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School of Occupational Therapy

Role of Occupational Therapy for Patients with Visual Deficits

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A Capstone Project Entitled

Role of Occupational Therapy for Patients with Visual Deficits

Submitted to the School of Occupational Therapy at University of Indianapolis in partial fulfillment for the requirements of the Doctor of Occupational Therapy degree.

By

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Abstract

The purpose of the doctoral capstone experience (DCE) at Rehabilitation Hospital of Indiana (RHI) was to enhance clinical skills specifically in vision occupational therapy as well as develop resource documents ensuring complete educational opportunity for patients with visual impairments. A clinical needs assessment was developed to understand how often patient education resources are provided to patients/family, nature of the resources provided, availability of resources, and the overall level of health literacy. To meet the demand, several resources and a resource filing system were developed to create ease for therapists when providing exceptional care to patients. Resources included larger print documents available for low vision patient binders, low vision resources and organizations in the Indianapolis area, vision specific fall prevention information, a home evaluation record sheet for therapist use, and a large print vision occupational therapy advocacy flyer. Therapists at the Rehabilitation Hospital of Indiana (RHI) have access to all electronic copies of the documents as well as printed copies kept in the vision therapy room. Sustainability and carry over was discussed, as my site mentor will be responsible for continuation.

Literature Review

Vision Impairment and Occupation

Estimates suggest there are "3.22 million people in the United States with visual impairment, despite best correction, which is expected to double by the year 2050" (Varma et al., 2016, p. 802). Smallfield, Berger, Hillman, Saltzgaber, Giger, and Kaldenberg (2017) described low vision (LV) as "a visual impairment that results in a decreased ability to perform daily activities despite best correction" (p. 314). LV affects more than 5.5 million older adults in the United States; daily activities, social functioning, and overall quality of life can be altered due to

this condition (Sanders, 2018). Age-related macular degeneration (AMD), glaucoma, diabetic retinopathy, and cataracts are the four main causes of LV in older adults; these conditions can result in progressive and commonly irreversible vision loss that threatens older adults' functional independence level (Liu, Brost, Horton, Kenyon, & Mears, 2013). Persons with LV have difficulty maintaining regular participation in occupations that are important to them; often, the progressive vision loss will force them to lose roles and forfeit occupations all together (Girdler, Packer, & Boldy, 2008; Brown, Goldstein, Chan, Massof, & Ramulu, 2014).

Nearly all occupations, roles, and tasks that older adults participate in everyday life can be affected by impaired vision. Throughout occupations, daily performance reading tasks are the most cited complaint of older adults with LV in the United States due to the continuous use in the majority of activities of daily living and industrial activities of daily living (Baylock, Barstow, Vogtle, & Bennett, 2015; Brown et al, 2014; Smallfield, Clem & Myers, 2013). Personal computers, medication prescriptions, food labels, and household cleaners are a few examples of what individuals might have difficulty reading within a day (Smallfield, Clem & Myers, 2013). Misreading directions or dosages on labels could create a safety hazard and become quite dangerous.

Evidence has shown community and social participation are important to the overall health and well-being of a person (Johnson and Mutchler, 2014). In a study conducted by Rovner and Casten (2002), 70% of participants reported activity loss because of age-related vision loss, and 83% of those participants reported greatly missing the activity. Brown et al., (2014) found similar results when asked about their chief vision complaints, participants reported reading and driving (Brown et al, 2014). Older adults with visual impairments reported higher difficulty attending the movies, religious events, or recreational places than older adults without visual

impairments (Alma et al., 2011). In light of these limitations to participation, older adults my have the desire to dine out with friends, though they fear embarrassment to ask for a ride or the realization they might have difficulty reading the menu (Smallfield et al., 2017). Decreased social opportunities can lead to isolation, loneliness, and depression (Berger, McAteer, Schreier, and Kaldenberg, 2013).

Vision Based Occupational Therapy

Occupational therapy practitioners are increasingly providing interventions to improve the self-management skills by modifying lifestyle and health behaviors to minimize LV's effect on daily life (Richardson et al., 2014). The Centennial Vision of the American Occupational Therapy Association (AOTA; 2007) identifies LV services as an emerging area of practice. Occupational therapy efforts to improve visual performance for those with LV including increasing magnification, size (text or symbols), and lighting levels (Sanders, 2018). For practitioners working with older adults with LV, it's important to consider identifying factors that may clarify a client's willingness to accept or not accept LV interventions; it will provide essential information for intervention planning (Mohler, Neufeld, & Perlmutter, 2015).

Fall prevention. Niihata et al. (2018) reported "30% of community-dwelling older adults over 65 years fall at least once annually, with 5% of falls resulting in fractures and 10% of falls resulting in other serious injury" (p. 2). Various intrinsic, extrinsic, or situational factors can lead to a fall. Niihata et al. (2018) found that one of the most important intrinsic factors contributing to the fall risk is vision impairment. Similarly, Baylock (2018) stated that older adults with LV are twice as likely to fall as older adults without vision loss. Assessing individuals with visual impairments and following with ADL modification are important fall prevention interventions (Niihata et al., 2018). Fall prevention interventions and modifications designed specifically for

older adults with LV are limited; available strategies often require clients to rely on the ability to view demonstrations or read printed or electronic handouts (Crews, Chou, Stevens, & Saadine, 2016).

Health literacy. As previously stated, one of the most impacted occupation-based task is reading (Brown et al., 2014). Functional health literacy is the ability of a person to acquire health knowledge by locating and using information in documents, deciphering numbers, and completing calculations (Warren, DeClaro, & Dreer, 2016). It is a skill dependent and influenced by intrinsic and extrinsic variables; vision being a huge factor (Warren, DeClaro, & Dreer, 2016). Variables such as educational attainment, profession, socioeconomic status, culture, age, innate intelligence, primary language, and cognitive deficits are also mentioned. Jaffee et al. (2016) mentioned that, "because insufficient vision may interfere with health literacy assessments, the full impact of low health literacy among older patients with impaired vision is unknown" (p. 136). Warren DeClaro, and Dreer (2016) investigated whether older adults with LV with macular degeneration displayed lower functional health literacy than older adults without LV by administering the Test of Functional Health Literacy in Adults (TOFHLA). The group with LV had lower TOFHLA scores with increased time noted to complete the test; of the LV participants in this study, 70% had been to college and read on a daily basis, but they still had lower TOFHLA scores than their peers without LV (Warren, DeClaro, & Dreer, 2016). Researchers provide multiple changes to simple health resources to improve availability and health literacy for visually impaired patients, all in which occupational therapists can implement in intervention for everyday living.

Theoretical Basis

The occupational adaptation model is driven by clients becoming adaptive to regain function (Schultz & Schkade, 1992). Occupational therapy with a focus in visual rehabilitation can utilize this model to assess a person's ability to engage in and perform occupations with mastery. Their adaptive capacity and demand for change can create improved function. There are internal and external factors occurring with the person that could influence their ability to adapt to their environment if they are viewed as barriers (Schultz & Schkade, 1992). Intrinsic factors include cognitive, sensorimotor, and psychosocial systems, while external factors include physical, social, and cultural influences that effect their ability to adapt to their occupation (Schultz & Schkade, 1992). Visual disability impacts the way an individual will maneuver in their environment and just as the environment to could influence the person. In summary, the person and environment are continuously interacting through occupational engagement. A visually impaired client must generate, evaluate, and integrate new adaptive techniques and strategies to engage in the adaptive process in response to occupational challenge. Within our scope of practice, the goal of therapy as guided by this theory is to increase and capitalize on the client's capacity to adapt, with the client as the primary contributor.

As research previously examined conveys, there are numerous benefits to low vision occupational therapy that help increase an individual's ability to live more independently. Occupational Therapists take a holistic approach that considers a client's comorbidities, mobility, the home and community settings where they engage in meaningful activities. To enable patients to receive these services, it is necessary to market the vision rehabilitation program to local health care providers. Referrals may be made by primary care physicians, optometrists, or ophthalmologists and therapy services are covered by Medicare, most private

health insurance programs, and Medicaid in the state of Indiana. Educating these referral sources can support clients with low vision who may benefit from increased opportunities to participate in their chosen occupations.

Screening and Evaluation

The determined goals and objectives for the capstone experience were formed in advance and edited throughout the weeks leading up to the start date. The first two weeks of the experience were utilized to understand patient flow in the vision program at RHI and Neurorehabilitation Center (NRC). During that time, the referral, patient experience and discharge process were all introduced and explained thoroughly by the site mentor. A formal needs assessment was completed during the third and fourth week. The purpose for the assessment was to determine the level of health literacy and demand for patient education materials within the vision occupational therapy department at RHI and NRC. An eight-item Google Form survey was sent via email to the five vision department staff members in order to determine the needs of the program.

The needs assessment was constructed to highlight four topic areas: use frequency of patient and family education resources, nature of the resources provided, availability of resources, and the overall level of health literacy levels of these resources. Three therapist shared their responses via Google Form, refer to Appendix A, as well as verbally after completion to expand their thoughts. In the results, practitioners answered that they are providing patient/patient family resources “often” or for “every patient” they treat on their case load. When asked what resources they are most often providing, having the ability to choose more than one answer, 100% of the respondents provide home exercise programs, 66.7% provide Medical Doctor (MD) or Optometry referrals, 33.3% provide home modifications and compensatory

strategy information, and 33.3% provide school modifications and accommodations for the pediatric population (see Appendix A). The least frequently provided resource was fall prevention information and diagnosis specific vision education.

As indicated by Blaylock and Vogtle (2017), individuals with visual impairment have increased risk for falls which can impact health and negatively affect occupational performance. With review of literature, Casteel, Jones, Gildner, Bowling and Blalock discuss fall risks and prevention behaviors among community-dwelling older adults and discover that "having efficacious programs, in addition to an infrastructure that will support long-term implementation, is becoming increasingly important as the population of older adults increases and they are choosing to age in place (2018, p. 1098)." NRC is an outpatient clinic providing therapy to patients' post-neurological event; the majority being home-dwelling individuals with a vision impairment. Fall risk has increased with visual impairments and patients should be provided with education for home modifications to decrease that risk (Casteel, Jones, Gildner, Bowling, & Blalock, 2018).

The next section of the needs assessment focused on the resources not available or resources the therapists would like to modify. Therapists were provided with an open comments section in which desired resources were relayed. These included diagnostic information sheets, low vision services available in the Indianapolis area, fall prevention, and pediatric focused family/teacher education (see Appendix A). Modifications to resources were mentioned including: intervention sheets, handouts patients receive to enlarge print size, and pediatric home exercises. Health literacy is the next topic addressed in the assessment. Thirty-three percent of the therapists responded that the materials used are not health literate, 33% responded *maybe*, and the last 33% responded with an added note, *I feel like the ones we typically use are, but*

perhaps rarely used ones aren't (see Appendix A). After each completed assessment, therapists approached me to further discuss their interactions with patients. Generally, therapists found themselves frequently explaining a majority of their resources for patient education, through making changes to the sheet itself for ease of understanding.

The lack of health literacy in the resources provided to the impaired vision population in both clinics can be an issue of compliance and overall improvement in occupation. Warren, DeCarlo, and Dreer (2016) compare health literacy in older adults with and without low vison and discovered a consistent complaint of a heavy reliance by health care providers on using visually inaccessible print materials to deliver important information. Similarly, Dumas, Carmody, Black, and Blake (2018) urge occupational therapists to be the lead in efforts to provide quality education materials. RHI and NRC vision services will benefit from improved or additional patient resources that have an appropriate level of health literacy.

The need for health literate and accessible patient education resources is not isolated to one practice area. Individuals with vision impairment after a neurological event or more slowly acquired low vision can encounter this issue in healthcare settings. For example, a patient encounters many different levels of therapy from onset of stroke to accomplishing all goals. Most likely, they would receive therapy in the hospital on to acute rehabilitation or sub-acute rehabilitation and potentially following up with outpatient therapy. All of those settings frequently provide patient education. Occupational therapy practitioners should be aware of all aspects of the health care environment and their opportunity to assist in adjusting the environment to fit client needs to improve their overall health and functional outcomes (Smith & Gutman, 2011).

Implementation Phase

After completion of the needs assessment and continuous communication with RHI therapists, results led to the implementation of multiple resources that are specifically developed for those with visual impairments. Patients admitted into inpatient rehabilitation receive a binder upon arrival including multiple documents such as a welcome letter, map providing the location, necessary phone numbers, contacts, and more. All documents are printed in size 12 font with single spacing, posing difficult readability for a patient with vision loss/impairment. Documents and resources deemed difficult to read or understand by the Short Assessment of Health Literacy tool and were edited and enhanced to meet the needs of visually impaired patients at RHI. These documents are stored in the admission office, vision therapy room, and therapy resource file cabinet.

In both the outpatient and inpatient settings, there were no existing documents for vision programs/resources that are currently provided in the Indianapolis area. In the past, therapists would provide patients with information on Indianapolis resources by hand written note or verbal communication. With observation of this process and speaking with multiple therapists, I decided to develop multiple documents providing information including local adaptive sports opportunities, audio services, awareness and advocacy groups, continuing education, employment resources, equipment and technology vendors, and transportation options for the Indianapolis area. Each category listed above is printed separately on a uniform template to create ease for therapist when retrieving handouts for each individual patient, see Appendix C for example. Extensive research and communication with RHI therapists was completed throughout the experience in order to create each resource of high quality organizations.

The vision team also has the opportunity to provide in-home evaluations for patients to implement a visually supportive and safe environment. Currently, they were utilizing the Low Vision Home Safety Assessment tool to discover hazards, surface area, lighting, clutter, glare, contrast, and other obstacles that may challenge function in their home. The assessment tool is extensive and follows a room by room progression. It was brought to my attention during a staff meeting that the assessment tool is difficult to use while at the patients house due to the number of pages and blanks to complete. To decrease this frustration, a record sheet was designed and implemented for the therapist to use during the evaluation that correlates directly with the Low Vision Home Safety Assessment tool. The record sheet follows the same room by room progression and obtains a list for therapist to check throughout each room. An example of items to check in each room could include lighting, contrast, floor surface, door thresholds, ability to use doorway, patterns, décor, obstacles, hazards, position of light switch, accessibility to light switch, shadow, and glare. Each room has different items to consider as each room purposes various function.

As previously mentioned, individuals with a visual impairment have an increased risk for falls which can impact health and negatively affect occupational performance (Baylock & Vogtle, 2017). It was noted early in the capstone experience that there was no fall prevention program in place for the vision department. As research suggests, vision is a contributing factor in fall risks within the home (Baylock & Vogtle, 2017). Over the course of 14 weeks, I conducted an independent literature review of 24 articles to gather the most current information on fall risks and prevention strategies. I created a document organizing information from the literature such as general fall risk factors, visual impairments leading to falls, average age affected, type of home environment, readmission rate, and prevention strategies that were

specific to vision. This document was provided to the vision team as well as a binder including all of the articles used in the literature review. The literature review provided was foundational to the design of a patient friendly and health literate resource on fall prevention for individuals with visual impairment. This document includes environmental changes such as removing obstacles and hazards, lighting up the living space, and using assistive technology or equipment. In addition, the document provides tips to remain healthy and active, see example in Appendix D. Specific tips are listed, though the document should be used to educate the patient in a way that is personalized to their home environment and best fir their needs.

The vision team at RHI has a goal of increasing referral sources for low vision rehabilitation in the Indianapolis area. Multiple marketing calls to physician, optometry, and ophthalmology offices offered numerous providers information on how low vision occupational therapy could benefit their patient. At each meeting, the marketing representative would provide the office with resources such as prescription pads, vision occupational therapy flyer, and RHI informational booklets. The brochure provided the occupational therapists exact role and the services available to the patient. Additionally, a vision occupational therapy brochure was designed that is accommodating to the low vision population. This brochure had an increased font size and spacing, bolding for emphasis of certain words or phrases, and increased contrast. This can be displayed or offered to patients in the optometry offices to help guide physicians in explaining RHI's vision services.

To appropriately and successfully implement this system within RHI's overall daily systems, the vision staff was provided with a brief overview of the available resources and the purpose of each. During monthly vision team meetings, use of the re-designed documents was reviewed and examples of how to include the resources their daily treatment were discussed. The

goal of this educational process was set to create consistency and efficiency, offering the therapist to increased time for therapeutic activity and exercise within their session. Staff development was implemented through education of how to utilize these resources in a timely manner and maintain easy access in the vision room. The time that would have been spent writing the information during the session is now spent reviewing with the patient using the resources already available.

In the midst of program development, it was important to understand the level of self-direction I would need to successfully implement projects. As a student, I assumed a leadership role by planning, developing, organizing, and marketing multiple projects at once. One of the skills that was vital throughout the capstone experience was communication. I was able to clearly and succinctly explain the goals and objectives of each individual project to my site mentor as well as the vision department. Active listening skills are an important component to effective communication. During the needs assessment phase, the vision department voiced their needs and I communicated my understanding and plan of action. This communication and consistent interaction between the site mentor and myself allowed for a smooth process with editing and implementing the resources within the clinic. It was important to be open to feedback and learn from each other.

Developing advanced clinical skills in addition to designing patient education materials and program development created a need for an organized schedule. Each day, I would plan for time to work on projects in between patient appointments and meetings, but daily adaptations to the patient schedule required my flexibility. The site mentor trusted that I was making progress on projects throughout the course of the capstone. We held weekly meetings to review progress; I was then responsible for generating a plan for progression to continue. Independent leadership

skills allowed me to initiate a multitude of tasks as I was self-directed with the entirety of the capstone. I had confidence in my ability to lead a group of occupational therapists in multiple projects which then allowed me to be a better student and clinician.

Discontinuation and Outcome Phase

Toward the end of the capstone experience, an outcome study was created to analyze the effectiveness and efficiency of the resource system implemented within the vision program. The outcome measure used six Likert scale style questions on satisfaction level (see Appendix B). Therapists were given the satisfaction survey within the last two weeks of the capstone experience in which four therapists on the vision team turned in completed surveys. These results indicated 100% satisfaction as all therapists responded to each of the six questions with *completely satisfied*.

To continue the use of vision resources, I provided the vision department with the document files on RHI's shared drive to enable access at all times. Several copies of each resource were printed and organized into filing cabinets in both the outpatient and inpatient offices to insure their availability within the clinic. The resources were implemented within the last two weeks of the experience allowing me the time to promote their availability to staff therapists in a more organic way. The site mentor will ensure that the resources will remain in stock in the filing cabinets at all times. The documents located on RHI's shared drive will allow for addition of information or editing as future patients require.

Any individual with age-related visual diseases, neurological injury such as stroke or head injury, or trauma to the eye can benefit from vision occupational therapy. To effectively assist patients to use their available vision to function independently, it is necessary to provide resources and additional information to ensure mastery of their occupational performance in all

of their occupational contexts. The capstone experience has provided the opportunity to meet the needs of individuals with low vision and make an impact on their safety in the home, provide them opportunity to engage in their community, and better function through the proper use of adaptive equipment.

Overall Learning

Throughout the capstone experience, I have had the opportunity to interact with patients, patients' families, therapists, physicians, and marketing personnel on a consistent basis. Completing advanced clinical skill has enhanced my comfort when communicating with a patient and their family about their diagnosis, care, and prognosis. I utilized the newly developed resources and called on prior experience to educate as efficiently as possible and ensured their questions or concerns were addressed before discharge. Within the program development focus of my doctoral capstone experience, I verbally communicated daily and sent emails weekly. I took initiative to relay the status of my projects to the vision therapists and I asked appropriate questions to ensure the quality of the resources. It was empowering to experience the impact vision occupational therapy can have on a patient's life. Without the compensatory strategies and skills to utilize their remaining vision, their occupational performance would have suffered. This experience has provided me with an opportunity to gain the knowledge of proper care for these individuals, and I will be able to utilize that knowledge in many settings.

RHI's low vision program provides services to a wide variety of patients with various diagnoses. Through clinical practice, I have learned to assess a patient's oculomotor skills, overall visual attention, reading skills, acuity, and visual perception ability. I understand how to make an appropriate decision when creating a patient plan of care and also when to refer to an optometrist, ophthalmologist, or neuro-optometrist based on their presentation. Throughout the

doctoral capstone experience, I have evaluated and treated patients with concussion, stroke, brain injury, low vision, and multiple sclerosis who may have symptoms of visual field cuts, diplopia, light sensitivity, visual inattention, or visual perception difficulty. Within all patients' plan of care, I utilized the just right challenge and graded appropriately considering their needs. Leading into discharge, I took advantage of the newly available resources to provide the patient with proper information and techniques to continue use of therapeutic techniques after returning home. The experience of treating patients with visual deficits provided me with direct insight as to how occupational therapy can implement daily interventions for improved occupational performance.

Treating patients on a daily basis complimented and provided additional insight to the development of vision resources. Not only did I gain intervention experience, but the capability of creating a new resource system within a highly respected program as well. The type of leadership embodied in a system links to sustainability of the program by the desire of the team members (Metcalf & Benn, 2012). Executing that link required consistent engagement and dynamic changes to fit the needs of the client. I was able to expand my creativity, logical thinking, and leadership abilities through the overcoming of systemic challenges to meet the needs of my client, RHI. Creating a program over the duration of 14 weeks demanded high quality time management skill. I created an outline of each week and organize thoroughly my goals and objectives, though barriers did arise creating the need for multi-tasking and problem solving in order to complete the resource system.

Each of the individuals I had the opportunity to work with were very professional and lead by example each day at RHI. The vision occupational therapy team was eager to assist in any way and willingly answered a number of my questions. Observing their positive demeanor

and ideal communication skills created an optimal learning environment for the 14-week experience. I attribute most of my leadership and advocacy skills to not only observing my site mentor, but the entire RHI staff. The vision team allowed opportunities for me to advocate for vision occupational therapy by speaking to different optometrists around the Indianapolis area discussing what services we are able to provide to their patients. As occupational therapists in distinct roles, it is important to speak out to other health professionals to help patients receive needed services and share the distinct value of our services (Walsh, 2018). This creates an opportunity to advocate for occupational therapists to be present in many settings and receive referrals for patients who have visual impairment. Creating relationships with referral services, then providing their patients with excellent interventions is a great way to promote our profession. The skills observed and captivated during my experience will carry over into my early career as an occupational therapist.

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Appendix A

Results of Needs Assessment

1. Please list your job title and population you serve: (3 responses)
   Therapist 1: OTR vision program, IP and OP
   Therapist 2: Vision program facilitator, adults with vision deficits
   Therapist 3: Occupational Therapist, pediatric neuro and developmental
2. How often do you provide any type of resource to your patient's/patient's family? (3 responses):
   I do for every patient (1)
   Often (2)
   Sometimes (0)
   Never (0)
3. If you do, which type of resource do you provide the most? Feel free to answer more than resource if used. (3 responses)
   Home exercise program (3)
   Diagnosis information sheet (0)
   Practitioner information (2)
   Home modifications and accommodations (1)
4. Which type of resource do you provide the least? (3 responses)
   Home exercise program (0)
   Diagnosis information sheet (3)
   Practitioner information (0)
   Home modifications/compensatory strategies (0)
5. Are there resources you wish you had on hand? If so, list and explain: (3 responses)
   Therapist 1: diagnosis info sheets would be nice
   Therapist 2: low vision services in the area and around the state
   Therapist 3: School accommodations checklist, tend to make up individual ones each time, sensory integration strategies for attention and focus (home and school), primitive reflex integration explanation (currently use handouts for testing and integration, but has little explanation), font size "checker" in Arial, Times New Roman, Calibri
6. Are there resources you wish to modify? If so, list and explain: (3 responses)
   Therapist 1: excel date entry sheets, new photos for common item board for aphasic patients
   Therapist 2: the handouts all patients receive, modify for large print
   Therapist 3: Core strength activities, different saccadic home programs sheets that include high frequency words
7. Are the resources available health literate for all populations? (3 responses)
   Yes (0)
   No (1)
   Maybe (1)
   Other: Therapist 1: I feel like the ones we typically use are, but perhaps rarely used ones aren't. I'm thinking about the Indiana library books on tape handout as questionable.
8. Do you believe there is a need to advocate for vision occupational therapy services outside of RHI? If so please explain where and why: (3 responses)

Appendix A (Continued)

Therapist 1: Yes, many who could benefit are not referred. Do we send info to local doctors to increase awareness?
Therapist 2: Yes, there is a lack of understanding the services we provide and the benefits
Therapist 3: Yes, no need to be territorial when the need is there is.

Appendix B

Outcome Measure

1= not satisfied at all, 5= completely satisfied

1. Please rate your satisfaction with resources related to the Indianapolis area.

   1 2 3 4 5

2. Please rate your satisfaction with the fall prevention resource.

   1 2 3 4 5

3. Please rate your satisfaction with the home evaluation record sheet.

   1 2 3 4 5

4. Please rate your satisfaction with the low vision resources.

   1 2 3 4 5

5. Please rate your satisfaction with the inpatient binder system for low vision population.

   1 2 3 4 5

6. Please rate your satisfaction with the location and organization of the resources.

   1 2 3 4 5

Appendix C

Example of Indianapolis Vision Resource

Rehabilitation Hospital of Indiana

Equipment and Technology

INDATA DEPOT

http://www.eastersealstech.com/2016/06/27/department-highlight-depot/

An equipment reutilization and computer reutilization program for receiving assistive technology equipment from donors and provided to individuals in the state of Indiana who have a disability.

The Low Vision Store

916 E Main St. STE 114 Greenwood, IN 46143

(317) – 888 – 0323

Vision Aid Systems: The Low Vision Store

https://visionaidsystems.com

Available assistive technology

Accessibility and Technology Seminars

http://www.hadley.edu/SeminarListing.asp?tid=1

Online and free through Hadley Institute for the Blind and Visually Impaired. Topics include multiple iOS tips for accessibility products, Window's 10, social media and Android accessibility.

Technology Grant

http://www.in.gov/library/files/TBBL_Grant_Application_2015

On behalf of the Indiana Talking Books and Braille Library provides monetary reimbursement towards the purchase of an assistive technology device for Talking Book patrons.

Appendix C (Continued)

Rehabilitation Hospital of Indiana

Equipment and Technology

Listings of accessible apps or apps that assist with accessibility for blind or low vision

http://www.androidauthority.com/best-android-apps-visually-impaired-blind-97471/

Alternative Financing Program

http://www.eastersealstech.com/sample-page/assistive-technology-funding/

Through INDATA provides low-interest extended rate financial loans to qualified individuals for assistive technology devices.

Best Android Apps 2

http://www.afb.org.afbpress/pub.asp?DocID=aw140303

Be My Eyes

http://www.bemyeyes.org/

Connecting visually impaired users with sighted volunteers across a video call for immediate and quick access to visual assistance

Turning on iOS Accessibility Features

http://support.apple.com/en-us/HT240390

Includes VoiceOver, Zoom, and Invert Color

Appendix D

Example of Low Vision Resource

LIVING WITH LOW VISION

LOCATION AND SCANNING STRATEGIES	• Clock method – orienting items on tabletop, counter, or plate using the clock orientation ("your green beans are located at 3'oclock and your mash potatoes are at 9'oclock"). You can keep your bathroom items in the same location using the clock method as well • Finger tip scanning – using finger tips not palms of hands to locate items to not knock things over
PREVENT FALLS AND OVERALL FUNCTIONING IN HOME	• Remove clutter, cords, throw rugs • Place furniture and appliances in low traffic patterns • High contrast grab bars or railings • Good lighting in walkways, hallways, stairwells, etc. • Hang clothes by color in closets (similar colors, like black and navy, on opposite sides) • Keep commonly-used items in the same easy-to-access location
SHOPPING	• Make a list according to location in store • Shop online or delivery services • Advocate for yourself within the store if you need help
MEDICATION MANAGEMENT	• Ask physician to describe and explain new medications • Ask pharmacist for large print label

Information provided by The American Occupational Therapy Association, Inc.

Appendix D (Continued)

	• Mark each pill bottle (using Velcro, felt, rubber bands, button, bump dots, puff paint)
IMPROVE VISABILITY	• Use contrast to distinguish items (dark bathmat with rubber backing on a light floor, light cutting board on dark countertop, colored tape on the edge of stair risers, white sheets with dark comforter and pillows) • Use night lights, flashlight, hall or room lighting when getting up at night • Avoid moving quickly from a dark room to lighted area (allow eyes to adjust) • Use overhead lighting (eliminate shadows) • Use shades on all light sources (reduce glare) • Gooseneck lamp for tabletop
PREPARE MEALS	• Keep items in refrigerator and cabinets in an order natural for you • Scan or copy recipes into a high contrast and large-print • Organize recipes alphabetically • High contrast items (white plate for dark food, white mug for coffee, black measuring cups for flour and sugar) • Use counter lighting • Timers with oversize buttons • Bump dots, tactile cues for buttons on stove and microwave

Information provided by The American Occupational Therapy Association, Inc.

Appendix D (Continued)

FINANCIAL MANAGEMENT	• Organize bills and other important papers in different colored trays or folders with large labels • Pay bills and track accounts online to enlarge the font • Use adaptive equipment (e.g., large-print checks, signature guides, magnifiers, etc.)

NOTES FROM THERAPIST:

Information provided by The American Occupational Therapy Association, Inc.