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School of Occupational Therapy

# Education, Advocacy, and Program Development for Individuals with Disabilities

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A capstone project submitted in partial fulfillment for the requirements of the Doctor of Occupational Therapy degree from the University of Indianapolis, School of Occupational Therapy.

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# A Capstone Project Entitled

Education, Advocacy, and Program Development for Individuals with Disabilities

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

**Purpose:** The purpose of this Doctoral Capstone Experience (DCE) project was to develop effective and inclusive safe transfer training for support staff at Garden Center Services (GCS), propose a plan to increase accessibility of the facility, and adjust wheelchairs and walkers to improve client positioning.

**Need:** Through the use of the Americans with Disabilities Act (ADA) Checklist for Existing Facilities, many areas of inaccessibility in the buildings were identified. The majority of the consumers' walkers were either too low or high, leading to improper ergonomics while using their walkers. The direct support staff (DSP) and day program director also identified a need to revamp the education on transfer training to staff.

**Implementation**: From the accessibility assessment, a proposal plan was created including rankings of priority (low, medium, and high priority), cost, limitations due to inaccessibility, and recommendation of the changes needed. A new transfer training program was developed to be included within DSP training, including videos, hands-on practice, pre-/post-tests, competency forms, and handouts. Finally, each walker was adapted to the appropriate height for all individuals, and staff were trained in proper positioning for walkers and wheelchairs.

**Discontinuation**: All training materials were provided to GCS for future use. The recommended accessibility changes will be completed in phases. The competency of staff for transferring consumers improved, and positioning and satisfaction from the consumers during functional mobility also increased.

*Keywords:* accessibility, ergonomics, safe, competency

## Background Information and Literature Review

### Background Information

Garden Center Services (GCS) is an agency that provides housing and day programs for individuals with disabilities. GCS has two day programs between the State building and Kedzie building. The consumers of the agency range in abilities and disabilities including developmental delays, Down syndrome, hearing impairments, visual impairments, and more. The staff at GCS were not receiving adequate training from GCS on transfer training and mobility. The staff at GCS is comprised of direct support staff (DSP), day program managers, and nurses. The majority of the staff at GCS are DSPs whose qualifications are a high school degree without any previous experience needed. The purpose was to develop effective and inclusive safe transfer training for support staff at GCS.

### Guiding Model

The model used to guide professional reasoning within the context of this doctoral capstone experience was the Ecology of Human Performance (EHP). The focus of the EHP is to look at the contexts of task performance, which include cultural, physical, and social environments. The person is made up of unique skills and abilities for cognitive, sensorimotor, and psychosocial domains (Cole & Tufano, 2008). Tasks are defined as the behaviors that are needed to complete an end goal (Cole & Tufano, 2008). Context is defined as the conditions that make up the person's surroundings and are put into two categories: temporal and environmental (Cole & Tufano, 2008). Personal-context-task transaction looks at the interaction between the person performing a task and their individual context(s), which leads to human performance (Cole & Tufano, 2008). When evaluating the staff and consumers, it was important to look at the transaction between the person-context-task to fully understand what was needed regarding

transfer training and staff education for the agency. By being an advocate and facilitator for the agency personnel, the focus was on gaining independence through needs and opinions to develop educational sessions and programs (Cole & Tufano, 2008). Motivation was increased by asking the person what they wanted and needed, so it was important to understand what the agency's motivation was to develop a program with the best fit. By adding the appropriate programming for the agency, this increased the performance range for the client, allowing them to be able to complete more tasks within their environment.

## Guiding Frame of Reference

The focus of the biomechanical frame of reference (FOR) is on adaptation, compensation, and environmental modifications (Cole & Tufano, 2008). For the transfer training, it was important to understand all of the biomechanical principles to teach staff the best way to handle each consumer's individual needs. The goal of the biomechanical FOR is to analyze the task demands when looking at occupation as a means of providing graded exercise or biomechanical interventions (Cole & Tufano, 2008). Within the biomechanical FOR, function can also be defined as using good body mechanics and ergonomics within daily life (Cole & Tufano, 2008). The goal of the program was to instill safe transferring and patient handling techniques among staff to prevent injuries among staff and consumers at GCS.

## Literature Review

**Factors inhibiting safety.** A number of factors can affect safety while performing transfers (Aminzadeh, Edwards, Lockett, & Nair, 2000; King, Holliday, & Andrews, 2018). Inadequate space in bathrooms impacted the use of adaptive equipment and individuals from receiving ergonomic assistance due to care providers using awkward positioning, increasing risk of injury (King et al., 2018). Additional factors leading to fall risk included unsteady and

unpredictable clients along with non-secured throw rugs (Aminzadeh et al., 2000; King et al., 2018). Within bathrooms, use of inappropriate supports such as sinks, bath tubs, towel racks, doors, and curtain rods was another factor found to be hazardous due to the lack of grab bars (Aminzadeh et al., 2000).

**How to improve safety.** Adaptive equipment (AE) was one way to increase the safety while performing a transfer (Kennedy, Arcelus, Guitard, Goubran, & Sveistrup, 2015; King & Novak, 2017; Kjellberg, Lagerstrom, & Hagberg, 2004; Stefanacci & Haimowitz, 2014). Showering and toileting transfers have been identified as some of the most hazardous activities among daily activities (Stefanacci & Haimowitz, 2014). Older adults and individuals with disabilities were reported to have greater instability than younger adults and individuals without disabilities, which increases the importance of transfer training for staff and individuals with disabilities (King & Novak, 2017). Transfer safety can be improved by ensuring the client is active in the transfer and with use of coordinated movements (Kjellberg et al., 2004). Results of Aminzadeh et al. (2000) indicated the importance and benefit of well-designed bathrooms to promote safety and independence of individuals in toileting, bathing, and grooming activities. Different aids that can increase safety include gait belts, draw sheets, bath mats, and grab bars (King et al., 2018; King & Novak, 2017; Kjellberg et al., 2004; Stefanacci & Haimowitz, 2014). When entering in and out of the bathtub, a loss of balance could occur, causing a person to take a lateral step, which is found to be difficult for older adults (King & Novak, 2017). By utilizing non-slip bath mats in and outside of the tub, postural control is increased, and lateral slip is reduced (Galeotafiore, 2019; King & Novak, 2017; Stefanacci & Haimowitz, 2014). Grab bars were indicated as another way to increase safety during transfers into the tub (King et al., 2018; Stefanacci & Haimowitz, 2014). Specifically, King and Novak (2017) recommended the

placement of vertical grab bars within tubs at entry-point and along the back to improve postural control when showering. Similarly, results indicated that vertical grab bar placement is preferred and increased safety for toileting (Kennedy et al., 2015). For older adults, elevation of a toilet by five-seven inches from standard toilet height of 15-17 inches increased leverage to stand (Stefanacci & Haimowitz, 2014).

**Transfer education.** Proper transfer technique was important for professionals and the patient to ensure safety of all (Boninger, 2013; Kjellberg et al., 2004). Results indicated that higher scores for safety and comfort were reported if safe work techniques were used (Kjellberg et al., 2004). Effective transfer education included using videos, hands-on training, and assessment of competence of techniques learned (Claycomb, 2015). Communication of transfer education to staff and instructions to consumers during transfers with common language is important to maximize safety and cooperation. Another important factor in transfer training was knowing the limitations and barriers of each transfer, the client, and the equipment selected (Claycomb, 2015). In preparation for transfers, individuals should be educated on being close to transferring surface, locking of wheels on wheelchairs, and removing of obstacles (Boninger, 2013). Important ergonomic principles to teach during transfer training included keeping individuals being transferred as close to the transferrer's body as possible and to transfer to level surface or to slightly downhill to increase safety of transfer (Boninger, 2013).

**Effects of training**. Safe patient handling (SPH) is very important to protect the staff, protect consumers, and prevent lawsuits (Condie, 2015; Kjellberg et al., 2004; Ore, 2003). For nursing assistants, 44,100 days away from work were reported, and over half of those cases were due to overexertion (Condie, 2015). Patient falls were a leading cause of hospital injuries and were the most common adverse event reported in a hospital (Condie, 2015). The implementation

of safe patient handling programs led to significant reduction in falls and musculoskeletal disorders among caregivers and staff (Condie, 2015; Ore, 2003). These SPH programs led to a decrease in low-back injuries, decrease in lost work days, and a significant savings on worker's compensation cost (Condie, 2015; Ore, 2003). While this project does not affect nurses or caregivers, this information is applicable to the staff at GCS because having adequate education regarding transferring clients could help reduce the likelihood of consumers and staff being injured or acquiring symptoms of musculoskeletal disorders.

Through the use of EHP and biomechanical FOR as guidance, the purpose of this DCE was to develop effective and inclusive safe transfer training for support staff at GCS, propose a plan to increase accessibility of the facility, and adjust wheelchairs and walkers to improve client positioning. Multiple methods of education were used to educate staff and prove competency to increase effectiveness and safety of the current transfer training received by staff.

## Screening and Evaluation

### Results of Needs Assessment

A needs assessment occurred that looked at accessibility of the facilities, wheelchairs/walkers of the clients, clinical observation of transfers of consumers, and occupational profiles with staff at GCS. The director of behavioral/day program services identified the initial need in regard to development of transfer training. The overall results of the needs assessment identified a need for changes to the environment to increase accessibility, education to the staff on transfer training to improve safety, and adjustments to wheelchairs/walkers to improve the overall quality of care of the consumers served at GCS.

**Accessibility assessment**. GCS identified they were aware of changes that needed to be made in order to increase accessibility, but at the time of the DCE project, they did not have the

resources to make all of the changes identified. Through the use of the ADA Checklist for Existing Facilities, many areas of inaccessibility in the buildings were identified (Institute for Human Center Design [IHCD], 2016). The highest priority for change identified was the bathrooms. At the Kedzie building, there was one bathroom that was almost fully accessible with the exception of the height of the light switch, height of the towel dispenser, and the placement of the grab bars (IHCD, 2016). The majority of the other bathrooms at Kedzie had multiple areas that needed adjustment to be accessible including door width, grab bar placement, toilet height, towel dispenser height, and door weight (IHCD, 2016). At the State building, within the accessible stall the grab bars were too short and not properly positioned, the lock was unable to be opened with a closed fist, the toilet height was too low, the stall door was not wide enough, and the toilet paper dispenser was too far away from toilet (IHCD, 2016). Due to the nature of the consumers at GCS, my recommendation was to have more than one restroom that is accessible for the aging consumers they serve.

Other inaccessible points identified within both buildings included clearance within rooms and the height of light switches (IHCD, 2016). Within rooms there should be 36” of clearance to allow for maneuvering of wheelchairs, but within five rooms at State and four rooms at Kedzie, adequate space was not available (IHCD, 2016). Due to these accessibility issues, the occupational performance of the consumers at GCS could be impacted. For example, due to inadequate clearance, an individual in a wheelchair would be unable to get to an area in a room to reach games or activities. Another way occupational performance could be affected is by paper towel dispensers and light switches being too high, making them unable to be reached by someone in a wheelchair. These areas of inaccessibility limit the independence of the individuals at GCS.

**Wheelchair and walker assessment.** Through assessment of positioning in wheelchairs and walkers, there was a need to make adjustments and educate the staff on appropriate positioning to improve occupational performance and prevent pressure sores (Pendleton & Schultz, 2017; Zhao, Shalem, Li, Master, & Liu, 2015). The majority of the consumers' walkers were either too low or high, which led to improper ergonomics while using their walkers (Pendleton & Schultz, 2017; Zhao et al., 2015). According to Zhao et al. (2015), when a walker is too high, individuals "grip too tightly, … wrists… become more ulnarly deviated, elbows more flexed, and shoulders more elevated and abducted" (p. 129). When a walker is too low, individuals lean forward to grip, effectively putting strain on their lower back (Zhao et al., 2015). Improvements were needed to the walkers to promote proper body mechanics, improve functional mobility, and prevent falls for the consumers (Zhao et al., 2015).

As Trefler and Taylor (1991) reported, proper positioning in a wheelchair is important to allow optimal performance for individuals with disabilities. Multiple consumers were observed with a mispositioned pelvis, which is without their hips against the back of their chair (Pendleton & Schultz, 2017; Trefler & Taylor, 1991). Improper head positioning was observed with some consumers' heads not aligned with their head rests (Trefler & Taylor, 1991). It was also noted that straps were positioned inappropriately; for example, not being used, too loose, or too tight, leading to improper positioning (Pendleton & Schultz, 2017; Trefler & Taylor, 1991). Due to the preceding information, the staff needed to be educated on proper positioning of wheelchairs and walkers to allow for improved occupational performance for the consumers at GCS.

**Transfer training.** From the occupational profile and clinical observation of the DSP and day program director at GCS, a need to revamp the education on transfer training with more detailed information was identified (Pendleton & Schultz, 2017). Staff indicated they would

benefit from the inclusion of hands-on experiences, which coincides with results of Claycomb's recommendation of using videos, hands-on training, and assessments of competence of techniques learned (2015). Additionally, the staff reported there was no competence testing included after their DSP training. All of the staff identified receiving previous transfer training from prior work experience. When the DSP described transferring individuals, they described the appropriate techniques, but clinical observations showed evidence of need for transfer education, similar to Vijayakumar and Badlal (2017), who reported discrepancies of staff reports in knowledge from actual competency. Staff were observed transferring by bending at their hips, not being as close to the transfer surface as possible, and at times forgetting to lock wheels. Due to these clinical observations, it was evident that the staff needed further transfer training to improve transferring technique and competence (Boninger, 2013).

**Comparison and Contrast to Other Practice Areas**

There are similarities and differences between occupational therapy within a community setting such as GCS and between emerging and existing areas of occupational therapy. Similar to emerging practice areas such as primary care and lymphedema specialists, the role of an occupational therapist in a community-based setting needs to be advocated to co-workers and clients in the community-based setting. Ineffective transfer training can lead to injuries of consumers and staff, as occurs in existing practice areas including acute care and skilled nursing facilities. For example, in the acute care setting, transfer education to the individuals and family members is important to decrease fall risk and increase adherence with precautions (American Occupational Therapy Association [AOTA], 2017; Condie, 2015). Within the acute setting, transfer education to other staff members is not a typical role for occupational therapists but is an area that an occupational therapist would be qualified to address, similar to a community setting.

Another area occupational therapists are qualified to address within a variety of settings is wheelchair/walker positioning. Within schools, acute care, and skilled nursing facilities, clients and staff require education on proper positioning to increase occupational performance in daily activities, such as functional mobility and activities of daily living (Trefler & Taylor, 1991; Zhao et al., 2015). Within the acute care setting, oftentimes recommending the purchase of a walker is made, but within this community setting, a majority of the clients that need functional mobility devices already own them. Similar to the school setting, an occupational therapist's role within the community setting is to support and adapt activities for their clients (AOTA, 2016). Contrary to a school occupational therapist, interventions within a community setting do not need to be related to school performance (AOTA, 2016). A similar role within this setting and the school setting is inclusion and accessibility (AOTA, 2016). While the role of inclusion and accessibility in a school is more focused on the inclusion in school activities, within the community setting, the focus is more on leisure and accessibility to the environment. Another similarity to the school setting is communication with the staff to promote success of the individuals (AOTA, 2016). Without the communication with the staff, follow-through of the interventions will not occur, and the client's occupational performance will be jeopardized.

## Implementation Phase

### Intervention

**Accessibility proposal plan.** After completion of an assessment of accessibility, an accessibility proposal plan was developed with an itemized list of the changes that should be made to increase the accessibility at GCS. Included within the proposal plan was ranking of priority (low priority, medium priority, high priority), cost, limitations due to inaccessibility, and my best recommendation of the changes needed at GCS. The items identified as low priority

included height of light switches, coat rack, water fountain, and mirrors. Medium priority items included sink handles, height of towel dispensers, door width, and weight of bathroom doors. High priority items included toilet height, placement of grab bars, clearance throughout building, width of bathroom doors, placement of toilet paper dispenser, and safety of use of picnic tables. The accessibility proposal plan was presented to the director of behavioral/day program services, who shared the proposal plan with the director of operations.

**Transfer training**. A new transfer training program was developed to be included within DSP training. The training is a PowerPoint presentation including videos and hands-on practice throughout the training. Supplemental materials created for the training program include pre-/post-tests, competency forms, and handouts. The pre-/post-tests are ten questions to test the competency of the information learned throughout the training session (see Appendix A). The competency forms were created for each of the transfers used including: Hoyer lift transfer, two-person lift transfer, squat pivot transfer, and stand pivot transfer. Each employee was required to get an 85 percent on each of the transfers to be considered competent. Handouts for each transfer were created include the steps of the transfer, competency points, and pictures of how to complete transfer (see Appendices B, C, D, and E).

The format of the training session included a presentation of transfers. After explanation of each transfer, a video was played regarding the steps of the transfer. Then, a demonstration occurred, including practicing the transfers needed to ensure confidence before competency. The trainer walked around during the practicing in order to answer questions and provide feedback. After completion of the presentation, each individual was scheduled for competency and demonstrated each of the transfers. Handouts were provided to staff for future reference. For carryover of the transfer training, the director of behavioral/day program services was trained in

the implementation of the transfer training for future employees of GCS. All documents created were reviewed and provided to the director of behavioral/day program services, and she proved she was competent in teaching the information.

**Wheelchair and walker assessment**. Through the needs assessment, I found the majority of individuals using walkers needed adjustments due to being too low or too high for the client's individual needs. Adjustment of walkers improved the clients' biomechanics, increased stability, and improved independence in functional mobility. Each of the walkers were adapted to the appropriate height for all of the individuals at GCS. Also, wheelchair/walker positioning and importance was discussed with each of the DSPs. These training sessions were informal conversations that occurred over a few days; they included showing how to adjust the walkers appropriately. Handouts were developed for further reference regarding wheelchair and walker use, positioning, and the importance of positioning (see Appendices F and G).

## Leadership

Leadership skills such as competence, confidence, flexibility, communication skills, and organization skills were essential to an effective implementation of this DCE project. Competence helped promote the implementation process at GCS. My competence was developed through past experiences including fieldwork experiences, classes, literature review, and interviews with the staff at GCS. Competence in this area has led to the confidence to provide education effectively to the staff. Another leadership skill that helped with the implementation phase was flexibility. Flexibility allowed me to be able to adapt to different situations and adjust my plan to the changing needs at GCS. Communication skills were necessary to be able to articulate and advocate for the needs of GCS. Lastly, my organizational skills were crucial for the implementation at GCS. Due to all the components of the project, I needed to have a

multitude of lists to ensure all aspects of the project were completed in time. Through the leadership skills mentioned above, the implementation phase at GCS was completed with greater ease.

**Staff Development**

**Accessibility proposal plan.** By presenting the accessibility proposal plan, staff development at GCS was improved. The assessment of accessibility and proposal plan provided the staff with the knowledge base to increase accessibility at GCS. Also, the plan shows the staff about the barriers within the environment at GCS that would not be noticeable unless they were someone with a disability. With the increased knowledge regarding accessibility, the staff gained increased knowledge about how they can adapt the environment and provide the consumers with increased independence through the environmental changes suggested. Because the proposal plan only focused on the day programs sites, the staff can apply the information presented to determine adaptations that may need to be made within the community integrated living arrangement (CILA) owned by GCS to better serve their consumers.

**Transfer training**. The new transfer training will increase the effectiveness of the existing DSP training. Having hands-on experiences within the training will increase the staff competence before they start transferring consumers. Through the program developed, the staff will have increased evidence of the competence of the staff in the training of transfers. The new program will be able to be reused for all future employees, so all new employees will be on the same familiarity level about transfers when they begin work. Administration at GCS has made the transfer training a requirement for all future and existing staff. The director of behavioral/day program services was trained in the implementation of the training program. On a yearly basis, the director of behavioral/day program service will ensure all staff are competent and retrain

them if they are not. The materials for the program were provided to the director of behavioral/day program services and the director of behavioral/day program service for future use. The plan is for the training to be included with the training for all new DSPs before starting work. Due to all factors mentioned above, staff's knowledge of ergonomic transfers will be improved.

**Wheelchair and walker assessment**. Before the completion of the implementation, staff did not have an understanding of the proper positioning for walkers and wheelchair use. The knowledge provided increased the staff's abilities and will allow them to be able to select and properly use walkers/wheelchairs with more confidence than before. Education on proper positioning and the importance of proper positioning is important knowledge for the staff to know for the safety and comfort of the consumers served at GCS. As for the transfer training program, the director of behavioral/day program service was trained in the information provided to the staff. The director of behavioral/day program service will be in charge of ensuring the positioning is appropriate for the walkers and wheelchairs. By following the guidelines, all current and future consumers will not be inhibited by improper walker/wheelchair positioning.

## Discontinuation & Outcome Phase

### Overall Discontinuation & Outcome Phase

**Accessibility proposal plan.** In the beginning phases of the accessibility proposal plan, I was planning on completing an accessibility assessment and providing the areas that needed to be adjusted for accessibility. As the development of the plan occurred, it came to my attention that providing the information on the needed changes would be a daunting task due to the amount of changes found. Due to this, I decided to break down the accessibility issues into low, medium, and high priority. After breaking down the priority level, varying options and prices for

fixing the accessibility concerns were provided along with what my best recommendation was for adjustments. These additions to the plan decreased research needed by GCS and made the plan more feasible. The plan was provided to the director of behavioral/day program services, who shared the proposal plan with the director of operations. The outcome of the accessibility plan was that GCS plans to complete the recommended changes in phases to increase the accessibility for their consumers.

**Transfer training.** Throughout the development of the training program, continuous changes were made to ensure the program was developed effectively for the staff. Discussions occurred with the director of behavioral/day program services and staff, partially through the development of the program, to ensure proper information was included within the program. From discussions, the information regarding adaptive equipment, wheelchair use, and walker use was added to the transfer presentation. One of the goals of GCS this year is to improve the training of their staff to provide quality care to their consumers. The addition of this transfer training program aligns with this goal, improving the competency of the staff and increasing the effectiveness of the training. The transfer training program was provided to the director of behavioral/day program service to allow for continuation of use of training at GCS. Competency forms and pre-/post-tests were provided to the staff to show effectiveness of training and competency of the DSPs. The transfer training proved to increase competency of the staff at GCS in transferring of individuals ergonomically based on the scores of competency forms and clinical observation.

**Wheelchair and walker assessment.** From the needs assessment, it was identified that many of the walkers/wheelchairs needed adjustments. After completion of adjustments to the walkers/wheelchairs, I discussed the changes I made with the staff, who were unaware of the

correct adjustments needing to be made. The staff questioned how the heights of the walkers have gone unnoticed by all the other professionals who see the consumers at appointments. Due to this feedback, I made an adjustment to the plan of adjusting the walkers and added development of handouts for future reference, including proper positioning in wheelchair and proper walker use. Handouts were provided to staff and informed them they could ask me any further questions. Follow-up occurred with the staff a few weeks after to ensure they still had no questions regarding the material. The outcome of changes of the walkers/wheelchairs has led to improved positioning and satisfaction from the consumers during functional mobility.

**Response to Society Needs**

**Accessibility proposal plan.** The societal need being addressed at GCS was the accessibility of the building in order to increase the occupational performance of the consumers served. According to Nijs and Heylighen (2015), issues have been identified on multiple policy levels involving accessibility for individuals with disabilities. Through the use of the ADA Checklist for Existing Facilities, many areas of inaccessibility in the buildings were identified (IHCD, 2016). By providing GCS with information about accessibility, they will be able to increase the independence of the consumers served at their program.

**Transfer training.** The societal need addressed was the safety of the staff and consumers at GCS during transfers. Proper transfer technique was important for professionals and the patient to ensure safety of all (Boninger, 2013; Kjellberg et al., 2004). Patient falls were a leading cause of hospital injuries and were the most common adverse event reported in a hospital (Condie, 2015). The implementation of safe patient handling programs led to significant reduction in falls and musculoskeletal disorders among caregivers and staff (Condie, 2015; Ore, 2003). According to Claycomb (2015), completion of an effective transfer education includes

using videos, hands-on training, and assessment of competence of techniques learned, which was the format of the transfer training program that was developed.

**Wheelchair and walker assessment.** The societal need was adjustment of walkers and wheelchairs to prevent deformities and maintain proper positioning for the consumers at GCS. Through assessment of positioning in wheelchairs and walkers, it was determined there was a need to make adjustments and educate the staff on appropriate positioning to improve occupational performance and prevent pressure sores (Pendleton & Schultz, 2017; Zhao et al., 2015). Zhao et al. (2015) reported that having the walker too high or low can lead to strain, deformities, and discomfort of the consumers. By adapting the walkers and wheelchairs for positioning, the consumers have improved positioning for functional mobility and daily activities.

## Overall Learning

### Learning

My experience at GCS has been a very valuable learning experience and has prepared me in multiple ways for my future practice as an occupational therapist. Flexibility has been something that I have struggled with due to my personality of being organized and attentive to details, but from this fieldwork experience, I have learned that flexibility is key. Within this setting, every day is different, and the needs are variable. This will be a valuable skill to be successful in future practice because clients and our settings are unpredictable, and adaptability will allow for successful treatment of clients. Another valuable skill learned was being self-sufficient in this setting. Because my site mentor is the director of behavioral/day program services, she was very busy the majority of the weeks; this has allowed me to be able to complete tasks without direction. Self-sufficiency is an important trait for any job; as a new graduate,

being self-sufficient can be hard, but this experience has allowed me to grow in this skill. At this experience, there was a lot of different staff members that I needed to communicate with on a daily basis. This has allowed me to work on my communication skills with other staff members in a way they understand. Effective communication is needed for every job because there are many people with varying backgrounds and adapting communication for their understanding is important. All these experiences helped increase my professional development and will further develop my skills as a future occupational therapist.

Team members at GCS provided valuable insights to teach teamwork, leadership, and professionalism that I will utilize in future endeavors. One thing that was taught to me on the first day on the job by the behavior analyst was that building rapport is important to provide successful implementation, which will be helpful in future jobs no matter the setting. Another valuable lesson I learned was that teamwork is essential for follow-through on programs and plans. At one of the day programs, the behavior analyst had effective teamwork with the staff, which led to better success for the staff and consumers regarding programs. While at the other day program, the staff was not as effective, leading to more difficulty with follow-through. This experience has taught me to ensure that rapport and teamwork are established in any future job to have effective communication, collaboration, and respect amongst team members.

**Advocacy**

Advocacy skills were utilized throughout all aspects of the implementation phase at GCS, including advocating for occupational therapy, transfer training, accessibility, and proper positioning for walker/wheelchair use. At the start, advocacy about what occupational therapy is and the role of an occupational therapist in this environment was provided. Within this setting, there are many areas that could be addressed by an occupational therapist, but many would not

be considered traditional, which made explaining my role just as important. For the transfer training, advocacy was provided regarding what the importance of the training was for both the staff and consumers of GCS. Another area where advocacy for the clients was provided was with the accessibility proposal plan. Within the plan, I advocated for what would be best for the clients to promote optimal occupational performance and informed the director of behavioral/day program of the barriers at the day programs. Advocacy for proper positioning occurred through providing education to the staff and the consumers about positioning for walkers and wheelchairs. Several of the consumers questioned what I was doing because their walkers have been that height for many years. I had to explain to them what I was doing and the importance of the changes. After the explanation, all of the staff and consumers agreed to adjustments of their devices. Through the advocacy provided at GCS, the consumers benefited due to increased competency of the staff.

Overall, my time at GCS was beneficial for all involved including staff, consumers, and myself. The implementation phase included development of an accessibility proposal plan, development of the transfer training program, and adjustments to wheelchairs and walkers. The outcome included plans for accessibility changes in phases to increase accessibility for consumers, increased competency of staff for transferring consumers, and improved positioning and satisfaction from the consumers during functional mobility. These initiatives will help improve accessibility for consumers and competency of staff at GCS.

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## Appendix A

### Pre-/Post-Test for Transfers and Mobility Training

Name:

1. If you have to turn while transferring a consumer:
    a. Turn feet slowly, while not twisting back
    b. Twist back towards surface transferring to
    c. Cross your legs over the other
    d. Turn body towards surface transferring to in a fast motion
2. Best positioning for your feet during a transfer is:
    a. Close together
    b. Wide apart
    c. With heels touching together
3. To safely transfer a consumer, what should you do before completing transfer?
    a. Know the consumer's limitations and strengths
    b. Removal of environmental barriers
    c. Put arm and leg rests on
    d. All of the above
    e. A and B
4. The proper placement of gait belt is:
    a. Loosely over waist
    b. Loosely over chest
    c. Tightly over waist
    d. Tightly over chest
5. General positioning in wheelchair should include:
    a. Head positioned in neutral position
    b. Knees are bent to 100 degrees
    c. Toes are supported on the ground
    d. Back is partially against back of chair
6. Proper measurement for walker height includes:
    a. Measuring from crease of wrist to the floor
    b. When hands are on handles, elbow should be bent to 90 degrees
    c. When hands are on handles, elbow should be straight
    d. Measuring from hip crease to the floor
7. When transferring a consumer using a squat pivot transfer, the first thing you should do is tell the client what you are about to do.
    a. True
    b. False
8. Which of the following should be avoided when helping a consumer perform a transfer?
    a. Ensuring consumers' feet are on the floor, under their knees, and hip width apart
    b. To lean forward before standing up
    c. Allowing the consumer to put their hands around your neck during the transfer
    d. Using an assistive device such as a walker or transfer belt
9. Positioning for two-person transfer includes:
    a. Both transferrers in front of consumer

b. Both transferrers behind the consumer
c. One person behind consumer, and one person in front of consumer

10. Hoyer lift should be used:
    a. When nobody can help with transfer
    b. When consumer is agitated
    c. Someone is unable to support weight
    d. A and C

**Answer Key**

**1- A**
**2- B**
**3- E**
**4- C**
**5- A**
**6- A**
**7- A**
**8- C**
**9- C**
**10- C**

Appendix B

Handout for Hoyer Lift Transfer

# Hoyer Lift Transfer

ISSUE #05
March 15, 2019

## Contents



## Steps to Hoyer Lift Transfer

- Lay out sling under consumer with straps placed
  - Roll sling halfway up
  - Roll consumer on one side
  - Placement of sling under the consumer lined up with appropriate body parts
  - Roll consumer to back and roll to other side
  - Unroll sling and line up with appropriate body parts
- Attach straps to hooks
- After crossing straps, attach leg straps to hooks, ensure breaks are locked
- Lift consumer up until chair is cleared
- Move consumer so they are directly over surface transferring to
- Lower consumer slowly onto surface
- Once consumer is firmly on the surface, lower just enough to remove sling straps
- Remove sling from below consumer

## Components of Competency

| |
|---|
| 1. Good body mechanics used |
| 1a. Adjusts center of gravity according to height and weight of consumer |
| 1b. Maintains wide base of support |
| 1c. Gives adequate assistance while promoting maximal consumer participation |
| 1d. Does not twist spine |
| |
| 2. Sling use and operation |
| 2a. Examines the sling for durability |
| 2b. Loops positions |
| 2c. Demonstrates proper sling selection for the consumer |
| 2d. Demonstrates putting sling under consumer (lateral and seated) |
| 2e. Demonstrates sling leg support positions |
| 2d. Demonstrates use of limb lift |
| |
| 3. Portable lift operation |
| 3a. Locks wheels of lift |
| 3b. Demonstrates position of lift over consumer (patient legs toward the perpendicular support bar of the lift) |
| 3c. Demonstrates proper sling/loop attachment |
| 3d. Demonstrates operation/transfer of consumer: loop secure, lifting the consumer in sling, moving portable lift with consumer, lowering consumer to receiving surface |
| 3e. Demonstrates sling removal |
| |
| 4. Clear directions to consumer provided |

## References

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Appendix C

Handout for Two-Person Transfer

# Two-Person Lift Transfer

ISSUE #06
March 15, 2019

## Contents



## Steps to Two-Person Lift Transfer

1. Lock brakes of wheelchair and remove clutter and foot plates out of the way.
2. **First transferrer:** While standing behind the consumer, help cross their arms. Place your arms under the consumer's arms and hold onto their wrist.
3. **Second transferrer:** Place both of your arms underneath the consumer's lower thighs. Count to 3 to initiate lift.
4. **Both transferrers:** Bending at your knees, gently lift the consumer up at the same time.
5. Position the consumer appropriately in the chair being transferred to.




## Components of Competency

| |
|---|
| 1. Clear direction to consumer provided |
| 2. Good body mechanics used |
| 2a. Adjusts center of gravity according to height and weight of patient |
| 2b. Maintains wide base of support |
| 2c. Does not twist spine |
| |
| 3. Wheelchair positioned appropriately |
| 3a. As close to surface as can be to transfer |
| 3b. Wheelchair brakes engaged |
| |
| 4. Positioning of Transferrer 1 |
| 4a. Positioned behind consumer |
| 4b. Crossing of consumers arms |
| 4c. Placement of arms under consumer's arms and holds onto their wrists |
| |
| 5. Positioning of Transferrer 2 |
| 5a. Positioned in front of consumer |
| 5b. Placement of both arms under consumer's lower thighs |
| 5c. Counts to 3 to initiate lift |
| |
| 6. Safety precautions followed |
| 6a. Removes footrests |
| 6b. Removes armrest closest to surface transferring to |
| 6c. Removes clutter out of way of transfer |

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Appendix D

Handout for Squat Pivot Transfer

# Squat Pivot Transfer

ISSUE #04
March 15, 2019

## Contents



## Steps to Squat Pivot Transfer

1. Lock brakes of wheelchair and remove clutter and foot plates out of the way.
2. Ask consumer to scoot hips forward in chair, ensuring knees are bent to 90°and feet are on the floor.
3. With your back straight, squat down.
4. With your arms underneath their armpits, bring the consumer as close as you can to your body, blocking knees of consumer, and bringing consumer to a squat position with as much assistance from the consumer as possible.
5. Without twisting of your back, taking small steps and pivot towards the transferring surface.


## Components of Competency

| |
|---|
| 1. Clear direction to consumer is provided |
| |
| 2. Good body mechanics used |
| 2a. Adjusts center of gravity according to height and weight of consumer |
| 2b. Maintains wide base of support |
| 2c. Guards consumer correctly and effectively (e.g. blocking of feet, blocking of knees) |
| 2d. Gives adequate assistance while promoting maximal consumer participation |
| 2e. Does not twist spine |
| |
| 3. Wheelchair positioned appropriately |
| 3a. As close to surface as can be to transfer |
| 3b. Wheelchair brakes engaged |
| |
| 4. Safety precautions |
| 4a. Wheelchair leg rest removed |
| 4b. Wheelchair arm rest removed |
| 4c. Removes clutter in route of transfer |
| |
| 5. Scoots consumers hips to edge of chair with feet positioned appropriately for transfer |
| |
| 6. Consumer supported throughout transfer and consumer was squat-pivoted to transferring surface. After transfer, consumer is positioned appropriately |

## References

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Appendix E

Handout for Stand Pivot Transfer

# Stand Pivot Transfer

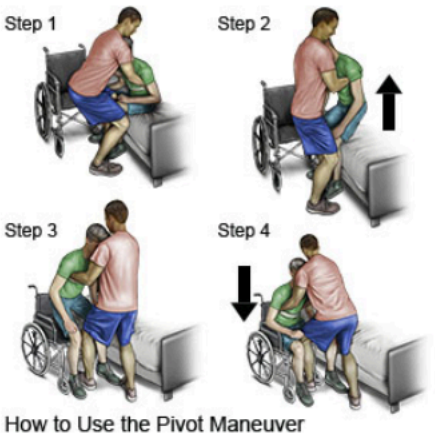
ISSUE #03
March 15, 2019

## Contents



## Steps to Stand Pivot Transfer

1. Lock brakes of wheelchair and remove clutter and foot plates out of the way.
2. Ask consumer to scoot hips forward in chair, ensuring knees are bent to 90°and feet are on the floor.
3. With your back straight, squat down.
4. With your arms underneath their armpits, bring the consumer as close as you can to your body, blocking knees of consumer, and bringing consumer to a stand with as much assistance from the consumer as possible.
5. Without twisting of your back, taking small steps and pivot towards the transferring surface.




How to Use the Pivot Maneuver

## Components of Competency

| |
|---|
| 1. Clear instruction provided to consumer |
| 2. Good body mechanics used |
| 2a. Adjusts center of gravity according to height and weight of consumer |
| 2b. Maintains wide base of support |
| 2c. Guards consumer correctly and effectively (e.g. blocking of feet, blocking of knees) |
| 2d. Gives adequate assistance while promoting maximal consumer participation |
| 2e. Does not twist spine |
| |
| 3. Wheelchair positioned appropriately |
| 3a. As close to surface as can be to transfer |
| 3b. Wheelchair brakes engaged |
| |
| 4. Safety precautions |
| 4a. Wheelchair leg rest removed |
| 4b. Wheelchair arm rest removed |
| 4c. Removes clutter in route of transfer |
| |
| 5. Scoots consumers hips to edge of chair with feet positioned appropriately for transfer |
| |
| 6. Consumer supported throughout transfer and consumer was stand-pivoted to transferring surface. After transfer, consumer is positioned appropriately |

## References

Orthopaedic & Neurological Rehabilitation Inc. (2018). The restorative nursing program. Retrieved from https://www.onr-inc.com/images/Resources/RNAManual/RestorativeNursingTraining_Manual.pdf

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Appendix F

Handout for Walker Use

# Walker Use

ISSUE #01
March 15, 2019

## Contents



## Who needs a walker?

- Individuals who are aging
- Have trouble rising from sitting position
- Someone who is a fall risk
- Individuals with low endurance

- Difficulty with mobility
- Poor balance

## Types of Walkers

- Standard Walker
  - Offer maximum support for walking
  - Works well indoors
  - Must be lifted for uneven surfaces

- Rolling Walkers
  - Less stable than standard walker
  - Faster pace than standard walker
  - Easier to move outside

- Rollator
  - Wheels on the bottom of each leg
  - Walking aid when need little support
  - Easy to push
  - Good for someone with low endurance

- Walker Accessories
  - Walker Glides
    - Increases ease of glide on the floor
    - Types: Skis, Tennis ball, caps


  - Walker Bags
    - Allows carrying of items without increasing risk of falls

# Walker Use

ISSUE #01
March 15, 2019

- Walker Trays
  - Allows to carry items on flat surface
  - Decreases fall risk if trying to carry items

## Measuring for Walker

- Stand up straight with your shoes on
- Allow arms to lie at sides
- Measure from crease of wrist to the floor
  - This length should be the height of your handle
- Get a walker that is able to be adjusted to one inch lower and higher than measured height
  - Allows ability to adjust height


## Mobility with Walker

- Tips
  - Ensure walker is correct height
  - Stand up straight
  - Body should not touch front of walker
  - Push up from chair to stand up

1. Move walker forward about 12 inches in front of you

2. Step with foot halfway through walker

3. Bring other foot to meet other foot

4. Repeat Steps 1-3

## References

JustWalkers. (2019). Tips & advice center: Walkers. Retrieved from https://justwalkers.com/walkers-tips

Pendleton, H. M. & Schultz-Krohn, W. (Eds.). (2017). *Pedretti's occupational therapy: Practice skills for physical dysfunction* (8th ed.). St. Louis, MO: Elsevier Mosby.

Zhao, Y., Salem, Y., Li, M., Master, H., & Liu, H. (2015). Comparison of Surface Landmarks for Measuring the Individualized Height of Rolling Walker. *Physical & Occupational Therapy in Geriatrics*, *33*(2), 128–138. doi: 10.3109/02703181.2015.1009228

Appendix G

Handout for Wheelchair Use

# Wheelchair Use

ISSUE #02
March 15, 2019

## Contents



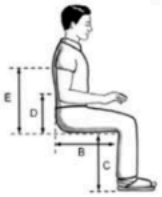
## Importance of Wheelchair Positioning

- Increases independence
- Promotes safety
- Prevents pressure sores
- Prevents deformities and contractures

- Provides comfort
- Enhances quality of life

## Positioning in Wheelchair

- Back and butt against the back of the chair
- Position head and trunk in neutral position




- Shoulders slightly flexed, hands placed palm down
- Hips and knees are both bent to 90 degrees
- Feet are flat on floor or footrests

## When to Consider Wheelchair Use?

- Consumer is non-ambulatory
- Decreased safety with walking
- Assistance needed for ambulation
- Increased time for ambulation
- Unable to ambulate throughout day

# Wheelchair Use

ISSUE #02
March 15, 2019

## Types of Wheelchairs

- Standard Wheelchairs
  - Most economical
  - Allow to propel self
  - Requires good trunk and head control
  - Used for long distances for those who ambulate

- Electric Wheelchairs
  - Allows independent mobility for those who cannot self-propel
  - Use will increase independence in daily activities

- Tilt in Space
  - Dependent for mobility
  - Allows pressure relief for consumer
  - For poor head and trunk control

- Reclining Wheelchairs
  - Opens hip angle
  - Reduce risk of pressure sores
  - Consumer able to complete weight shift
  - Allow for catheterization

- Wheelchair Accessories
  - Wheelchair Tray
    - Allows for feeding, working, reading, or other activities

  - Mount for Communication Device
    - Allows for use of device without table surface
    - Correctly positioned for use while in wheelchair

  - Wheelchair Cushions
    - Helps redistribute pressure
    - Provides comfort and protection

  - Bags
    - Allows individual to store things they need to carry with them

  - Cup Holders
    - Allows ability to transport drink while in wheelchair