Occupational Therapy in the Promotion of Health and the Prevention of Disease and Disability

Introduction

The purpose of this paper is to describe occupational therapy’s contribution in the areas of health promotion and prevention and is intended for internal and external audiences. The American Occupational Therapy Association (AOTA) supports and promotes involvement of occupational therapists and occupational therapy assistants in the development and provision of health promotion and disease or disability prevention programs and services.

It is important to frame the discussion of occupational therapy’s role in health promotion and disease or disability prevention by defining these terms as they are used in this paper. The World Health Organization (WHO) provides the following definition in the Ottawa Charter for Health Promotion:

*Health promotion* is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental, and social well-being, an individual or group must be able to identify and realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy lifestyles to well-being. (WHO, 1986, italics added)

Trentham and Cockburn (2005) expand on this definition by stating that

Health promotion is equally and essentially concerned with creating the conditions necessary for health at individual, structural, social, and environmental levels through an understanding of the determinants of health: peace, shelter, education, food, income, a stable ecosystem, sustainable resources, *social justice*, and equity. (p. 441, italics added)

For the past two decades, the U.S. Department of Health and Human Services (DHHS) has used health promotion and disease prevention objectives to improve the health of the American people. The primary goal of *Healthy People 2010* (DHHS, 1998), the national prevention initiative, is to increase the quality as well as the number of years of healthy life. It emphasizes health status and not just longevity. From an individual perspective, healthy life means a full range of functional capacities across the life span, allowing one to enter into satisfying relationships with others, to work, and to play. From a national perspective, healthy life means a vital, creative, and productive citizenry contributing to thriving communities and a thriving nation.

The second goal of *Healthy People 2010* is to eliminate health disparities (DHHS, 2000). The Health Resources and Services Administration (HRSA) defines health disparities as “population-specific differences in the presence of disease, health outcomes, or access to health care” (HRSA, 2000). Addressing health disparities is consistent with the occupational therapy profession’s official document on nondiscrimination and inclusion, which states “inclusion requires that we ensure not only that everyone is treated fairly and equitably but also that all individuals have the same opportunities to participate in the naturally occurring activities of society” (AOTA, 2004b, p. 668). Population health focuses on *aggregates*, or communities of

Some italicized terms in this statement are defined in the glossary.
people, and the many factors that influence their health. A population health approach strives to identify and reduce health disparities as well as enhance the overall health and well-being of a population (Finlayson & Edwards, 1997).

Health promotion programs and services may target individuals, organizations, communities and populations, and policymakers. The focus of these programs is to

- Prevent or reduce the incidence of illness or disease, accidents, injuries, and disabilities in the population;
- Reduce health disparities among racial and ethnic minorities and other underserved populations;
- Enhance mental health, resiliency, and quality of life;
- Prevent secondary conditions and improve the overall health and well-being of people with chronic conditions or disabilities and their caregivers; and
- Promote healthy living practices, social participation, occupational justice, and healthy communities, with respect for cross-cultural issues and concerns.

A key purpose of health promotion is the prevention of disease and disability in individuals and populations. Prevention is generally categorized into three levels: primary, secondary, and tertiary. **Primary prevention** is defined as education or health promotion strategies designed to help people avoid the onset and reduce the incidence of unhealthy conditions, diseases, or injuries. Primary prevention attempts to identify and eliminate risk factors for disease, injury, and disability. **Secondary prevention** includes early detection and intervention after disease has occurred and is designed to prevent or disrupt the disabling process. **Tertiary prevention** refers to treatment and services designed to arrest the progression of a condition, prevent further disability, and promote social opportunity (Patrick, Richardson, Starks, Rose, & Kinne, 1997).

**Occupational Therapy and Health Promotion**

Healthy People 2010 and the Ottawa Chapter of Health Promotion parallel occupational therapy’s belief that engagement in meaningful occupations supports health and leads to a productive and satisfying life. Wilcock (2006) states that

> Following an occupation-focused health promotion approach to well-being embraces a belief that the potential range of what people can do, be, and strive to become is the primary concern and that health is a by-product. A varied and full occupational lifestyle will coincidentally maintain and improve health and well-being if it enables people to be creative and adventurous physically, mentally, and socially. (p. 315)

According to Christiansen (1999), “Health enables people to pursue the tasks of everyday living that provide them with the life meaning necessary for their well-being” (p. 547).

*The Guide to Occupational Therapy Practice* (Moyers & Dale, 2006) affirms the profession’s participation in disability prevention and health promotion at both the individual and population levels. Occupational therapy services are provided to clients of all age groups, infants through older adults, from a variety of socioeconomic, cultural, and ethnic backgrounds, who possess or who are at risk for impairments, activity limitations, or participation restrictions. According to the *Occupational Therapy Practice Framework* (AOTA, 2002), occupational therapy practitioners2 recognize that health is supported when individuals are able to engage in occupations and activities that allow them to achieve the desired outcome of participation in their chosen environments. This focus on the outcome of “engagement in occupation to support participation” (p. 611) is interwoven through the delivery of service, beginning with the evaluation and continuing through the intervention phase. Health management and maintenance are included within the domain of occupational therapy as an instrumental activity of daily living; health promotion and prevention are listed

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2When the term *occupational therapy practitioner* is used in this document, it refers to both occupational therapists and occupational therapy assistants (AOTA, 2006).
as occupational therapy intervention approaches; and health, wellness, and quality of life are potential outcomes of occupational therapy services (AOTA, 2002).

**Occupations** are purposeful and meaningful daily activities that fill a person’s time and are typically categorized as self-care, work, play or leisure, and rest (AOTA, 1995; Meyer, 1922). **Occupational health and wellness** includes the elements of choice, meaning, balance, satisfaction, opportunity, and self-actualization (Wilcock, 1998). A natural, balanced pattern of occupations is believed to be health enhancing and fulfills both the needs of the individual and the demands of the environment (Kielhofner, 2004; Meyer, 1922). This belief has been supported in studies with well elderly individuals (Clark et al., 1997).

**Occupational imbalance, deprivation, and alienation** are risk factors for health problems in and of themselves. They also may result from or lead to the development of other risk factors, which in turn can result in larger health and social problems. Causes are varied (e.g., unanticipated caregiving responsibilities, losses in employment or housing) and can lead to occupational imbalance, deprivation, and alienation, which can then lead to individual health problems (e.g., stress, sleep disturbance, depression). People who experience these health problems may be at greater risk for suicide; elder, spousal, and child abuse; substance use disorders; and so forth (Wilcock, 1998). Belle et al. (2006) demonstrated that caregivers of people with dementia experienced significant improvement in quality of life and a decrease in depression after intervention that included stress management; strategies for engaging in pleasant events; and teaching of healthy behaviors, communication skills, and problem-solving skills regarding behavior management of care recipients’ difficult behaviors. Occupational therapy practitioners are in a prime position to recognize these occupational health problems and offer interventions to alleviate them through task analysis and modification.

**Role of Occupational Therapy**

There are three critical roles for occupational therapy practitioners in health promotion and disease or disability prevention: to promote healthy lifestyles; to emphasize occupation as an essential element of health promotion strategies; and to provide interventions, not only with individuals but also with populations. It is important that occupational therapy practitioners promote a healthy lifestyle for all individuals and their families, including people with physical, mental, or cognitive impairments. An occupation-focused approach to prevention of illness and disability is defined by Wilcock (2006) as

> The application of medical, behavioral, social, and **occupational science** to prevent physiological, psychological, social, and occupational illness; accidents; and disability; and to prolong quality of life for all people through advocacy and mediation and through occupation-focused programs aimed at enabling people to do, be, and become according to their natural health needs. (p. 282, italics added)

The following are some examples of occupation-based primary prevention intervention that target individuals:

- Musculoskeletal injury prevention and management programs;
- Anger management and conflict resolution training for parents, teachers, and school-aged youth to reduce the incidence of violence;
- Parenting skills training for adolescent mothers;
- Fall prevention programs for community-dwelling seniors.

Examples of secondary prevention carried out by occupational therapy practitioners may include

- Education and training regarding eating habits, activity levels, and prevention of secondary disability subsequent to obesity;
- Education and training on stress management and adaptive coping strategies for people with mood disorders and post traumatic stress disorder;
• Osteoporosis prevention and management classes for individuals recently diagnosed or at high risk for this condition.

Examples of occupation-based tertiary prevention intervention may include

• Transitional or independent-living skills training for people who have mental illness and those with cognitive impairments;
• Groups for older adults with dementia to prevent depression, enhance socialization, and improve quality of life;
• A program of leisure and educational activities for a drop-in center for adults with severe mental illness;
• Stroke support groups.

Occupational therapy practitioners have an opportunity to complement existing health promotion efforts by adding the contribution of occupation to programs developed by experts in health education, nutrition, exercise, and so forth. For example, when working with a person with a lower-extremity amputation due to diabetes, the occupational therapy practitioner may focus on the occupation of meal preparation using foods and preparation methods recommended in the nutritionist’s health promotion program. This enables achievement of the occupational therapy goal of functional independence in the kitchen and reinforces the importance of proper nutrition for the prevention of further disability (Scaffa, 2001).

To be effective, health promotion efforts cannot focus only on intervention at the individual level. Because of the inextricable and reciprocal links between people and their environments, larger groups, organizations, communities, populations, and government policymakers must also be considered for intervention (Law, 1991; Wilcock, 2006). The function of occupational therapy at these levels uses the knowledge and perspective of occupational science in a variety of roles and settings (Baum & Law, 1997; Brownson, 1998).

Organizational-level interventions may include

• Providing consultation to businesses to promote emotional well-being through identification of problems and solutions for balance among work, leisure, and family life;
• Consulting to schools regarding implementation of Americans With Disabilities Act (ADA) requirements;
• Providing education for day care staff regarding normal growth and development, handling behavior problems, and identifying children at risk for developmental delays; and
• Promoting ergonomically correct work stations in schools and offices.

Community or population-level interventions may include

• Consulting on accessible public transportation;
• Consulting with contractors, architects, and city planners regarding accessibility and universal design;
• Implementing a community-wide screening program for depression at nursing homes, assisted-living facilities, and senior centers for the purpose of developing group and individual prevention and intervention programs addressing depression;
• Conducting needs assessments and implementing intervention strategies to reduce health disparities in communities with high rates of disease or injury; intervention strategies may include lifestyle management programs addressing issues such as hypertension, diabetes, and obesity;
• Addressing the health and occupation needs of the homeless population by eliminating barriers and enhancing opportunities for occupational engagement; and
• Training volunteers to function effectively in special needs shelters during disasters.
Governmental or policy-level interventions may include

- Promoting policies that offer affordable, accessible health care to everyone, including people with disabilities;
- Promoting policies that support economic self-sufficiency for all people;
- Supporting full inclusion of children with disabilities in schools and day care programs;
- Lobbying for public funds to support research and program development in areas related to improvement in quality of life for people at risk and those with disabilities; and
- Promoting policies that establish opportunities for rehabilitation in the community for people discharged from inpatient psychiatric programs.

Occupational Therapy’s Contributions

Occupational therapy has an important role in health promotion and disease or disability prevention due to its focus on the health effects of purposeful, productive, and meaningful occupation. It is the profession’s focus and associated knowledge base that is occupational therapy’s contribution to the health and well-being of Americans. Occupational therapy practitioners can

- Evaluate occupational capabilities, values, and performance;
- Provide education regarding occupational role performance and balance;
- Reduce risk factors and symptoms through engagement in occupation;
- Provide skill development training in the context of everyday occupations;
- Provide self-management training to prevent illness and manage health;
- Modify environments for healthy and safe occupational performance;
- Consult and collaborate with health care professionals, organizations, communities, and policymakers regarding the occupational perspective of health promotion and disease or disability prevention;
- Promote the development and maintenance of mental functioning abilities through engagement in productive and meaningful activities and relationships (adapted from DHHS, 1999, p. 4); and
- Provide training in adaptation to change and in coping with adversity to promote mental health (adapted from DHHS, 1999, p. 4).

While recognizing the role of occupational therapy in health promotion and disease and disability prevention, it is important to acknowledge and respect the contributions of other health care professions in this important arena. Occupational therapy practitioners should operate within their scope of practice and training and partner with other health promotion disciplines with specialized expertise such as in the areas of public health, health education, nutrition, and exercise physiology. The roles of the occupational therapist and the occupational therapy assistant in evaluation and intervention in health promotion practice are based on the Guidelines for Supervision, Roles, and Responsibilities During the Delivery of Occupational Therapy Services (AOTA, 2004a). Occupational therapists and occupational therapy assistants possess the basic knowledge to carry out health promotion and interventions to prevent disability and disease. However, this is a very broad area of practice, and practitioners need to continually expand their knowledge in health promotion to be effective and competent members of the team.

As in all other areas of practice, health promotion services should be evidence based. Law, Steinwender, and LeClair (1998) conducted an extensive review of the literature on the relationship between occupation and health. The longitudinal studies that were reviewed found that activity participation had
a significant effect on perceived health. Maintenance of everyday activities, social interactions, and community mobility influenced self-reported quality of life. A long-term benefit attributable to preventive occupational therapy was demonstrated by Clark et al. (2001) when they re-evaluated participants from the Well Elderly Study and found that 90% of therapeutic gain observed following intervention was retained at the 6-month follow-up.

Funding for health promotion programs can come from governmental agencies, foundations, nonprofit organizations, insurance companies, and large corporations, among others. In addition, fee for service is an option. Typically, health promotion and prevention programs do not rely on a single source of funding (Brownson, 1998; Scaffa, 2001).

The following case studies provide examples of the role of occupational therapy in health promotion and prevention of disease and disability.

Case Study: Primary Prevention—Individual Level

A retired husband and wife consult an occupational therapist regarding a home safety assessment for the purpose of remaining in their home as they age.

Assessment: The occupational therapist uses a semi-structured interview format to gather information about the clients’ health, occupational performance, and satisfaction level within the various performance areas, as well as social connectedness and overall life satisfaction. Both the husband and wife are healthy and able to perform daily tasks with a high level of satisfaction. They have a strong social support network and report being very satisfied with their life. The occupational therapist also explores the health history of their parents and learns of a history of Alzheimer’s disease and diabetes. The environment (i.e., home, yard, neighborhood) is assessed regarding accessibility and safety.

The occupational therapist notes that the living area is on three levels (several steps have no railings); rooms and hallways are generally poorly lit; and too much furniture is in each room, leaving narrow or obstructed passageways. The yard has uneven and poorly defined walkways. The couple lives in a residential neighborhood with a distance of 3 miles to shopping. No public transportation is available (even for people with mobility impairments).

Intervention: For immediate consideration, the occupational therapist recommends that the couple install railings by all steps, increase the level of lighting, and decrease the amount of furniture. She works with them to find the best configuration of furniture placement to maximize safety when walking in a room. She recommends that they consider changing the landscape to include clearly defined and level walkways that also will accommodate wheeled mobility, should that ever be needed.

A second set of recommendations includes how to retrofit the house if mobility impairments preclude climbing stairs in the future. Optimal placement of an elevator from the first to the second floor is described. There is not an easy placement of an elevator from the basement to the first floor, so the occupational therapist describes how the occupations now performed in the basement (exercise, laundry, and computer use) may be transferred to the other two floors. The occupational therapist works with the couple on problem solving around transportation, should driving become difficult.

Case Study: Primary Prevention—Organizational Level

A commercial bakery contacts an occupational therapist to assess the various work stations in the bakery and make recommendations for improvements. Management goals are to increase productivity and to decrease sick days and worker compensation claims.

Assessment: The occupational therapist observes the work performed at the various work stations and interviews the workers. She notes body mechanics, repetitive motions, machine design, layout of work
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stations with travel distances, weights lifted and number of lifts per time unit, work speed and load, noise, temperature, air quality, clothing comfort, and length and frequency of rest breaks. Worker-to-worker interaction and interaction among workers, supervisors, and management also are noted. In general, the supervisors and management seem approachable and open to suggestions from the workers.

The occupational therapist finds much lifting and repetitive motion done by the workers. Work stations require much static standing, which contributes to many musculoskeletal problems. Travel distances are long, work speed is rapid, noise level is high in certain parts of the factory, and the temperature is uncomfortably warm.

**Intervention:** The occupational therapist recommends ergonomically designed work stations with decreased amount of static work, time standing, travel, or lifting and improved working positions. Because some jobs involve repetitive motions that may not be avoided, the occupational therapist instructs the managers in the benefits of rest breaks and instructs the workers in stretching exercises. Each worker also is instructed in proper body mechanics at his or her work station. The occupational therapist works with the management on designing a daily schedule that allows for an even workflow to decrease times of high stress. The occupational therapist is asked to return every 6 months to reassess and instruct new employees.

**Case Study: Primary Prevention—Community/Population Level**

An elementary school is planning a new playground, which must be accessible to every child in the school. An occupational therapist is consulted for input on design features that will make the playground aesthetically pleasing, fun, and challenging to use for children of all abilities.

**Assessment:** The occupational therapist surveys the area where the school is planning to locate the playground. He uses the guidelines for play areas developed by the U.S. Access Board (2005) to make sure the minimum requirements are met. He then researches commercially available playground equipment to find equipment that will be fun and challenging to use for all populations in the school as well as encourage interactions among the children.

**Intervention:** The occupational therapist provides the school with a report detailing his recommendations for important features in the playground equipment and the layout of the playground. He is careful to identify all the safety issues and suggests ways to make the playground as safe as possible. The report also includes recommendations for landscaping so that children using wheeled mobility can easily navigate around the playground. The occupational therapist remains on the design team for consultation until the playground is completed.

**Case Study: Primary Prevention—Governmental/Policy Level**

An occupational therapist working in home health has noticed that her elderly clients who no longer drive have no other means of transportation to go grocery shopping, run errands, and visit friends. The occupational therapist contacts the Occupational Science Department at the local university to collaborate on a grant proposal asking for start-up money to research the need for and develop a system of transportation for non-drivers in the community.

**Case Study: Tertiary Prevention—Individual Level**

A rehabilitation unit in a hospital decides to offer health promotion classes to former patients with chronic conditions. An occupational therapy assistant is chosen to lead a class for patients with chronic obstructive pulmonary disease.

**Assessment:** The occupational therapy assistant researches information on the disease, existing programs, and their content and outcomes. She researches optimal group size, length of each session frequency, and number of sessions.
**Intervention:** Using the assessment information, the supervising occupational therapist works with the occupational therapy assistant to develop the health promotion class, including number of participants, length of session, and topics offered. It is decided that a maximum of 15 participants will meet monthly for 1.5 hours for a total of 12 sessions. Topics include self-management, assertive communication, information seeking, and problem-solving skills. The group also will function as a support group.

**Appendix: Glossary**

**Occupational alienation:** “Sense of isolation, powerlessness, frustration, loss of control, and estrangement from society or self as a result of engagement in occupation that does not satisfy inner needs” (Wilcock, 2006, p. 343).

**Occupational deprivation:** “Deprivation of occupational choice and diversity because of circumstances beyond the control of individuals or communities” (Wilcock, 2006, p. 343).

**Occupational imbalance:** “A lack of balance or disproportion of occupation resulting in decreased well-being” (Wilcock, 2006, p. 343).

**Occupational justice:** To experience meaning and enrichment in one’s occupations; to participate in a range of occupations for health and social inclusion; to make choices and share decision-making power in daily life; and to receive equal privileges for diverse participation in occupations (Townsend & Wilcock, 2004).

**Occupational science:** “An interdisciplinary academic discipline in the social and behavioral sciences dedicated to the study of the form, the function, and the meaning of human occupations” (Zemke & Clark, 1996, p. vii).

**Social justice:** “The promotion of social and economic change to increase individual, community, and political awareness, resources, and opportunity for health and well-being” (Wilcock, 2006, p. 344).

**References**


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*Adopted by the Representative Assembly 2007CO146*

This document replaces the 2000 Statement *Occupational Therapy in the Promotion of Health and the Prevention of Disease and Disability.*