Occupational Therapy Module

Table of Contents

Last reviewed 8-30-17

Introduction

What is Occupational Therapy?

Occupational therapists promote the health and participation of people, organizations, and populations through engagement in occupation. The term occupation refers to daily activities that occupy a person's time. This includes things such as: activities of daily living, rest and sleep, education, work, play, leisure, and social participation.

American Occupational Therapy Association Video

How OT Changes Lives – What OT Can Do For You

Education and Training

Occupational therapists must earn a degree from an accredited occupational therapy graduate program. Training includes didactic coursework and fieldwork training in a variety of settings. The entry-level degree for an occupational therapist is a Master's degree (MA, MS, or MOT) or a doctorate in occupational therapy (OTD).

To be eligible for state licensure, one must obtain an entry-level degree and pass the national board exam for certification in occupational therapy.

Occupational therapists must complete 30 hours of continuing competency hours every two years to maintain their occupational therapy license in Washington State.

Work Settings

Occupational therapists work in a variety of settings, including:

- Hospitals
- Schools
- Outpatient clinics
- Early Intervention Programs
- Inpatient Rehabilitation Facilities
- Home-Based Therapy
- Sub-Acute, Skilled Nursing, and Extended Care Facilities
- Hospice Centers
- Industrial, Office, or other Workplace Environments
- Universities and other Research Centers

History of Occupational Therapy

1900's: First meeting of the National Society for the Promotion of Occupational Therapy (later renamed the American Occupational Therapy Association). First OT practitioners, referred to as reconstruction aides, worked during World War I to rehabilitate disabled soldiers and civilian patients with a focus on helping individuals recapture purpose in their lives.

1923: Education standards for occupational therapists established. Expand practice into mental health.

1930s: Occupational therapy became more closely aligned and identified with organized medicine, which led to the beginning of a more scientific approach.

1940s: Demand for occupational therapist increased during WW2. Occupational therapists expanded their role to support activities of daily living.

1950s: Demand for occupational therapists remains high due to medical advances that extend the lives of individuals with spinal cord injuries, traumatic brain injuries, and amputations.

1960s & 1970s: Occupational therapy services expand into specialized areas of pediatrics and developmental disabilities

1965: Medicare begins covering inpatient occupational therapy services.

1975: The Education of All Handicapped Children Act of 1975 passed and occupational therapists begin working with students with disabilities in schools.

1980s & 1990s: Occupational therapist focus on prevention, quality of life, and maintaining individual's independence.

2004: Reauthorization of the Individuals with Disabilities Act (IDEA) extends the availability of occupational therapy services to all students to promote participation in school, not just those with disabilities.

Today: Occupation is again the main focus of the profession. Occupational therapists work in a wide range of settings with individuals with a variety of conditions, including: prematurity, spina bifida, attention deficit disorder, developmental disabilities, cerebral palsy, sensory processing differences, autism, ADHD, Down syndrome, amputation, stroke, arthritis, burns, head injury, dementia, diabetes, or cardiac conditions.

Occupational Therapy Practice Framework:

The goal of occupational therapy is to help clients achieve health, well-being, and participation in life through engagement in meaningful occupation.

A person engages in purposeful activities out of personal choice and they are valued, these clusters of purposeful activities form occupation

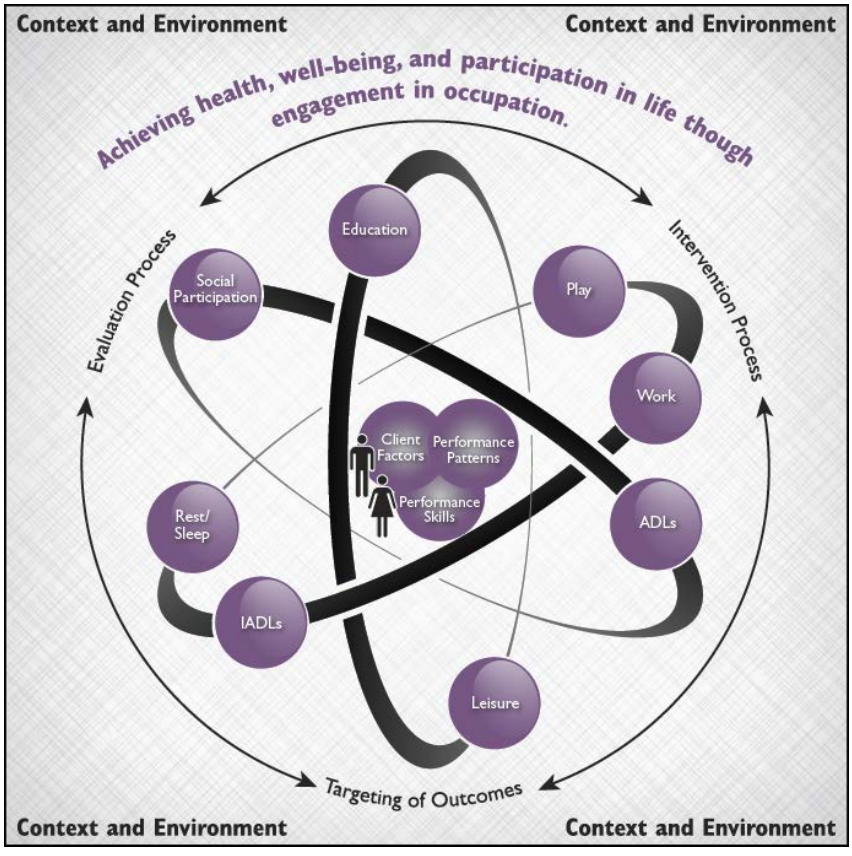
Hinojosa, Kramer, Royeen & Lubeen 2003

These occupations include:

- **Activities of Daily Living (ADLs)**: bathing, dressing, eating, and functional mobility
- **Instrumental Activities of Daily Living (IADLs)**: child rearing, community mobility, financial management, meal preparation, and shopping
- **Rest and Sleep**
- **Education and Work**
- **Play and Leisure**
- **Social Participation**

To assure individuals achieve their occupational goals, occupational therapists carefully consider many factors:

- **Client Factors:** *specific capacities, characteristics, beliefs that reside in an individual or group*
  - Values, Beliefs, and Spirituality
  - Body Functions and Structures
- **Performance Skills:** *goal directed actions that are observable*
  - Motor and Process Skills
  - Social Interaction Skills
- **Performance Patterns:** *used to engage in occupations that support or limit occupational performance*
  - Habits
  - Routines
  - Rituals
  - Roles
- **Context and Environment:** *the larger context in which occupational performance occurs*
  - Cultural, Personal, Temporal, Virtual contexts
  - Physical and Social Environments



Occupational Therapy Practice Framework

OT Practice in Pediatrics

What do pediatric occupational therapists do?

Pediatric occupational therapists work with children of all ages to help assure the child's success performing their occupations in a variety of settings.

Areas of Assessment and Intervention

Pediatric occupational therapists evaluate and provide intervention in the following areas:

- Motor Skill Performance
- Sensory Processing
- Functional Mobility
- Activities of Daily Living/Adaptive Skills
- Visual Perception/Visual Motor Skills
- Social Participation and Behavior
- Feeding
- Play
- Assistive Technology
- Splints/Positioning Devices

Practice Settings

Pediatric occupational therapists may practice in:

- Hospitals
- Neonatal Intensive Care Unit (NICU)
- Inpatient and Outpatient Rehabilitation
- Diagnostic and Follow-Up Clinics
- Early Intervention Programs (B-3 services)
  - Services provided at an early intervention center or in the family's home
- Public Schools- school-based therapy for students age 3-21 years
- Private Clinics
- Community Mental Health Programs
- Home-Based

Assessment Tools

Pediatric occupational therapists evaluate children through observation, direct testing, and information gathered from parents and teachers. Assessment strategies depend on the age of the child, presenting concerns, and the practice setting. Occupational therapists use standardized assessment and structured clinical observations to assess performance.

Observation and Non-Standardized Assessments

- Classroom observation in the school setting to assess educationally relevant adaptive, motor, sensory processing, and social interaction skills.
- Play observation in a clinic or home to assess social interaction, play, and motor skills.
- Mealtime observation in a child's home to assess feeding skills and family dynamics during meals.
- Neuromusculoskeletal evaluation in a hospital or clinic setting to assess muscle tone, joint range of motion, automatic balance responses, posture, gait and physical strength.
- Parent and teacher informed interview conducted informally, using therapist-designed framework, or a standardized questionnaire.

Standardized Assessments

This is a sampling of some of standardized assessments pediatric occupational therapists may use.

Bayley Scales of Infant and Toddler Development, 3rd edition (BSID-III)	A norm-referenced, standardized tool designed to identify children with developmental delays and to provide information for intervention planning for children 1-42 months of age. Includes Cognitive, Language, Motor, Social-Emotional, and Adaptive Behavior Scales.
Beery- Buktenica Developmental Test of Visual Motor Integration (VMI)	Assesses for visual-motor deficits that can lead to learning, neuropsychological, and behavior problems. Can be used with individuals age 2-99. Also includes supplemental Visual Perception and Motor Coordination tests.
Bruininks-Oseretsky Test of Motor Proficiency, 2nd edition (BOT-2)	A standardized test that assesses fine and gross motor skills in children age 4-21 years. Consists of subtests in the following areas: Fine Motor Precision; Fine Motor Integration; Manual Dexterity; Bilateral Coordination; Balance; Running Speed and Agility; Upper-Limb Coordination; and Strength.
Goal Oriented Assessment of Life Skills (GOAL)	An evaluation of functional motor skills within the context of activities of daily living designed for children age 7-17. Consists of seven activities based on real childhood occupations.
Movement Assessment of Infants (MAI)	Systematic evaluation of motor function in infants from birth to one year. Specifically evaluates muscle tone, reflexes, automatic reactions, and volitional movement. Produces risk scores for 4, 6, and 8 month old infants.
Miller Function and Participation Scales (M-FUN)	Assessment of a child's functional performance related to school participation. Specifically tests fine, gross, and visual motor skills. Designed for children age 2-7 years old.
Peabody Developmental Motor Scales – 2nd edition (PDMS-2)	A standardized assessment of fine and gross motor abilities in children age birth to 6 years of age. Subtests include: Reflexes; Stationary; Locomotion; Object Manipulation; Grasping; and Visual-Motor Integration.
Pediatric Evaluation of Disability Inventory (PEDI)	Evaluates a child's functional skill ability and degree of caregiver assistance needed for self-care, mobility, and social function. Designed for children 6 months to 7 years.
School Function Assessment (SFA)	Evaluates a student's performance of functional tasks and activities in the elementary school environment. Specifically assesses student participation, task supports needed, and activity performance. Criterion cut-off scores may be used to establish eligibility for special education services.
Sensory Processing Measure (SPM) and Sensory Processing Measure Preschool (SPM-P)	Provides a comprehensive view of a child's sensory processing difficulties. Three questionnaire forms available Home, Main Classroom, and School Environments for completion by parent, guardian, and/or teacher; age 2-12 years.
Sensory Profile 2 (SP-2)	Used to assess sensory processing patterns in children from birth through age 14 in the context of home, school, and community activities. Separate rating forms for home and school environments, completed by parent, guardian, and/or teacher. Provides cut scores and optional percentiles to describe sensory processing.

Intervention Strategies and Outcomes

Occupational therapists provide services using one or more of the following models:

- Direct service to the child and family
- Consultation with the family, educational team, and/or other service providers
- Monitoring of performance and progress

In each of these intervention models occupational therapists consider the following outcomes:

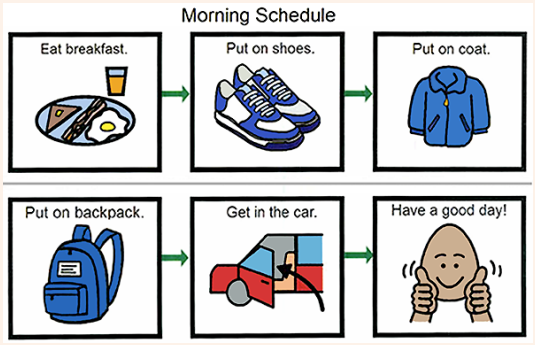
Establish/ Restore	Establish a skill or ability that has not been developed yet or restore a skill or ability that has been lost or impaired.

Example: Working with a child to develop skills in the areas of self-feeding, handwriting, or play. The OT may fabricate specialize equipment for the child to aid in these tasks.

Maintain	Support maintaining the skills that a child has achieved, or regained, so that there is not a decrease in occupational performance.

Example: In a school environment, the occupational therapist develops a daily motor program for a student to carry out under classroom staff supervision. The occupational therapist monitors and modifies the program as needed to optimize the student's occupational performance in the school environment.

Modify	Modification or change to the environment or the task demands to enable a child to more independently engage in a desired occupation.



Examples: Create a quiet, clutter free study space for a student with ADHD to do their homework. Provide a child with autism a visual schedule with pictures illustrating each step of their morning routine.

Prevent	Prevent the occurrence of occupational performance problems for children with and without disabilities.

Example: Develop a program to increase physical activity participation to prevent obesity.

Create or Promote	Provide experiences and environments that support occupational performance.

Examples: An occupational therapist working in an early intervention program collaborates a family to create a developmentally stimulating play area in the home. The

occupational therapist works with the family to create a predictable, consistent bedtime routine.

Interdisciplinary Collaboration

Occupational therapists interact and practice in collaboration families and with a variety of professionals. Occupational therapists utilize a family-centered approach in all assessments and interventions to assure collaborative partnership with a child's parents/guardians. Collaboration with other professionals may include: physicians, nurses, teachers, social workers, speech therapists, physical therapists, nutritionists, and any other personnel working with the child.

OT Contributions to the Interdisciplinary Process

- Occupational therapists may participate in co treatment sessions with SLPs and PTs in a clinic or school setting.
- Occupational therapists may serve on a student's IEP team and work with other team members to develop and support student goals in the school setting.
- Occupational therapists work closely with SLPs, PTs, MDs, nurses and other professionals in rehab settings.
- Occupational therapists provide information about a student's motor, play, and sensory processing skills to help the interdisciplinary team determine a diagnosis.

When should you refer a child for Occupational Therapy?

Reasons You Might Refer A Child For Occupational Therapy:

- Poor sensory regulation and organization
- Delayed gross and/or fine motor skills
- Poor pre-writing and handwriting skills
- Difficulty with motor planning and sequencing activities
- Delayed or limited repertoire of play skills
- Poor oral-motor control for feeding (sucking, chewing, swallowing)
- Delayed or limited self-care skills (i.e., managing clothing fastenings, self-feeding, preparing a simple snack, managing money)
- Limited social skills or behavioral-adaptive skills (i.e., coping skills, establishing friendships, cooperative play with peers)

Case Study – Early Intervention

Meet Sam

Sam is 2 ½ years old with developmental delays in communication, play, and adaptive skills. Sam was referred for OT services 6 months ago. His parents were concerned that Sam's play with toys was limited with a preference for watching wheels spin on his car toys, fearful and cautious participating in activities in the community toddler gym, cries and runs away in response to sudden loud sounds like a vacuum or lawn mower, refuses face washing and tooth brushing, and often tantrums and cries inconsolable during errands in the community.

Occupational Therapy Goals

Long Term Goal	Short Term Objectives
Sam will play with a wider variety of toys	Sam will: ▪ Drive cars along play mat down block ramps and bridges ▪ Play with play dough; rolling the dough and cutting shapes with cookie cutter ▪ Engage in pretend play with play food and dishes
Sam will participate in a greater variety of motor activities at his toddler gym class	Sam will: ▪ Complete a three part obstacle course with minimal assistance ▪ Climb up a 4-step ladder on a slide with no assist
Sam will tolerate having his teeth brushed and his face washed	Sam will: ▪ Wipe his mouth and face by himself with a damp washcloth after at least one meal ▪ Bring a tooth brush to his mouth and teeth himself ▪ Bring a vibrating brush/toy to his lips and cheeks
Sam will complete a 30 minute trip to the grocery store without crying or upset	Sam will: ▪ Parents will use anticipatory guidance strategies, such as the grocery store social story, to prepare for the errand ▪ Sam will sit in the grocery store cart with a favorite book or toy for at least a 15 minute errand in the store

Intervention:

Sam receives weekly occupational therapy services to address his play skills, sensory processing differences and emotional regulation. Therapy is play-based with an emphasis on expanding play skills and interests and improving body awareness and motor planning. The occupational therapist works with Sam's parents to develop strategies to help Sam manage sensory experiences such as loud noises, teeth brushing, and face washing.

Outcome:

After six months of occupational therapy, Sam is exhibiting a wider range of play interests and is starting to engage in pretend play. His parents report that Sam is less fearful in his toddler gym class and is participating in more and more activities every week. Sam now washes his own face and allows a parent to help brush his teeth. The family has learned strategies to prepare Sam for community outings and Sam is showing increasing ability to manage short errands without tantrums.

Case Study – School Setting

Meet Violet

Violet is a 12 year-old middle school student with a complex medical history. She presents with a global developmental delay and optic nerve atrophy and recently underwent spinal fusion surgery. Since her surgery, she has decreased range of motion in her right shoulder and vertical nystagmus. As a result, she is using her right arm less than she used to and has difficulty tolerating lying on her back and lying on her stomach.

Goals:

1) Preacademic: When given appropriate positioning and adaptive tools Violet will participate in classroom art projects.
2) Adaptive/Life Skills: When given her spoon with a bite of food Violet will put her spoon in her mouth and remove it on her own.
3) Communication: When given an iPad communication activity Violet will press the desired button on the app.

Intervention:

Occupational therapy services were provided as a combination of direct service for Violet in her classroom and consultation with parents, teacher, classroom staff and other service providers. Examples of intervention strategies:

- Provide functional activities to practice finger isolation to help support communication goals
- Determine appropriate positioning and adaptive tools for Violet to participate in art activities, taking into account vision, motor, and pain limitations
- Trial different types of adaptive bowls and spoons to determine which promotes greatest independence with feeding

- Provide skilled instruction and practice in using a pincer grasp for more efficient self-feeding
- Trial and acquire appropriate positioning equipment such as a wedge to increase comfort while lying on back and stomach.

Case Study – Consultation in the Community

Staff and administrators at the Pacific Science Center in Seattle, Washington requested help from occupational therapists to improve the accessibility of the Center to children with autism and/or sensory processing differences and their families.

Goal:

Adapt the sensory environment and create tools to increase accessibility of the Pacific Science Center to children with autism and/or sensory processing differences and their families.

Intervention:

A team of Occupational Therapy students and faculty mentor developed tools that families and Pacific Science Center staff could use to assure a fun experience that was accessible and not overwhelming for young children with autism or other sensory processing differences. This work included meeting with science center staff, focus groups with parents of children with autism, and informed observations of children with autism in their school setting. As a result social and environmental supports were created for the Pacific Science Center:

- *Adventure Planners:* provide descriptions of exhibits and expected behavior during a visit to the Pacific Science Center
- *Sensory Guide:* describes sensory characteristics of each exhibit to help families plan their visit
- *Picture Schedule*: specifically designed for use at the Pacific Science Center
- *Tips and Tools for Parents*

Resources on Pacific Science Center Website
http://www.pacificsciencecenter.org/Education/Programs/autism-resources

Resources

For more information about occupational therapy

- American Occupational Therapy Association - www.aota.org
- Washington Occupational Therapy Association -www.wota.org

Video: Samples of OT Intervention in Action

How occupational therapy helps with sensory integration issues
https://www.youtube.com/watch?v=4-jqtlwfw5M

Improving Fine Motor Skills with Occupational Therapy
https://www.youtube.com/watch?v=U72EeuYJkrk
(this would also be a good case study)

The following Resources used to create this module

American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd ed.). *American Journal of Occupational Therapy, 68*(Suppl. 1), S1-S48. http://dx.doi.org/10.5014/ajot.2014.682006

Case-Smith, J., & O'Brien, J. C. (2010). *Occupational Therapy for Children*. Maryland Heights, Mo: Mosby/Elsevier.

Crepeau, E.B., Cohn, E.S., & Boyt Schell, B.A. (Eds.). (2008) *Willard & Spackman's Occupational Therapy*. Philadelphia: Lippincott Williams & Wilkins.

Credits and Acknowledgements

The curriculum for the occupational therapy module was developed by:

- Jennifer Leichtman, MS, OTR/L
  Occupational Therapy UW LEND Fellow
  CHDD, University of Washington
- Susan Wendel, MS, OTR/L
  Occupational Therapist
  CHDD, University of Washington
  swendel@uw.edu

Return to UW LEND Modules webpage