
Driving and Community Mobility

The purpose of this paper is to describe occupational therapy's contribution to driving and community mobility to practitioners within the profession and referral sources outside of the occupational therapy profession.

Community mobility, an instrumental activity of daily living (IADL), is defined as "moving self in the community and using public or private transportation, such as driving, or accessing buses, taxi cabs, or other public transportation systems" (American Occupational Therapy Association [AOTA], 2002, p. 620). Community mobility or transportation is essential for independence and access to engagement in other everyday life activities (occupations). Community mobility, specifically driving, contributes to quality of life (U.S. Department of Transportation, 2003b), autonomy (Hunt, 1993), fulfillment of life roles (Cox, Fox, & Irwin, 1988), access to leisure pursuits (Cobb & Coughlin, 1997), and engagement in other meaningful activities (Gillins, 1990). Loss of the fundamental role of driving and community mobility in adult life is exemplified by the feelings of loneliness, isolation, and depressive symptoms that often arise when one suddenly loses the ability to drive (Marottoli et al., 1997).

Driving and community mobility are included within the domain of occupational therapy (AOTA, 2002) and in the profession's *Scope of Practice* (AOTA, 2004b). Appendix A illustrates some of the aspects of driving and community mobility within the domain of occupational therapy practice and describes the complexity and influence of this critical IADL.

Service Provision

Populations Served

Occupational therapists and occupational therapy assistants address driving and other aspects of community mobility with clients of all ages. Intervention may address the following:

- Passenger safety by helping individuals access and ride safely in vehicles (e.g., designing mechanisms to assist children with disabilities get on and off the school bus, securing wheelchairs or car seats)
- Community mobility, including walking, biking, and riding as a passenger in a motor vehicle or on mass transit, to enhance independence and prevent injury
- Evaluation, education, and training of persons with learning disabilities, attention disorders, developmental disabilities, and acquired disabilities, such as brain injuries and amputations, in preparation of acquiring a first driver's license
- Evaluation and training of experienced drivers who have impairments or age-related changes that interfere with driving and community mobility
- Exploration of alternative transportation options with older adults and drivers of other ages who must temporarily abstain or retire from driving

- In addition to assisting individuals in engaging in driving and community mobility, occupational therapists and occupational therapy assistants work with communities, agencies, and groups to facilitate successful participation of all individuals. Efforts with community planners, school systems, governmental agencies, aging agencies, transit companies, community businesses, and health care organizations raise awareness of driving and community mobility issues and foster the implementation of alternatives to increase participation throughout the community by all community members.

Knowledge and Skill of Occupational Therapy Practitioners in Driving and Community Mobility

All occupational therapists and occupational therapy assistants possess the education and training necessary to address driving and community mobility as an IADL. Throughout the evaluation and intervention process, all practitioners recognize the impact of clients' aging, disability, or risk factors on driving and community mobility. Through the use of clinical reasoning skills, practitioners use information about client strengths and weaknesses in performance skills, performance patterns, contexts, and client factors to deduce potential difficulties with occupational performance in driving and community mobility.

Some occupational therapy practitioners specialize in driver rehabilitation and community mobility. These occupational therapists and occupational therapy assistants administer assessments specific to the requirements involved in driving and community mobility, including clinical assessments of vision, cognition, motor performance, reaction time, knowledge of traffic rules, and behind-the-wheel assessment of driving skills. They have additional training and expertise that enable them to recommend vehicle modifications and provide driver retraining. Many states require that occupational therapy driver rehabilitation specialists become licensed as professional driving instructors to be able to serve novice drivers or persons whose driver licenses have expired. AOTA asserts that occupational therapists and occupational therapy assistants require additional specialized training in driver rehabilitation prior to working directly in the area of driver assessment and intervention with clients who have health- or aging-related concerns.

Occupational therapists addressing community mobility assess clients as well as their communities to determine the client's ability to access transportation alternatives and utilize available resources and equipment. Individual assessments may include clinical testing similar to those in the area of driver rehabilitation. However, the focus of assessment is to determine the client's ability to access and utilize transportation resources. Assessment of the community context may involve analysis of the community resources available, location of supplemental agencies, accessibility of transportation alternatives, and policy review.

The nature of evaluation and intervention are different based on the role of the occupational therapist and the occupational therapy assistant. Consistent with the AOTA supervision guidelines (AOTA, 2004a), the occupational therapist carries the overall responsibility for the evaluation and intervention process. While the occupational therapist oversees the evaluation process, specific assessments may be delegated to the occupational therapy assistant if the occupational therapy assistant has demonstrated competency in administration of the individual assessment. The occupational therapist may delegate, on an individual client basis, any of the assessments in the driving evaluation, including clinic-based tests of vision, cognition, and motor performance or the behind-the-wheel assessment. The occupational therapist is responsible for interpreting the results of any assessments administered by the occupational therapy assistant and incorporating the results into the analysis of the entire evaluation. The occupational therapist may also delegate to the occupational therapy assistant the responsibility of implementing the intervention in accordance with the occupational therapist's plan and the client's treatment goals (AOTA, 2004a). The *Guidelines for Supervision, Roles, and Responsibilities During the Delivery of Occupational Therapy Services* (AOTA, 2004a) recommends that the occupational therapist and the occupational therapy assistant develop

a collaborative plan for supervision which would be put into action during assessments and the intervention process. The supervision must follow state and federal regulations, as well as the policies of the workplace and the *Occupational Therapy Code of Ethics* (AOTA, 2000).

Both federal and state laws, as well as the activities of key professional organizations, influence delivery of and payment for occupational therapy services related to driving and community mobility. In the United States, the individual receiving services most often pays for driver evaluation and intervention. In general, specialized driver rehabilitation services are not currently considered covered services under Medicare benefits; however, there are a limited but growing number of states in which the Medicare carriers will reimburse for all or part of driver rehabilitation services. The Veterans Administration system provides driver rehabilitation services to veterans at select locations nationwide. State vocational agencies, Medicaid, workers' compensation, and private insurers may cover driver rehabilitation services and vehicle modification. See Appendix B for a summary of external influences on service delivery.

Case Studies

The following case studies illustrate the ways in which occupational therapists and occupational therapy assistants contribute to driving and community mobility in a variety of practice settings.

Rehabilitation Clinical Setting With Client-Centered Goal to Return to Driving

During the occupational therapy evaluation, a 78-year-old gentleman, Mr. Smith, expresses a desire to return to driving. Prior to a mild stroke that resulted in a fall and a right ankle fracture, Mr. Smith lived alone and needed his car for grocery shopping, access to medical appointments, transportation to his favorite fishing location, and visits with friends at the community clubhouse. The occupational therapist identifies residual impairments that are likely to be permanent in ankle mobility, affecting Mr. Smith's driving ability and safety. The occupational therapist communicates her concern about Mr. Smith's driving to the physician and recommends a driving evaluation. Throughout the therapeutic process, the therapist educates Mr. Smith regarding the impact of a right ankle fracture on driving performance safety and the need to participate in a thorough driving evaluation before driving again. Mr. Smith and the occupational therapist collaborate to identify options for alternative transportation until it is determined that Mr. Smith can safely resume driving.

Prior to discharge, the therapist makes a referral for a comprehensive driving evaluation. An occupational therapist who specializes in driver rehabilitation reviews Mr. Smith's discharge information. The occupational therapist performs a comprehensive driving evaluation, discusses various modifications for driving, and evaluates the client's ability to use these modifications in an equipped vehicle. An occupational therapy assistant trains Mr. Smith in the use of a left-foot gas pedal until he is competent, confident, and safe with the new equipment. The occupational therapist writes a prescription for the necessary equipment to be installed by a reputable equipment dealer. After installation, Mr. Smith returns so the occupational therapist can inspect the installation and ensure that Mr. Smith is able to use the equipment as it is installed in his own vehicle.

Specialized Occupational Therapy Driver Rehabilitation With the Novice Driver

An occupational therapist who specializes in driver rehabilitation has a contract with a local school system and receives referrals of young adults with disabilities as they approach driving age. Gary, a 16-year-old male with a diagnosis of attention deficit disorder, has expressed a desire to obtain a driver's license as he and his classmates reach this all-important milestone. An evaluation of his driving potential reveals the following strengths to performing this occupation: a strong determination to learn to drive, good upper and lower extremity coordination, and satisfactory visual and perceptual skills. Barriers include impulsivity, distractibility, and difficulty sustaining mental effort. During the behind-the-wheel evaluation, Gary

demonstrates good beginning basic vehicle control skills but has a tendency to speed and has decreased visual scanning. His driving skills were observed to decrease sharply following approximately 30 minutes of driving. The occupational therapist prescribes a home program of exercises to improve visual scanning and sustained attention and discusses Gary's medication schedule with the physician. Additionally, the occupational therapist provides behind-the-wheel training to learn safe driving skills and improve communication with other road users and reinforces Gary's need to maintain a consistent medication regimen. Concurrently, Gary attends driver education classes at a local driving school as required by the state driver-licensing department. Upon the completion of all state requirements and the successful completion of the driving test, the client is issued his license without restrictions.

Community Mobility for the Adult Client

Mrs. Jones is a 33-year-old woman with a psychiatric disability who is concerned about driving after her medications have been changed. She reports to her physician that the anti-psychotic medications are making her very drowsy and that she got lost several times while driving. Mrs. Jones is referred to occupational therapy for community mobility training. The initial occupational therapy assessment reveals strengths in Mrs. Jones's motor performance, vision, and desire to be independent in moving around her community. Barriers to independence appear to be her impaired time management skills, fluctuating arousal and concentration levels, and periodic confusion. After the occupational therapist collaborates with Mrs. Jones to explore possible alternative modes of transportation, they determine that door-to-door service would be the safest transit for her in her community. The occupational therapist also collaborates with the transit agency regarding sensitivity training for schedulers and drivers. After successfully meeting the comprehensive community mobility goals, Mrs. Jones not only completes her therapy program but also is able to maintain her community involvement by using transportation systems to continue her employment, attend religious activities, and go shopping.

Summary

Attention to driving and community mobility is a growing area of concern due to the implications across the life span, association to occupational engagement, and relevance to other organizational entities (see Appendix B). The skills, knowledge base, and scope of practice of occupational therapy enhanced by additional training in driver rehabilitation place the profession of occupational therapy in the forefront of driving and community mobility services. The focus on injury prevention, engagement in occupation, and the intervention strategies used in driver rehabilitation and community mobility services are consistent with *The Philosophical Base of Occupational Therapy* (AOTA, 1995) and, therefore, warrant attention in all areas of occupational therapy practice.

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APPENDIXES

Appendix A. Domain of Occupational Therapy Specific to Driving and Community Mobility

Areas of Occupation	Community mobility is critical to performance of instrumental activities of daily living, education, work, leisure, and social participation.
Performance Skills (Motor, Process, Communication/ Interaction Skills)	<ul style="list-style-type: none"> • Driving and community mobility require one to possess and execute adequate performance skills. Individuals must use motor skills, including posture, mobility, coordination strength and effort, and energy to maneuver the body through the environment, manipulate equipment, maintain a position, and sustain the activity through completion. • Driving and community mobility require sufficient process skills to draw from knowledge, temporal organization, organization of space and objects, adaptation, and energy while moving through the dynamic, unpredictable environment of the community. • Communication/interaction skills are used as individuals need to exchange information, relate, and physically communicate to move through a community in which other individuals are also mobile.
Performance Patterns (Habits, Routines, Roles)	<p>Driving and community mobility involve performance patterns utilizing habits to operate equipment and routines to travel on an established route. Individuals fulfill the duties and responsibilities of life roles by engaging in community mobility.</p>
Contexts (Cultural, Physical, Social, Personal, Spiritual, Temporal, Virtual)	<p>The context in which driving and community mobility take place is critical in understanding who, what, where, when, how, and why individuals move through the community. The physical context relates to travel in urban or rural settings; on different types of roadways; over a street, sidewalk or path; or using underground, waterway, air, or land travel. The cultural context may dictate who operates an automobile while the social context influences independent versus group travel.</p> <p>An individual's personal context indicates whether travel will be performed as a passenger or operator based on age or socioeconomic status. Temporal context affects community mobility based on the stage of life, time of day, season of year, and duration driving. Recent technologies permit virtual engagement in community mobility through the use of computers and simulators.</p>
Activity Demands	<p>Driving and community mobility have many activity demands consisting of the objects and properties of tools used, space and social demands, sequence and timing, required actions, required body functions, and required body structures.</p>
Client Factors	<p>Individuals use their body functions—mental, sensory (including vision), neuromusculoskeletal, voice, and speech—as well as related body structures, to effectively and safely move about in the community.</p>

Appendix B. External Influences on Occupational Therapy Practice Related to Driving and Community Mobility

Governmental Influences

Federal Government: National Highway Traffic Safety Administration (NHTSA)

NHTSA's mission is driver safety, with funding for programs and research on occupant protection specific to safety belt use, air bags, child passenger safety, graduated licensing, new drivers, vehicle modifications, and impaired driving due to alcohol or illegal drug use. A recent focus on older driver safety has generated programs including a Model Driver Screening and Evaluation Program (U. S. Department of Transportation, 2003a). Reports developed from NHTSA's initiative include *Safe Mobility for Older People* (NHTSA, 1999) and *Safe Mobility for a Maturing Society: Challenges and Opportunities* (U. S. Department of Transportation, 2003b). The latter report states the need to evaluate and improve driving skills, acknowledges the value of driver rehabilitation, and recognizes the contributions of the American Occupational Therapy Association to this field.

State Government: State Licensure Laws

Laws related to driving and community mobility vary by state and jurisdiction with regard to vision standards, medical reporting, legal immunity, and licensure laws. Therefore, occupational therapists and occupational therapy assistants must become knowledgeable of the statutes and guidelines specific to the state or jurisdiction of practice.

Professional Organizations

American Medical Association

- The American Medical Association (AMA) believes that older driver safety is a public health issue and that physicians play an important role in assuring the safety of older drivers (Wang, Kosinski, Schwartzberg, & Shanklin, 2003). The AMA has recently dedicated efforts to a safe driver initiative resulting in a physician training program and several publications.
- The AMA collaborated with aging, driver rehabilitation, and transportation experts nationwide to write guidelines for physician practice related to older drivers (Wang et al., 2003). The book advises a number of alternatives that physicians might pursue, such as referring older drivers to driver rehabilitation specialists.
- On December 7, 1999, the AMA's Council on Ethical and Judicial Affairs adopted a report outlining physicians' ethical obligation to address driving issues with their clients (AMA Council on Ethical and Judicial Affairs, 1999). The report included seven recommendations for physicians to recognize impairments and act on that knowledge when a patient's driving posed a strong threat to public safety.

Association for Driver Rehabilitation Specialists

The Association for Driver Rehabilitation Specialists (ADED) is a multidisciplinary group comprised of occupational therapy practitioners, driver educators, vehicle modification manufacturers and dealers, rehabilitation engineers, physical therapists and kinesiotherapists, and rehabilitation specialists. ADED provides certification for driver rehabilitation specialists (CDRS) by means of a portfolio review and standardized exam. ADED recently released *Best Practice Guidelines* for the CDRS.

American Occupational Therapy Association

The American Occupational Therapy Association (AOTA) provides standard-setting, advocacy, education, and research of the profession of occupational therapy to advance the quality, availability, use, and support of occupational therapy (AOTA, 2005). AOTA has created an Older Driver Initiative to coordinate multiple projects related to awareness and professional training. Projects include the following:

- An evidence-based literature review specific to driving and community mobility
 - Practice guidelines for driver rehabilitation and community mobility for older adults
 - Older Driver Microsite (www.aota.org/olderdriver)
 - Specialty certification in driver rehabilitation and community mobility, targeted for availability in January 2006.
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