
Expanding the Frontiers of Orientation and Mobility for Infants and Toddlers in New Mexico and Utah

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Early intervention services provide very young children, typically aged birth to 3 years, and their families “early and appropriate learning experiences to facilitate the child’s learning and development” in their natural environment (Chen, 2014, p. 3). Teachers of students with visual impairments and certified orientation and mobility (O&M) specialists provide vision-related expertise to families and the early intervention team to address the vision needs of children. These services are integrated with other early intervention services as part of an individualized family service plan (IFSP). This collaboration enhances the quality of services and informs families and early intervention colleagues so they are better prepared to provide adequate recommendations and options for the transition into preschool of young children with visual impairments.

Research has shown that children with visual impairments often experience delays in the development of gross motor skills when compared to their peers who are sighted (Adelson & Fraiberg, 1974; Ferrell, 1998; Troster & Brambring, 1993). Because of the significant role vision plays in sensorimotor development in young children (Rosen, 2010), the lack of visual input is a major contributor to these delays. Vision impairment frequently hinders these children from purposefully reaching out and moving about to investigate and explore their surroundings. “O&M, with its emphasis on movement, actually encompasses all development areas” (Anthony, Bleier, Fazzi, Kish, & Pogrud, 2002, p. 327). The goal of O&M support is to help people with visual impairments develop

the concepts, skills, and confidence necessary to travel and explore safely and independently in a variety of environments. Early O&M support is critical in helping families and other service providers to facilitate purposeful movement and independence in young children with visual impairments.

O&M instructors are trained to teach all age groups; however, many often “lack an understanding of early childhood learning, which makes them uncomfortable with providing services to very young children” (Skellenger & Sapp, 2010, p. 200). There is an increasing recognition of a need for qualified O&M specialists in early intervention. O&M instructors who wish to work in early intervention need to obtain additional training in early childhood development and learn strategies for working with this special population. As the work of O&M specialists changes to include more infants and toddlers, the roles of such specialists will also change (Anthony et al., 2002). Preparing O&M specialists to work appropriately with young children with visual impairments and their families requires “more than a shift from the formal O&M techniques and applications to a developmentally appropriate approach. The latter will demand further research and collaboration within an early childhood spectrum of education for children with vision loss” (Anthony et al., 2002, p. 404).

This report represents the perspectives of two states that have recognized the need for specialized O&M services in their early intervention programs for young children with visual impairments. New Mexico, with a growing early intervention O&M program, has a successful history of providing these services throughout the state. Utah, with a long history of providing early intervention vision services, but relatively new to the challenge of early intervention O&M, and inspired by New Mexico’s success, is striving to provide more support and training for these specialists to work with very young

visually impaired children and their families.

NEW MEXICO: A GROWING PRACTICE

Since 2000, the New Mexico School for the Blind and Visually Impaired (NMSBVI) has been building its early intervention program. It began with one teacher of students with visual impairments who was tasked to provide services to infants and toddlers in a center-based program and has grown to a staff of 20 individuals who provide services throughout the state. Currently, the NMSBVI early intervention O&M program includes three specialists and two staff members who are currently enrolled in the personnel preparation program for O&M at New Mexico State University.

NMSBVI has an early intervention program that is guided by the philosophy that the “best fit” for providing its services is having staff members who know infant and child development and understand the structure of early intervention and Part C of the Individuals with Disabilities Education Act (home visiting, family-centered practices, natural environments, team collaboration). The program began with a grass-roots effort to collaborate with the various early intervention agencies around the state and resulted in integrating vision services with the other early intervention services provided in New Mexico.

As vision staff members began working with very young children, it became apparent that waiting until they were walking and ready to use a white cane was not early enough to refer them for O&M services, since many of the children were not moving about and exploring their home environments. Early intervention teams realized that beginning O&M training early would help overall development and set the stage for exploration and movement. As a result, NMSBVI increased its vision and O&M staff members and began searching for training materials in

vision impairment and best practices for early intervention to help prepare staff members to provide services for this population.

The search led NMSBVI to Utah’s SKI-HI Institute and its Vision Impaired InService in America (VIISA) curriculum (Morgan, 1995). VIISA is a resource-curriculum designed to support providers of vision services to children aged birth to 5 years (Dennison, 2000). The national trainer for the VIISA project from Utah provided on-site instruction at NMSBVI, the start of a long-term collaboration. NMSBVI staff members were required to take the VIISA coursework, and many existing NMSBVI staff members were trained to teach the VIISA coursework to facilitate the school’s own training and to provide training throughout the state to other early intervention agencies.

As an offshoot of their in-state training sessions, NMSBVI staff members began presenting at national conferences in the United States—at the Western Regional Early Intervention Conference, for example, and those of the Association for Education and Rehabilitation of the Blind and Visually Impaired (AER). Staff members from Utah attended the session entitled “O&M New Mexico Style” at the AER conference in Seattle in 2012, beginning Utah’s renewed focus on adding specific O&M services to its early intervention services.

UTAH: A DEVELOPING PRACTICE

O&M specialists are few and far between in Utah. In 2012, virtually none of them had significant experience with very young children. And progress data from the Utah Schools for the Deaf and the Blind’s (USDB) Parent Infant Program for the Blind and Visually Impaired (PIPBVI) revealed significant lags in gross motor development, even among children whose level of disability could not account for such delays. These lags created grave concern among administrators and educators and spurred their desire to

address the deficit. The information PIPBVI staff members received from NMSBVI's AER presentation on O&M for young children, in conjunction with the data indicating need, successfully resulted in additional administrative support for addressing the O&M needs of these children in a more direct way.

The assets that made it possible to include O&M in the PIPBVI program include early intervention vision specialists who were willing to receive additional training, an information technology department willing to support the use of distance technologies (Skype or FaceTime, for example), O&M specialists willing to implement developmentally appropriate practice for very young children, and a sound structure for delivering home-based services across the relatively large and rural state of Utah. In the past two years, PIPBVI and the USDB O&M team have focused on O&M for young children, and qualitative data reveal increased confidence in the O&M process and in implementing motor interventions.

The initial development and coordination of O&M services for young children and their families in PIPBVI focused on four areas: conducting a needs assessment, educating the staff about O&M, developing a referral tool to facilitate the referral process, and educating the O&M staff about Part C service and practices in PIPBVI. One member of the O&M team was designated to work with the PIPBVI administration and staff members to help initiate O&M service coordination for PIPBVI. Since none of the members of the O&M team had a background in early childhood development, the PIPBVI administration taught essential components of early intervention (for instance, Part C processes, principles, and best practices) to the O&M team.

Several in-service training sessions were orchestrated to educate PIPBVI vision staff members about the O&M referral process.

A needs assessment was conducted to piece together a picture of the children and families receiving early intervention vision services. The training and needs assessment led to the development of a tool to guide PIPBVI staff members in making referrals for O&M services. The vision specialist fills out the referral form for each child on his or her caseload whom he or she wants to refer, regardless of the score on the referral instrument. The responding O&M specialist also completes the O&M referral tool for the child being evaluated. The instrument is currently being evaluated, and comparisons of the responses are being reviewed for interobserver reliability. Although early results are promising, more evaluation is needed.

The needs assessment indicated that there are many children and families in PIPBVI who would benefit from O&M services and instruction. Next steps include training and educating the O&M staff members on how to work more confidently with very young children and families, increasing referrals from the PIPBVI vision specialists, and intensifying O&M services for children and families in PIPBVI around the state.

O&M PRACTICE IN EARLY INTERVENTION

Introducing O&M as early as possible supports the independence, body imagery, and ability of a child with vision loss to move purposefully. It allows the child to venture out past his or her "comfort zone." Proficiency in O&M-related skills helps expand the child's world and develop safe travel. The O&M instructor works with the vision specialist to understand the visual function, diagnosis, and challenges the child confronts, then formulates appropriate interventions and best approaches to provide services to each child individually.

Various tools and strategies are included in the services provided. Homemade tools for reaching out and activities incorporating a

variety of textures, movement, and songs are utilized. Movement and interaction are encouraged through the use of toys or objects that emit sound and light or provide tactual stimulation. The use of a switch may promote purposeful movement and set a foundation for a possible communication system. All of these items are useful in expanding the child's repertoire and motivation for exploring the environment.

The inclusion of family members, the early intervention team, and the O&M instructor in intervention is key to the success of the children, since skills and learning environments may be replicated and introduced when the O&M instructor is not present. Since the children may not be able to see the world around them or maneuver within it efficiently, "incidental" learning is provided via planned outings and learning environments for this group of learners. These learning opportunities are modeled for family members so that they can be reinforced naturally during daily routines.

Travel in a variety of environments (libraries, parks, or museums, for example) also reinforces O&M skills and provides opportunities for children to exhibit natural curiosity. These experiences expand a child's skills, including trailing, identifying landmarks, attending to surface changes, climbing stairs, and entering and exiting a variety of doors. On these outings, families meet other families, and this networking helps promote growth in their understanding of their children's diagnoses and the importance of O&M skills.

Some guiding principles of early intervention O&M practice include:

- Believing parents are the experts on their children and should be actively involved in every lesson.
- Including orientation concepts in all lessons. These concepts include locational

and positional concepts, spatial concepts, temporal concepts, safety awareness, and environmental awareness.

- Developing the other senses, including hearing, listening, and tactile skills. Sound localization, discrimination, and echolocation skills, as well as tactile exploration and discrimination, are foundational to developing O&M skills.
- Practicing tolerance to movement and positional changes. A child needs to experience typical movement from birth. These experiences include being carried on the parent's body, participating in age-appropriate movement play and various positional changes (rolling, bouncing on laps, "flying" movements), and experiencing safe movement in space. Early movement will begin to develop sensory integration, balance, strength, and coordination. These experiences develop transitional movements, which are foundational skills for mobility, and provide a great way to bond with a child and gain trust while fostering joy in movement, body confidence, and a willingness to explore.
- Using play stands and defined play spaces to encourage independent movement and orientation. Employing short canes while sitting gives children experience in cane use and teaches them to derive environmental information from them.
- Using active learning strategies to develop purposeful, meaningful movement.
- Introducing a push toy or walker for independent standing and safe walking when children are ready for standing and walking. Using a walker or push toy will give children experience with

independent movement and prepare them for cane use.

FINAL THOUGHTS

With the knowledge that early O&M support is essential in providing the best opportunity for life-long independence and self-determination, Utah and New Mexico are determined to provide these services. O&M support in the early intervention setting assists families in attaining the skills and confidence necessary to help their children become safe, independent travelers.

New Mexico's successful development and implementation of a statewide early intervention O&M program inspired Utah to strive to do the same. New Mexico's efforts have noticeably impacted its children, families, and staff members as children transition to preschool. "There is a significant improvement in overall spatial skills and familiarity with the cane in students who have received O&M services as infants and toddlers. Equally important are the positive, informed attitudes parents take as they learn with their children the advantages that are provided and limitations that may be overcome through early experiences with white canes and with O&M training" (C. Quintana, personal communication, May 9, 2015). Utah hopes to see the fruit of its efforts soon, as it implements and expands its early intervention O&M program.

Utah and New Mexico have recognized the importance of early O&M support in the development of young children with visual impairments and their families. The two states share many early intervention O&M strategies and practices that help support the growth of the children and families they serve, including providing additional early intervention-related training to their staff members to help them work with families comfortably and successfully. As other states take an interest in exploring ways to incorporate O&M into their early intervention infrastruc-

ture, the experiences of New Mexico and Utah may help expand the frontiers of O&M for infants and toddlers in the future.

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Practice Report

Screening for Amblyogenic Factors in a Rural State: Implementing a Statewide Childhood Vision Project

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Wyoming is the least populated state in the United States, with approximately

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582,000 people living in a geographic area of 97,093 square miles. Wyoming's sparsely populated cities and towns struggle to support an optimal level of primary and specialist health care (Gantenbein, Robinson, Wolverton, & Earls, 2011). Limited availability of primary care for children presents a barrier to the provision of screening services for potentially correctable conditions such as amblyopia (Kemper & Clark, 2006). Amblyopia is the most common form of unilateral blindness in children, with an estimated prevalence of 1–5% (Holmes & Clarke, 2006).

To address the need for vision screening services in areas where primary care is limited, the Lions Clubs of Tennessee established a network of lay screeners who were trained to follow a standardized screening protocol (Donahue, Johnson, & Leonard-Martin, 2000). The success of the Tennessee program led the Lions Clubs International Foundation (LCIF) to incorporate vision screening into its Core Four sight preservation initiatives and provide matching funds for Lions Clubs in various states, including Wyoming, to initiate vision screening programs (see Donahue et al., 2006, for a review).

THE PROGRAM

The Wyoming Lions Early Childhood Vision Program (WLECV) provides children aged 6 months to 6 years with free annual vision screening, administered by

knowledge the Wyoming Child Development Centers and Wyoming Lions Clubs for their ongoing assistance with screening services. Rebecca Christensen became a contracted employee of PlusOptix after preliminary drafts of this manuscript were written.