitation, and pre-employment screening. These services were however, not well administered on campus, so they were outsourced to various industries in the form of on-site industrial rehabilitation satellite programs (Scaffa, 2001: 149-52). The Work Site Program is aimed at preventing injuries and rehabilitating injured workers; in its industrial application however, it remains a specialised service that only industries of a certain economic category can afford. In developing countries it is important to acknowledge these economic challenges and therefore attempt to centralise occupational rehabilitation within the realm of public health. By so doing, a broader spectrum of workers from diverse fields of labour intensive employment is reached. Through health promotion and the availability of other public health servants (physiotherapists, nutritionist, physicians and public health nurses), the occupational therapist is able to co-ordinate injury prevention programs and refer clients for specialist rehabilitation treatment.

Fig. 21. Work Site Program (www.methodsofhealing.com)

The vocational training expertise of the occupational therapist or the services of a specialist vocational placement professional, are not only useful for the reintegration of injured clients back into the work environment, but are also beneficial for greater community development through skills and vocational training. This dual function of community based occupational therapy (i.e. introverted focus on injured hospital patients; and extroverted focus on general public), is an invaluable asset to public health – the potential of which is yet to be realised.

Fig. 22. Education & vocational training for women & children in India (www.sponsorship.odamindia.org)

The Employment Options Program is a vocational rehabilitation program which was also developed in 1997, through a joint partnership between the University of Illinois, Chicago (department of occupational therapy) and the Howard Brown Health Centre.

The program was based on the need to provide rehabilitation for HIV/ AIDS patients at the Howard Brown Health Centre. It was identified that HIV/ AIDS patients who had received combination therapies were more productive in their daily activities and work related duties. Through the work of occupational therapists, vocational specialists, and counsellors - clients were successfully placed into work environments, assisted in disclosing their HIV status, and followed up on their progress (Staffa, 2001: 153-57). While the Work Site Program is an instrument for establishing wellbeing in society, with a particular focus on the physically impaired, the Employment Options Program is aimed at those infected with HIV/ AIDS. Both programs however, are in principle, applicable to various other disadvantaged and vulnerable population groups, such as women and children, youth, the unemployed and mental health patients.

Through vocational therapy, poverty, drug abuse, violence, and crime can be addressed and unhealthy occupations and the consequences thereof can be replaced by productive behaviour change and holistic wellness orientated programs.

Community-based occupational therapy practice, with a multidisciplinary approach on health service (Marcil, 2007); health promotion and health education and vocational training and rehabilitation – are vital components of a holistic community wellness strategy. Architectural facilitation of this conceptual framework, should be driven by the context of the public health facility in which it is incorporated (i.e. a hospital, clinic, or a community health centre), and the environmental context (socio-economic, cultural, and physical environment) of the serviced community. Although contextual applications may slightly differ, the key functions of this concept are consistently based on the role of occupation and vocation as therapeutic means toward achieving holistic health through lifestyle and the promotion of health to both in-patients and the general public – thus achieving the goal of mainstreaming public health service.

Facilities for community-based occupational therapy and a multidisciplinary team need not be over-elaborate, as hospitals, clinics, and community health centres are already equipped with infrastructure for typical medical service spaces, such as wards, consultation rooms, surgery rooms, physiotherapy units, and the like (Marcil, 2007). Additional supplementary facilities may include specialised occupational therapy rooms to accommodate programs for women and children, mental health patients, and the disabled. In order to enhance liaison amongst the multidisciplinary team, administration facilities are needed; and to promote healthy living - nutrition programs, gardens, and recreational facilities could also be additions.

Vocational training and rehabilitation spaces play a fundamental mediating role between the hospital, clinic, or health centre community; and the general public. Through common participation in vocational skills development and rehabilitation programs, in-patients have the opportunity to be reintegrated into society, while public participants gain a health-inclined orientation to their vocational endeavours. A balance of economically productive spaces and educational spaces is ideal for the sustainability of the facility and the empowerment of its users.

Health promotion and health education spaces are intended to promote the initiation and maintenance (Staffa, 2001) of healthy occupational behaviours to in-patients and the general public. According to the vast spectrum and ever-changing methods of health promotion and health education, such spaces should accommodate flexibility of use and incorporate modern technologies for greater efficiency and relevance. Media centres, libraries, knowledge production, and open air spaces, are possibilities for the facilitation of health promotion and education.

Due to the socio-economic conditions of urban environments in developing countries, it is of utmost importance that a comprehensive analysis of the user group is done, and provisions are made to ensure the accessibility of the facility to its intended user group. (Alers & Crouch. Eds, 2010)

Fig. 23. Occupational Therapy & Health Promotion Facilities (www.medinamemorial.org)

Hillbrow Health Precinct intervention

The incorporation of an Occupational Therapy and Vocational Rehabilitation Wellness Centre within the Hillbrow Health Precinct in Johannesburg is an initiative which seeks to mitigate the gap between health care service, soicio-economic development, and improved quality of life in the area – as a means of achieving holistic wellness. The four theoretical models of occupational therapy practice, discussed above, provide a comprehensive systems theory approach, which is useful for the evaluation of occupational wellbeing and the quality of life within the Hillbrow community. The holistic overview of the systems theory – demonstrated by the PEOP and the EHP practice models – is useful for the description and evaluation of the current state of the Hillbrow environment in terms of social, economic, cultural and infrastructural provisions. An understanding of this environmental influence on current occupational behaviour, beit healthy or unhealthy, is paramount to the proposal of any intervention to the existing context. From an architectural point of view, the underlying socio-economic and cultural factors are key informants to program development and conceptual planning. Given the existing urban fabric and medical resource base in the form of the Health Precinct, social transformation and the establishment of healthy lifestyles among Hillbrow citizens, is an initiative which requires the introspective devises (i.e. volition, habituation, and performance subsystems) of the MOHO practice model, and the adaptation principles of the OA practice model. Due to the rigid and determinant nature of the built environment and the social practices which it facilitates and promotes – education and awareness are important tools for achieving a paragigm shift. Through empowering the urban community, restoration can be achieved in the relationship between occupational behaviour and lifestyle, and the environment. As a response to the existing environmental structure and medical provisions, preventative health promotion and education are critical agents in the adaptation process in the areas of work, leisure, and personal management. Supplimentary programs and envronmental enhancements within the Health Precinct should be focussed on increasing accessibility to health service through urban and possibly policy reforms, while simultaneously affording amanities to improve the quality of life. This approach to public health is one which centralises health service and draws the community into the realm of conscious healthy living practices through the breaking down of the stigma which follows health and wellbeing, especially concerning sensitive issues such as HIV/AIDS, STI's, poverty, mental disorders, obesity, and mulnutririon. Furthermore, the integration of medical health service and socio-economic development, is a means of outreach into all spheres of life, for the entire hillbrow community, as the precinct becomes a point of contact whereby users are equiped holistically (i.e. intellectually, physically, emotionally and spitirually) in order to impliment sustainable lifestyle changes in their respective social circles.

The community system of the MOHO practice model is a particularly interesting application in the Hillbrow context. In such an urban setting - where cosmopolitan and cultural dynamics are in dialogue with dyre socio-economic and health conditions - a thorough methodology is required to decipher the complex environment and generate appropriate solutions. The logic of the MOHO model, depicts a cyclical understanding which reveals the perpetual and organic processes of the urban matrix, through the conceptual narrative of input, throughput, output, and feedback. Key functions of this model are input and throughput. It is at these points that architectural intervention can have bearing on the occupational output and wellbeing of the community. Creative design, flexible use of space and program should anticipate and fullfill the needs of adaptation according to environmental and occupational changes in the cycle. Input from the Hillbrow urban environment is in the form of social, economic, cultural, and physical influences, which characterise the Johannesburg inner city and cities in developing countries in general – thus making this study of universal relevance while maintaining a stong connection with locality.

Socio-economic influences include: a large population of young people - many of which are unemployed, engagement in altenative economic activities such as crime, prostitution, and informal trade; and the prevalence of HIV/AIDS and related diseases ,and other chronic illnesss such as diabetes and hypertension – which result from unhealthy behavioural and nutritional practices.

The cultural make-up of Hillbrow is a result of transmigration (i.e. the influx of defferent South African tribal populations – namely: Ngunis', Sothos', Tswanas', Pedis', Vendas', and Shangans'), and immigration from continental Africa (i.e. Anglophone communities: Nigerians, Ghanaians, Zambians, and Zimbabweans; Francophone communities: Congolese, Ivorians, Senegalese, Gabonese, Togolese, and Central African Republicans; and Lusophone communities: Angolans, and Mozambiqueans). The built environment on the other hand is composed of dilapidated buildings which are overcrowded, lack basic infructructure, and harbour unhygenic living conditions.

Furthermore, there are shotcomings in safety and security, streetlevel urban design, and the provision of recreational and public spaces. Unlike the predetermined nature of the urban fabric – there are more opportunities to reverse and rehabilitate socio-economic and cultural environmental influences which give rise to an unhealthy occupational identity and competence in Hilbrow. By consciously intervening in the throughput process(i.e. volition, habituation, and performance), at work in the community, through the initiation of social development and health promotion programs – participation in healthy occupations can be significantly enhanced. At the volitional level of the throughput subsystems, the implementation of the Health Belief Model (HBM), the Social Learning Theory (SLT), and the Transtheoretical Behaviour Change Model (THBC) is to encourage participation in meaningful occupations and foster positive behaviour change.

Through awareness campaigns, group learning, the establishment of a unified community, and increased accessibility to health services and social development – the volitional response of community members can be triggered from precontemplation, to contemplation, preperation, and action – according to the conceptual constructs of the HBM, STL, and THBC models. In this multicultured and economically competitive environment, concensus should be reached at a community level regarding best practice in trade and bussiness and general lifestyle and public atticket, which affects the wellbeing of the Hillbrow community. Policy reforms, municipal intervention, and community organisations should take responsibility in establishing common value systems, law inforcement, and the determination of roles and responsibilities among Hillbrow citizens so as to encourage agency within the community to sustain environmental and behavioural changes in society. (expand towards design concept and program development)

Through follow up and sustained contact with the wellness centre, habituation and the development of healthy lifestyle patterns and habits in work, leisure and personal management, can be achieved. This means that the operational program and architecture of the Wellness Centre should be based on routine usage which is harmoniuosly engrafted into the urban culture of Hillbrow citizens (i.e. their work shedules, leisure preferences, and personal management). Habituation goes hand in hand with performance capacity. Therefore cultivation of productive economic activities includes, not only the establishment of consistent income generation, but more importantly, the growth and development of bussiness and enterpreneurship skills and carreer pathing. These performance enhancements have the potential to instil a psychological shift from the survivalist and poverty mentality, to one of self actualisation and economic prosperity.

Through the use of principles learnt in theoretical models of occupational therapy practice, vocational rehabilitation, and prevention-based health promotion (Scaffa, 2001/ 2010) – the conceptual process should be steered towards contextual architectural solutions which demonstrate the impact of community-based occupational therapy health methods within the public health sector. More in depth research through fieldwork, interviews, site documentation, and needs assessment – will be explored in the following chapters, and thus lead towards deriving architectural solutions which address eminent socio-economic, health, and lifestyle needs.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