



Occupational Therapy for People with Learning Disabilities throughout the Life Cycle: Position Paper

Occupational therapy is a health profession that is therapeutic-rehabilitative-educational in nature. Occupational therapists view the person, his/her family and significant others within the person's environment, as essential and meaningful participants in the development of an appropriate intervention plan. The goal of occupational therapy with people who have learning disabilities is to enable them to participate in the different activities and occupations that they want and/or must perform, in the various environments in which they function (physical, social, familial, cultural and institutional). Involvement in these occupations enables a person to integrate within the community and function and participate in daily life activities as a basis for health, well being, self confidence and quality of life.

The scope of occupational therapists professional knowledge

The academic qualifications of occupational therapists are based on knowledge in the areas of occupational science, medicine, education, social sciences and behavior. Their training includes attaining proficiency in evaluation and intervention methods in various areas of human function. The uniqueness of occupational therapists lies in their ability to analyze the occupations and activities that a person wants/needs to perform, while assessing his/her ability to perform these occupations and activities. Based on these analyses, occupational therapists evaluate the match between a person's abilities and the requirements of the environment in which that person functions.



Occupational therapies perspective on learning disabilities (LD)

The occupational therapy profession **perspective** integrates the theoretical basis of the profession with the current, accepted and common definition of LD in the world together with the official definition of LD in Israel... The prevalent definition is as follows:

“Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical skills. These disorders are intrinsic to the individual and presumed to be due to central nervous dysfunction. They may occur at any stage throughout the life cycle. Although learning disabilities may occur concomitantly with other limiting conditions (e.g., sensory impairment, mental retardation, emotional and social disturbance, psychiatric disorder), or external conditions (such as cultural differences, insufficient or inappropriate instruction), they are not the direct result of those conditions” (NJCLD, 1990/1994).

In concert with the theoretical base of the profession, occupational therapists are aware that learning disabilities differ in their severity and in the way they manifest in different individuals. Likewise, learning disabilities can affect not only academic performance but also the various functions in which the individual is involved. Therefore, occupational therapists assist people with learning disabilities in coping with the effects of the disability on various activities and occupations, such as academic studies, activities of daily living, social participation, play, leisure, work, military service, driving and family life. Moreover, occupational therapists deal with the early identification and prevention of difficulties in functioning and in learning.

The work of occupational therapists among people with learning disabilities is usually carried out as part of a multidisciplinary team, with each profession contributing its unique knowledge and specialization.



The occupational therapy evaluation process among people with learning disabilities

The occupational therapy evaluation is an important component of the multidisciplinary assessment process. The purpose of this evaluation is to identify the areas of strengths and weakness of individuals with learning disabilities in performing various activities and occupations and analyzing the tasks these individuals need to perform. The process of evaluation starts with an interview with the person and /or his/her family in order to gather information about the person's occupational history, wishes and needs, routines and habits, areas of interest and values. This information helps identify the individual's strengths, weaknesses and list of priorities regarding the person's various activities.

The occupational therapist then chooses a standardized assessment tool to assess the underlying causes of the individual's difficulties and the various demands of the environment in which he/she functions. The source of the difficulties may lie in various deficits in sensory, motor, cognitive functions, as well as other areas. The process is completed by integrating the findings of the interview, observations and standardized assessments to form a comprehensive picture of the individual's capacities, the source of his/her difficulties and the manner in which the person copes with the environmental demands.

Intervention of occupational therapy among individuals with learning disabilities

Occupational therapy intervention approaches and methods for individuals with learning disabilities take into account the person him/herself with respect to the his/her abilities and disabilities and learning style, as well as to the environment in which the intervention is carried out. In addition, the



approaches are adapted with respect to the occupations that individuals want and need to perform in the environments in which they function.

On the basis of an analysis of the factors mentioned, occupational therapists suggest an intervention program that focuses on the person, the task to be performed and the environment in which it is to be performed. Occupational therapy intervention may be carried out as direct, individual therapy; through a group process (group therapy); and / or by consulting with the individuals, their families and the other people in their environment (educational teams, work teams, etc.).

The intervention is directed towards adapting the activities and / or the environment of the individual in order to enable him/her to realize his/her full potential.

The occupational therapy evaluation and intervention are carried out in various environments, such as in a clinic and/or in the person's natural environment (at home, class, playground, work place, etc.).

Occupational therapy areas of focus with people with learning disabilities

The occupational therapy evaluation and intervention process for individuals with learning disabilities occurs throughout the life cycle - from early childhood until late adulthood - in a variety of occupational areas:

- **Independence and participation in activities of daily living:**
Evaluating and improving the person's ability to perform self-care (e.g., dressing, eating and personal hygiene), as well as to acquire the habits and skills required for instrumental activities of daily life (IADLs) within the home and community environment (such as the efficient use of means of



communication devices, household management and the use of public transportation or driving).

- **Learning:** Evaluating and improving the individual's ability to cope with the demands of different academic settings through efficient information processing, improving organizational abilities, developing strategies, improving writing skills, and so forth.
- **Military service:**(Note: Military service is obligatory for Israeli youths after they graduate from high school) Preparation, support and guidance for the soldier with learning disabilities in adapting and coping with the demands of the army system (for example, through consulting with the individual in selecting a role that suits his/her abilities, providing strategies for punctuality and organizing his/her personal belongings and military equipment).
- **Work:** Evaluation and improvement of work skills and habits to allow for integration into the work place (e.g., punctuality, work relationships, complying with the rules and norms of the work place), consultation regarding selecting a suitable occupation and recommendations regarding the accessibility of the work environment.
- **Play and leisure:** The evaluation of play skills and leisure patterns, the cultivation and development of leisure opportunities, fostering internal control and satisfaction from play and leisure activities (e.g., guidance regarding adapting activities/clubs to suit the needs and strengths of the individual).
- **Social participation** :Evaluation and development of social skills (e.g., teaching strategies for self-expression and personal empowerment, helping improve interpersonal interactions as well as in identifying and complying with accepted social codes and norms).



Development and improvement of basic skills that constitute a basis for learning

Cognitive skills: Training and improvement of attention, perceptual and memory processes, information processing as well as training and improvement of ability to classify and generalize.

Meta-cognitive skills and self-management functions (Executive Functions):

Enhancing awareness and acquisition of knowledge about the individual's personal learning and thinking processes; knowledge relating to the task's requirements and strategies to cope with different tasks and teaching him/her to apply them. In addition, teaching methods needed to anticipate, plan and use feedback when executing various actions. All of these help individuals improve their ability to solve problems. One point of emphasis of occupational therapists in this sphere is the organization and self-management in time and space, such as planning and maintaining a daily schedule while balancing between the various activities, organization in preparations for travel, managing the routine organization of personal belongings and spatial orientation in different locations.

Development of specific skills necessary for learning: These include the development and improvement of writing skills – developing the ability to write within a reasonable amount of time without investing unnecessary energy, such that the written document is legible and comprehensible. Writing skills are needed for writing tasks that include copying, dictation, preparing homework, and the like. Intervention includes direct intervention as well as recommendations for adaptation to the school's requirements and of various accessories (e.g., type of pencil, notebook, laptop computer and accompanying accessories), as well as teaching keyboarding skills.



Development of compensatory techniques

Occupational therapists are involved in developing compensatory techniques to support the function of individuals with LD, including:

The use of assistive devices and technology - such as a computer, an adapted keyboard, an electronic calendar, time-tables (for use at home, in school and at the work place), a slanted writing board, wide pencil grips and others.

Adaptation of the task - such as reducing the length of written tasks to suit a student's endurance, adapting the time required for learning/working according to the person's attention span, adapting the instructions for an activity and adapting the rules of a game.

Adaptation of the environment - such as structuring and designing the study and work environment in accordance with ergonomic principles, which relate to matching a person's characteristics to the demands of his/her work environment. Examples include adjusting the height of the chair and the table, the type of pen, the placement of the student's seat in the classroom and at the workplace, adjusting his/her computer set up, etc.

Intervention for co-occurring deficits that accompany learning disabilities

Research findings report that in about 50% of the population coping with learning disabilities, there are accompanying deficits such as attention deficit hyperactivity disorder (ADHD), developmental coordination disorder (DCD) and sensory modulation disorder (SMD). In the therapeutic intervention of individuals with learning disabilities, occupational therapists place great importance on simultaneously addressing additional co-occurring deficits.

Attention deficit hyperactive disorder (ADHD) – occupational therapists help by increasing the awareness of individuals and their significant others to



their difficulties in attention and the manner in which this influences their function. Therapists also guide the individual in developing strategies for regulating their level of arousal, modulating their responses and applying self-control to suit the task's requirements. Occupational therapists may also recommend technological adaptations in order to improve function (such as adapted computer programs), the use of assistive devices (such as weighted vests to reduce “out of task”, irrelevant behaviors), and/or assist in the adaptation of the environment or task according the type of attention deficit (for example, adapting an occupation that requires transitioning between many activities and/or minimizing external stimuli).

Developmental coordination disorders (DCD) – occupational therapists assist a person with deficits in performing motor and perceptual-motor skills. Examples include improving postural control, coordination and power regulation. Such difficulties may be manifest in the performance of leisure activities, driving, sports, writing, playing an instrument, as well as in the manipulation of various objects and tools (such as a pen, ruler, eraser, keyboard, lab accessories, eating utensils, operating appliances, etc.). Intervention also focuses on improving movement planning and execution of movements in time and in space.

Deficits in sensory processing and modulation – occupational therapists help a person with deficits in hyper- or hyposensitivity to touch, movement, visual and auditory stimuli and/or smells. These are sometimes expressed as avoidance of certain materials used for crafts or for learning, avoidance of participating in games on the playground, or discomfort in a noisy environment, and so forth. For example, occupational therapists may guide the person, and if needed, his/her family members and significant others in his/her environment, and/or in adapting the environment or the task, such that it will suit the individual's sensory needs



This position paper was written by occupational therapists who are members of the Learning Disabilities Forum of the Israel Society for Occupational Therapy: Dr. Naomi Weintraub, Prof. Sara Rosenblum, Dr. Orit Lahav, Ms. Nirit Erez, Dr. Ruti Traub-Bar-Ilan, Ms. Nirit Lifshitz, Ms. Ayelet Goffer, Dr. Michal de la Vega, Miri Tal-Saban, Rivkah Tzadik and Gila Sharon, in response to the request of the Higher Professional Occupational Therapy Committee to formulate a position paper on this topic.

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