

DEPARTMENT OF OCCUPATIONAL SCIENCE AND OCCUPATIONAL THERAPY
FACULTY OF MEDICINE
UNIVERSITY OF TORONTO



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Occupational Therapy
with Children
Part II

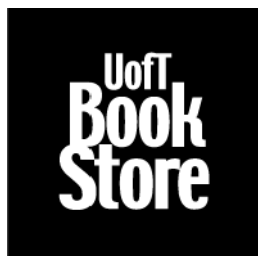
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THE “HANDY” DRINKER

Ahuva Katzman and Melanie Teplinsky

Abstract

For many individuals with hand weakness, loss of range of motion, motor control problems and tremors, engaging in the occupation of drinking can be difficult. Problems with drinking occur in diverse populations of individuals with varying diseases and disorders including; rheumatoid arthritis, Parkinson’s, hand injuries etc. It is vital that the ability to drink be addressed in these populations as it is an occupation that is essential to life. The “Handy” Drinker is a two handled adjustable cup holder with a removable neck strap, which will allow individuals to hold their cup with ease while drinking. The handles are large in size, accommodating for adult fingers and allowing for an open handed grasp. Velcro straps securing the cup, adjust to any cup size. The neck strap can be added to the cup holder if needed, in order to allow for hands free drinking with the addition of a long straw. In line with a compensatory/environmental theory, occupational therapists may recommend this device to facilitate ease of drinking, while reducing fatigue, pain and discomfort and increasing occupational performance; thus allowing individuals to adapt to their limitations by learning new methods for completing this task and compensating for their loss of skill. It is recommended that The “Handy” Drinker be evaluated by assessing for improvement in quality of life as well as by administering the Canadian Occupational Performance Measure (COPM) (Law, Baptiste, Carswell, McColl, Polatajko, Pollock, 2000), both pre and post intervention to evaluate client performance and satisfaction with the device.

PET GROOMING BRUSH FOR INDIVIDUALS WITH C5-C6 TETRAPLEGIA

Alda Melo and Keely Slessor

Abstract

Occupation, an important determinant of health and wellbeing, can be disrupted by the relationship between persons and their environment (CAOT, 2002). Individuals with C5-C6 spinal cord injuries have decreased active upper extremity movement, which makes it difficult for them to use many conventional designed products. Occupational therapists working with this population have to choose whether to intervene at the person or environment level to enable occupational engagement. A case study of a woman with a C5-C6 spinal cord injury who cannot engage in the productive activity of pet grooming, as a consequence of not being able to use a conventional dog brush, will be presented. Applying an environmental determinants of occupation approach (McColl et al., 2003) a modified brush was designed. The modified brush is circular in shape and fits into the palm of the individual's hand. On the backside of the brush, an adjustable Velcro® strap is attached. The individual is able to slip their hand through the strap and use their teeth to adjust the strap as required. With the brush firmly attached to their hand, the individual is able to brush their dog while it is sitting in their lap, therefore engaging in a meaningful productive occupation of their choice. It is recommended that this pet grooming brush be evaluated using the Canadian Occupational Performance Measure (COPM) (Law et al., 1998) to assess the client's perceived change in occupational performance and satisfaction with performance.

TOUCH TYPE CELLULAR PHONE CASE FOR INDIVIDUALS WHO ARE BLIND OR VISUALLY IMPAIRED

Aldith Dawson and Nykema Wright

Abstract

Although cell phones are a part of everyday life, most are not designed with the blind or visually impaired in mind. The American Foundation for the Blind (AFB) surveyed the blind and visually impaired communities to determine which cellular phone features they would most like to have made accessible. “Keys that are easily identifiable by touch” tied for first place with two other features (AFB, 2006). However, manufacturers have not developed adequate solutions to facilitate tactile identification of keys. The Touch Type cellular phone case addresses this need by providing a simple solution that makes the cellular phone accessible to the blind and visually impaired. The Touch Type phone case will enhance the occupational performance of cellular phone communication by improving the fit between person and physical environment components. This adaptation approach capitalizes on an individual’s residual abilities as a means to compensate for limited or absent visual ability. The plastic overlay for the keypad will feature raised Braille symbols representing each of the keys on the navigation and number pads. This device may be designed for flip or open-faced phones. The purpose of the Touch Type phone case is to enable individuals who are blind or visually impaired to perform basic cellular phone functions including making and receiving phone calls and accessing common features. To evaluate the effectiveness of this device, self-reports (i.e. survey, checklist, interview or usage log) may be used to determine whether the device actually made the phone more accessible based on increased level of usage.

The Bow-Tie Kit: Enabling shoe-lace tying for children

Mary Clarke and Amanda Dam

Abstract

Shoe-lace tying is seen as an important step to independence and an essential self-care occupation for school-aged children. Unfortunately, learning how to tie shoes can be a frustrating experience, especially for children with visual perceptual, fine motor, motor planning, and/or coordination issues. Children and parents often identify shoe-lace tying as a priority for occupational therapy treatment. The aim of the “Bow-Tie Kit” is to reduce the demands of shoe-lace tying. The kit includes Velcro® attachments which convert a standard lace-up shoe into a Velcro® fastened shoe. The kit also includes adapted dual-colored laces (e.g. half red and half white) to reduce the challenge of visual perception and motor planning. The laces correspond in colour to “toggles” attached to the top eyelets of the shoe, which provide a visual anchor. To decrease the fine-motor and bimanual coordination of the task, one end of the lace has snaps sewn on which may be snapped shut to form the first loop required to complete a bow. The “Bow-Tie Kit” is available in a variety of colour combinations with a variety of different “toggle” shapes (e.g. bears and flowers) thus increasing the child’s motivation, making shoe-lace tying fun, and increasing social acceptance by peers. It is recommended that this kit be evaluated by assessing the change in the child’s before and after ratings of the performance and satisfaction scales of the Canadian Occupational Performance Measure.

THE “TIDY CADDIE” – ORGANIZING THE DISORGANIZED LEARNER

Amanda Garnett & Tatum Wilson

Abstract

Disorganization has long been considered a serious barrier to success for children with learning disabilities. When children are disorganized they tend to become less focused and are unable to take part in homework or class lessons, as they are not able to find the necessary materials to participate. In order for a child with a disability to succeed in the school setting environmental modifications are often beneficial. Occupational therapists can implement such environmental adaptations to aid in the enhancement of a child’s academic performance and improve their comfort level with a task or occupation. The Tidy Caddie is a simple device that can be placed inside a student’s desk to enable occupational performance in the classroom setting. A child with a learning disability will benefit significantly from the Tidy Caddie, as it will allow them to keep loose paper, binders, pencils, erasers and other class materials organized in separate compartments. When called upon to complete classroom work, the child can pull their Tidy Caddie out from their desk and easily access all the materials necessary for the task. Having all class materials organized will enable the child’s independence and allow him or her to participate in school activities and classroom lectures. The Tidy Caddie will improve the Person-Environment-Occupation Fit of the disorganized child by organizing the child so that he or she is able to easily locate all materials necessary for participating and learning in the classroom setting. Furthermore, the Tidy Caddie will allow for simple replacement of the materials back to the same location to maintain an organized working environment. It is recommended that the Tidy Caddie be evaluated by assessing for frequency of homework completion and classroom participation.

MODIFIED MAKE-UP FOR THE ELDERLY

Andrea Carson

Nancy Mirza

Abstract

Age-related changes, including visual impairments and arthritis, have a significant impact on occupational performance of the elderly. Self-care is an important aspect of daily living that contributes to self-esteem and quality of life. Self-care activities, including the use of cosmetics, can be challenging for the elderly as a result of visual impairments and arthritis. The aging eye requires greater intensities of colour for perception to occur, resulting in over application of cosmetics and inappropriate use of colours. Decreased visual acuity makes it challenging to read cosmetics labels and use standard cosmetic mirrors. Arthritis typically affects the hands and leads to joint pain and stiffness. Pain and cramping in the wrist and fingers makes it difficult to grasp and manipulate cosmetic application brushes, and to open cosmetic cases. Designing cosmetics that enable individuals with visual impairments and arthritis to apply cosmetics in an easier, more comfortable, manner supports OT's framework of enhancing occupational performance. OTernal (Carson & Mirza, 2006) is a cosmetic line specifically designed with this purpose in mind. Products include easy to open cosmetic casings, magnified mirrors, wide grip application brushes, colour intensified packaging to compensate for decreased colour perception, and comprehensive and large print colour descriptions. OTernal (Carson & Mirza, 2006) takes into consideration age-related challenges, thereby enabling competent application of cosmetics in the elderly, which leads to increased independence and self-esteem. The effectiveness of OTernal (Carson & Mirza, 2006) can be evaluated through self-report measures on product usability, self-esteem, and quality of life.

CAPTAIN GOAL-PLAN-DO-CHECK

Anna Maria Vogiatzis and Laura Cooper

Abstract

Difficulties experienced by children with motor-based learning disabilities “may in part be due to an impaired ability to use cognitive strategies to solve **occupational** performance problems” (Sangster, Beninger, Polatajko, & Mandich, 2005, p. 67). Embedded within a learning paradigm, Cognitive Orientation to Occupational Performance (CO-OP) is a performance-based, problem solving approach that enables skill acquisition through a process of strategy use, and guided discovery (Polatajko & Mandich, 2004). In CO-OP, a puppet is used as a visual mnemonic device to teach strategy use. Use of a puppet supports a nondirective approach, encouraging the child to discover their own solutions, thus enhancing self-esteem, mastery, resourcefulness and independence. Traditionally, a puppet of any sort has been used, provided “the child can relate to it and some story can be created about the puppet’s special talents for solving performance problems” (Polatajko & Mandich, 2004, p.69). Emerging from the CO-OP framework, “Captain Goal-Plan-Do-Check” is an assistive device that promotes learning through play. This adapted learning device is a super-hero persona equipped the following: a) GOAL-PLAN-DO-CHECK insignia – reinforcing mental imprinting of a visual mnemonic; b) a recording device – prompting specific strategies via verbal cueing; c) a variety of fasteners provide functional practice of the fine motor skills. “Captain Goal-Plan-Do-Check” can be used in therapy or independently. Its use is expected to enable the child to enhance their task performance and promote skill development. It is recommended that this learning device be evaluated by assessing skill acquisition through a daily activity log documenting change in performance, and through the use of the Performance Quality Rating Scale (PQRS).

The 'Tubular'

Lauren Hershfield & Behdin Nowrouzi

Abstract

Many people experience difficulties with grasp, including those who have repetitive strain injuries, post tendon, nerve or crush injuries, replantations or transplantations, arthritides (rheumatism, juvenile arthritis) and congenital abnormalities (McKee, lecture, 2006). There are numerous prefabricated built up utensils on the market, however high prices make them unaffordable. After acquiring a disability, it may seem daunting to a persons to have to purchase a large number of utensils, no longer able to use already owned utensils. In an effort to combat purchasing new kitchen utensils, many people choose to use foam tubing to build up pre-existing utensil handles. These designs have been shown to be difficult to get on, forcing someone with already limited hand function to push and pull tubing until it reaches the desired location on the utensil. As well, they are not adjustable. The 'Tubular' provides an assistive device that easily wraps around *any* utensil surface, to make grasp most functional, to enable independent eating. This will facilitate an individual to use any utensil, whether in a restaurant, at a friend's house, or in their own environment, without having to bring along a selection of foam tubing in different sizes. It will also decrease the frustrations of the pushing and pulling of the foam tubing, with its opening and closing mechanism, with an easy wrap and click to get on. Utilizing equipment such as the adjustable foam padding can be used to enable performance by modifying the user's environment. The device can be evaluated by assessing for improvements in eating, and through the use of interactive feedback from users.

ADAPTED KNITTING KIT

Zahra Jamal and Brenda Dorey

Abstract

The Arthritis Society of Canada estimates approximately 1 in 6 Canadians suffer from some form of arthritis. The joints of the hands and wrists are commonly affected by arthritis, which can often lead to pain in these joints. Individuals with arthritis will frequently give up leisure occupations that involve use of the hands and wrists, such as knitting, as the activity becomes painful and difficult due to the stress placed on these joints. The adapted knitting kit has been specifically designed to decrease the load on the affected joints and therefore minimize pain. Thus, the adapted knitting kit will enable individuals with arthritis to continue participating in the meaningful occupation of knitting, which is in line with the enabling philosophy of occupational therapy. The design of the kit is based on biomechanical principles, as the assistive devices included in the kit will facilitate individuals with decreased grip strength and activity tolerance to once again participate in this leisure activity. The knitting kit contains enlarged grips that can be positioned on the knitting needles and a grip that can be placed on the yarn to enable manipulation of the yarn as required. These items can be used individually or in combination to provide the best relief of arthritis symptoms. The knitting kit will be determined to be effective if individuals who suffer from arthritis are able to use the kit to knit with decreased pain.

THE BETTER BATH SPONGE

Colleen Ross and Carolyn Taylor

Abstract

The purpose of this adapted long-handled bath sponge is to decrease the reach required when bathing and to enable a more thorough wash of the body. The bath sponge will be length-adjustable to accommodate for variances in individual leg length and reaching abilities. The handle will be plastic and adjustable with a large, easy to press button and slot mechanism to vary the length. The sponge end of the handle will be hollow to allow for individuals to fill it with body wash. This will eliminate the risk of dropping soap or the need for soap on a rope. The bath sponge will come with two styles of sponges; one, a standard *peanut* shape, the other, a triangular shape to allow individuals greater access around their toes. The person-environment-occupation (PEO) model provides the theoretical foundation for this product (Law, Cooper, Strong, Stewart, Rigby, and Letts, 1996). Consumers identified problems with current bath brushes in Mann and Tomita (1998) which illustrated poor fit between the person, the consumer, and the environment, the assistive device. The new design changes the environmental characteristics by lengthening the handle, eliminating the need for a bar of soap, and allowing the consumer to clean all areas of their body. The PEO proposes that by bettering the fit between the person and the environment, occupational performance will be improved. This change in occupational performance was evaluated using client satisfaction with bathing as measured by the Canadian Occupational Performance Measure (Law, Baptiste, Carswell, McColl, Polatajko et al., 1991).

ACCESSIBLE TTC FARE-PAYMENT SYSTEM: TOKENSHUTE

Silvia Bernal and Daniella Pratt

Abstract

Although fare payment is a prerequisite of using public transportation, the current method used is challenging for some individuals. To pay a subway fare, a dime-sized token, must be accurately placed into a slot just greater than the size of the token. This requires proficiency in pincer grasp, in-hand manipulation, upper-extremity motor control, motor planning and target accuracy skills. Individuals who struggle with these requirements experience a compromised ability to use TTC services, leading to decreased participation in meaningful activities. Taking a Person-Environment-Occupation perspective (Law et al., 1996), the current system creates a mismatch between some user's capabilities and the physical task demands. According to the Accessibility for Ontarians with Disabilities Act (2005), the TTC must re-evaluate their transit-fare collection system to accommodate the needs of its users. If TTC took this into consideration and the demands of fare-payment were altered, better congruency between the user, the environment and the occupation would result. Ultimately, this would lead to increased engagement in occupational participation for more users. One solution would be to bolt a TOKENSHUTE onto the existing token fare-slot. The TOKENSHUTE is a funnel like device with a wide diameter top and narrow base. Because the device narrows it creates a channel that accurately directs a token into the fare-slot. Thus, by adapting the environment, the device's purpose is served: an accessible means to deposit TTC fares. To evaluate the efficacy of the TOKENSHUTE in increasing person-environment-occupation congruency, a method of summative evaluation will be used.

THE ULTIMATE LOTION APPLICATOR

Elisa Agnoletto & Lisa Purdie

Abstract

Some occupational therapy goals are centred around activities of daily living (ADLs) which include self-care activities such as lotion application. Difficulty with lotion application can be caused by decreased range of motion or strength due to arthritis, fibromyalgia, injury, surgery or other physical conditions. Enhancing the occupational performance of lotion application has the potential to increase the quality of life because many of these individuals apply lotion for cosmetic, moisturizing, or medicinal purposes. On the market there are currently lotion applicators with handles that are inflexible and sponges that soak up the lotion, decreasing their usability for consumers. The Ultimate Lotion Applicator is a device that assists in the application of lotion to difficult to reach areas such as the back and/or feet. This adaptive device is composed of a long handle that can be curved to more easily reach the back and straightened to reach the lower legs and feet. The Ultimate Lotion Applicator would allow the individual to apply lotion with minimal flexion and internal rotation of the shoulder. The applicator is made of a material that allows it to mold to the contours of the body and apply lotion evenly by maintaining pressure without soaking the lotion up like a sponge. In addition, this device will consist of a built-up grip to allow for sufficient pressure and precision in lotion application. This assistive device will be evaluated using the COPM and consumer trials by comparing The Ultimate Lotion Applicator with other lotion applicators currently on the market.

THE OSTEOARTHRITIS MODIFIED WEED-PULLER

Chantal Sampson and Hricha Rakshit

Abstract

Many older adults suffer from osteoarthritis, which is a degenerative condition that affects the mobility of the joints and often culminates in pain and restricted movement. Gardening is described in older adult literature as harnessing powerful effects on the spiritual and occupational well-being of this population. While older adults continue to enjoy the leisure occupation of gardening, many do so enduring osteoarthritic pain. The enabling document issued by the Canadian Association of Occupational Therapists (CAOT) (2002) states that it is important for older adults to be able sustain leisure activities that are meaningful. Further, at the centre of occupational therapy philosophy is having the ability to choose meaningful occupations and satisfactorily perform them (CAOT, 2002), as in the case of regular gardening activities. Weeding was identified as a regularly performed gardening activity that often aggravates osteoarthritic joints. Therefore, the osteoarthritis modified weed-puller was designed to establish a congruent match between an older adult's physical abilities and the occupational demands of weeding. Modifications to the weed puller consisted of padding, elongating and changing the grip of the handle, providing a foot plate for stability, and providing an adjustable mechanism for changing its height. These alterations hope to optimize an older adult's occupational performance through modifying the body's biomechanics during regular garden weeding. It is recommended that the effectiveness of the osteoarthritis modified weed-puller be determined by client verbal feedback and photographs of a client using the prototype while adhering to the proposed biomechanical principles of using this device.

Porta-Seat

Cathy Auerbach and Tammy Balaban

Children with athetoid cerebral palsy experience fluctuations in tone and spasticity, and require postural stabilization for functional pursuits. Without a supportive seating system, these children develop compensatory strategies that are uncomfortable, lead to poor posture and stability, and ultimately limit their occupational performance (Case-Smith, 2005). The purpose of our seat is to provide these children with a seat that is portable, can be placed on a regular chair, is comfortable and provides adequate postural and pelvic support. The seat will be made of light weight wood, have a durable vinyl strap around the child's lateral and anterior chest area, as well as a padded pommel, which will fit between the child's legs to prevent forward sliding. This adaptation is relevant to occupational therapy, which commonly uses seating interventions to compensate for children's poor pelvic control, trunk control and seating posture to enhance functional independence (Schuch et al, 2000). The seat was conceptualized using a biomechanical model of practice, as well as a compensatory approach. The biomechanical approach addresses neuromuscular or musculoskeletal needs and recommends different positioning to enhance occupational performance (Case-Smith, 2005). The compensatory approach emphasizes modifying or adapting the environment and/or task in a way that compensates for the limitations of the person (Case-Smith, 2005). To evaluate the effectiveness of this device, the COPM will be administered with a child with athetoid CP and his/her parent(s). In addition, the child using the seat will be observed during functional activities to assess his/her posture and stability.

THE EASY DRY HAIRDRYER

Lynne Dart and Vivien Chan

Abstract

This modified hairdryer enables individuals of different age groups with varying levels of difficulty to successfully dry their hair with minimal effort and discomfort. This hairdryer has a hairbrush attachment with longer bristles to facilitate brushing and straightening of one's hair. The dryer is set at a low heat to optimize comfort and prevent burning of the scalp. It has an expandable handle attachment (which can be shortened and manipulated in various directions) for adaptability to people with varying ranges of motion. Wall-mounted models on the market are difficult and laborious to use. For example, people with limited neck range of motion must constantly alter their neck position to dry the entire head. Individuals requiring wheelchairs must constantly reposition the chair to dry hair completely. This hairdryer solves these and many other problems with its versatility. A well-known theory in occupational therapy is the Person-Environment-Occupation (PEO) Model (Law et al, 1997) which emphasizes optimizing the "fit" between a person, their environment and occupation. A greater fit between these domains is congruent to the level of satisfaction and functioning an individual enjoys. External modifications such as an assistive device can enhance this fit. This modified hairdryer will increase the PEO fit and thus allow for greater gratification and independence within a person's self care routine. This hairdryer could be evaluated by trialing it with a sample of individuals with and without disabilities and measuring for improved performance and satisfaction with grooming through the Canadian Measure of Occupational Performance or narrative report.

THE “CONDOM APPLICATOR” FOR MALES WITH FINE MOTOR DEFICIENCIES

Juana Lepelli and Sarah Noy

Abstract:

Sexuality is an essential component to the quality of life and healthy living of all individuals. Sexual satisfaction and functioning are imperative to the overall well-being of individuals with physical limitations, however their sexual needs are not commonly addressed and are often overlooked (Taleporos, Dip & McCabe, 2002; McCabe, Cummins & Deeks, 2000). The purpose of this device is to assist males with limited upper extremity function and decreased fine motor skills to independently and efficiently don a condom. The device will have an adjustable ring with a groove that will hold a condom in place while it is being rolled onto the penis by the user. It will have a built up handle to promote functional grip and a quick release button so that the device can be easily removed without damaging or disrupting the condom once in place. A compensatory adaptation approach will be utilized to enable adult males to don a condom independently. It is appropriate for occupational therapy to address the issues of sexuality because it takes a holistic approach with each intervention (Couldrick, 1998a). Sexual expression is an occupational therapy role since it is an essential component of self-care (Northcott & Chard, 2000). It is also suitable for occupational therapists to address sexual issues as they are educated and trained in the areas of biological and behavioral sciences, various disabilities, communication and problem-solving skills. This device will be evaluated by having the client trial its effectiveness and efficiency to determine level of satisfaction.

THE SEATBELT AID

Jennifer Kim & Sandeep Marwaha

Abstract

Seat belt usage is critical for reducing injuries in motor vehicle accidents; however, difficulties with putting on a seat belt can reduce the likelihood of usage. Particularly, some older adults or adults with impaired hand function, resulting from co-ordination issues, muscle weakness, low vision, or arthritis may experience challenges with seat belt use. The SeatBelt Aid is designed to facilitate seat belt use and promote independence in motor vehicle travel for drivers and passengers. Basic biomechanical and sensory processing principles have informed the preliminary design of the device in response to the needs of the targeted population. The SeatBelt Aid is a light-weight, portable device with two components: (1) SeatBelt Tongue Grip; (2) SeatBelt Buckle Guide. The SeatBelt Tongue Grip is a modified handle that attaches to the tongue component of the seatbelt. The device is composed of closed-cell foam and coated with non-slip material to ensure a firm grip. Its large surface area helps reduce the amount of force required to pull the belt. The SeatBelt Buckle Guide is a thermoplastic insert that extends from the buckle of the seatbelt. It serves as an external physical cue to provide sensory feedback to facilitate sliding the seatbelt tongue into the buckle slot. The SeatBelt Aid takes on a compensatory to address the motor vehicle environment by enhancing the physical components of the seatbelt to enhance the comfort and independence of passengers' travel experiences. Evaluation will involve pilot testing with volunteers recruited from the Patient Partners of the Arthritis Society.

‘WATERBUDDY’ FOR CHILDREN WITH ASD

Jennifer Ombac & Lizna Husnani

Abstract

Communication impacts all dimensions of a young child’s life from expressing one’s ideas, wants and needs to playing and forming friendships with peers, as well as gaining and exerting control over ones own environment. Children with Autism Spectrum Disorder (ASD) often face severe expressive communication delays and rely on augmentative and alternative communication (AAC) systems to assist with these communication deficits. Most often, picture-based communication boards are used with individuals with ASD to replace or supplement insufficient communications skills. Anecdotal evidence suggests that the current use of this device is not portable to contexts that require exposure to water such as bathing and swimming. Occupational therapists can assist in the provision of such devices to enable meaningful participation in swimming and bathing activities for children with ASD. The ‘WaterBuddy’ (Ombac & Husnani, 2006) is designed specifically to minimize difficulties with communication skills experienced with individuals with ASD during occupations of bathing and swimming. The WaterBuddy is a made specifically from material that allows it exposure to water as well as attachable suction cups to be placed on bathroom wall during bathing activities and floatation devices for use in the swimming pool. From an environmental perspective, this product will address the unmet communicative needs of a child with ASD in the child’s natural environment (i.e., bathroom and swimming pool). The efficacy of this device is best evaluated using the Canadian Occupational Performance Measure with the parents, before and after implementation of this AAC system to identify change in satisfaction and performance in swimming and bathing occupations for the child with ASD.

EZ Undies to Maintain Privacy and Independence

Marcia Hopcraft and Jennifer Holmes

Abstract

Limitations in energy, movement, or range of motion (ROM) often result in difficulties with activities of daily living, leading to dependence on caregivers or assistive devices. Dependence in personal care activities can be particularly embarrassing for individuals and can significantly impact their dignity. EZ Undies have been designed to alleviate this undue emotional discomfort and maximize autonomy. EZ Undies are underpants that open and close at each side with Velcro strips. They are made with a cotton-spandex material for comfort and are available in various sizes and styles for men, women, and children. For those who have poor grip strength or reduced fine motor skills, loops are attached to the Velcro, allowing the user slide their finger into the loop and easily pull open the underpants. Persons with ROM limitations resulting from stroke, hip/knee surgery, pain, or arthritis would use this garment to eliminate the need to bend to put on underpants. Use of a reacher which requires precise manipulation, new learning and motor planning, is also eliminated making them particularly ideal for those with executive dysfunctions or dyspraxia. Individuals with limited energy such as those with Fibromyalgia, Multiple Sclerosis, or post surgery exertion limitations will also benefit from this design as it minimizes the amount of exertion required by reducing the physical demands of the task. Finally, all users, especially teens, will appreciate EZ Undies as they afford them the privacy and dignity they covet.

THE GLOVE GRASPER

Monika Cameron and Vanessa Hawes

Abstract

Everyday bilateral upper extremity tasks are performed in the course of our activities of daily living (ADLs). Disorders or injuries, such as hemiplegia, amputations, fractures, and burns, affect people of all ages and can result in the dysfunction of one upper extremity. This impacts one's ability to complete bilateral tasks, making ADLs a challenge. Regardless, individuals seek to achieve independence with ADLs, including dressing. Dressing for cold temperatures is a necessity during Canadian winters to prevent frostbite in exposed tissue. Therefore, a device that enables individuals with unilateral upper extremity function across the lifespan to independently don and doff winter gloves will be developed. The 'Glove Grasper' (Cameron & Hawes, 2006) will be small, portable, and available in both paediatric and adult sizes. A wooden base will prevent the glove grasper from moving while the individual places their palm over the contoured top of the wooden hand, pulling their hand down to remove the glove. Easy to use clips at the base will keep the glove in position as the individual slides their hand up through the opened glove when donning. This device will enable individuals with unilateral upper extremity function, of any age, to don and doff their gloves independently. The glove grasper accomplishes this goal by altering the environment, thereby optimizing the fit between individuals and their environment during the occupation of outdoor dressing. Evaluation of the glove grasper is recommended by observing clients don and doff gloves and using the Canadian Occupational Performance Measure (COPM).

”Swipe It” for children with CP who drool

Nadia Abdel_Hafez and Lisa Purdy

Approximately 1/3 of those children with cerebral palsy (CP) suffer from drooling (sialorrhea). Drooling in children and adolescents with cerebral palsy is often accompanied by several psychosocial stigmas. Resultantly, drooling can have a considerable impact on a child’s occupational performance and quality of life. Social isolation, embarrassment, caregiver burden, barriers to education and decreased self-esteem are implications arising from drooling (Suskine & Tilton, 2002). Drooling is not regarded as socially acceptable and may heighten ‘differentiation’ of a child with CP from their peers. Occupational therapists are able to offer this population with a non-invasive option to facilitate social acceptance and occupational performance. Swipe IT are adapted ‘wristguards’ designed specifically for children aged 8 and older. We recommend that they be used by those who are at a higher level of cognitive functioning, as it requires the child to be able to understand that their chin is wet and be able to wipe it dry using Swipe It. Swipe It is designed appear like everyday accessories or garment of clothing. The garments will be fabricated with a lightweight, fast absorbent, non-irritating, breathable and machine washable material. Swipe It will be available in popular colors and trends to cater to individuals preferences. Darker colors will be available as they will be easier to maintain and clean. Swipe It uses an environmental compensatory approach to address psychosocial implications that arise from drooling in children and adolescents with CP. The product will be evaluated through discussions between caregivers and users, in addition, to assessing for satisfaction with occupational performance using the COPM.

GOOD VIBRATIONS GOLF CLUB GRIP

Paul Furtado and Louis Zavodni

Abstract

Arthritis – both osteoarthritis and rheumatoid arthritis – is a very common condition in adults that often affects the joints in the hand, specifically the carpometacarpal (CMC) joint of the thumb (Buckner, 2001). Many golfers suffer from arthritis, which can be a limiting factor influencing their occupational performance as the hands experience vibration causing pain and discomfort when the club strikes the ball. The purpose of an adapted golf club grip is to decrease pain and discomfort in the hands of clients suffering from arthritis by facilitating enhanced grip positioning to optimize their occupational performance when playing golf, as well as decreasing discomfort after the game. The device follows a similar structure to that of a conventional golf club grip with the addition of two outpouchings located on either side of the grip for the thenar eminences of either hand. These act to support the thumb as well as distribute the force and the vibration of the club over a larger surface area. The grip is composed of rubber and foam to provide force absorption and comfort. As occupational therapists we often use client-centered approaches that attempt to optimize occupational performance by incorporating the person, their environment and their chosen occupations (CAOT, 1997; Law et al., 1996). It is of utmost importance to find ways for clients to engage in their occupations and through the use of this adaptive device clients will be able to meaningfully participate in an occupation that was previously inaccessible. It is recommended that this device be evaluated by the client providing self-report ratings on performance and their satisfaction in performance through the use of the Canadian Occupational Performance Measure (COPM).

THE PONYTAIL HELPER FOR PEOPLE WITH LIMITED FINEMOTOR SKILLS

Julie Hillier and Shannon Van de Ven

Abstract

Self-care is highly regarded in our society and often taken for granted amongst able-bodied persons. The ability to style ones own hair, especially among adolescents, is an important part of their daily self-care routine. It defines who they are within their group of peers and is a means of expressing oneself through appearance. The Ponytail Helper is designed using a cloth headband that fits circumferentially around the head. Lined with hook Velcro to ensure hair lies flat, when strings are pulled, the headband folds in on itself gathering all the hair in the process. The purpose of this device is to assist youth, with limited or no fine motor control in one hand, to independently put their hair up into a ponytail. This device will maximize independence, providing a sense of accomplishment and self-esteem within clients. This is a self-directed and client centered device that is designed to enhance the client's skills and existing abilities. Designed using a compensatory approach, this device will help match the demands of the task with the abilities of the individual in order to promote occupational performance. Compensation strategies and task and environmental adaptation will be used to accommodate for the difficulties encountered. These approaches in combination will increase the ability of the individual to successfully carry out the task of independently putting their hair up into a ponytail. It is recommended that the Ponytail Helper be evaluated within a group, testing for ease of use and client satisfaction.

MEMORY AND SENSORY BLANKET FOR INDIVIDUALS WITH ALZHEIMER'S DISEASE OF DEMENTIA

Lyndsay McTaggart & Shannon McCready

Abstract

The complexity of care for clients with dementia and Alzheimer's necessitates individualized approaches to helping engage them in occupations within the long-term care setting. These clients often experience behavioral issues (e.g., wandering or aggression) as a result of inappropriate stimulation in their environment. They may also experience memory loss. The goals of the memory and sensory blanket are to provide appropriate stimulation to mediate and/or prevent negative behaviours and prompt their memory. This may facilitate participation in self-care activities (e.g., eating) and leisure activities such as socializing with family. Individuals living with these diseases often retain some recognition of things that were part of their daily lives prior to their illness. The blanket will have a series of clear pouches in which to place photos that can remind clients of who they are and what is meaningful to them. In addition, it will incorporate fabrics of various colors and textures and have pockets to store aromatherapy and weights that are appropriate to the sensory needs of the individual. Unlike other products on the market, this product amalgamates memory and sensory stimuli in an individualized manner for clients. Using the Canadian Model of Occupational Performance, individualized occupational performance issues can be identified and prioritized and addressed through the use of photos, aromatherapy and weights. The blanket can be continuously changed to accommodate the progressive nature of dementia and Alzheimer's and in response to the dynamic environments in which the clients live.

MEMORY QUILT

Shelly Dua and Saira Alibhai

Abstract

Memory-related issues are one of the major challenges experienced by individuals with dementia and have the potential to greatly hinder performance in various occupations. The memory quilt is designed to be a personalized assistive device for this specific population group and employs visual, verbal and auditory cues to enable individuals with memory impairments engage in activities of daily living (ADLs) and instrumental activities of daily living (IADLs). Occupational therapy values the notion of restoring occupations as a means to achieve a healthy, balanced living. To achieve this balance, the dynamic connection between the person, environment and occupation must be considered. By providing a meaningful memory aid or modifying a memory-impaired individual's environment, successful engagement in activities can be productively facilitated. The memory quilt consists of a built-in clock, several picture size slots forming concentric circles around the clock, and verbal descriptions about a person, object or event. The purpose of the clock and slots is to enable users with assistance of ADLs and IADLs they want to, need to or are expected to accomplish at various times in a given day. Generally, the memory quilt can facilitate cooperation during assisted daily routines, act as a source of guidance, reassure users of upcoming events and support communication between users and caregivers. It is recommended that the memory quilt be evaluated by assessing for increased independence in ADLs and IADLs through verbal feedback and detailed behavioral logs of changes in levels of independence from users, health care professionals and/or significant caregivers.

THE “PERFECT PONYTAIL” FOR INDIVIDUALS WITH HEMIPLEGIA

Stacey Baboulas & Shira Tenenbaum

Abstract

Physical impairments can affect an individual’s occupational performance in activities of daily living (ADLs). These impairments can involve loss of function in one upper-extremity (i.e. hemiplegia), and affect one’s ability to perform bimanual activities such as making a ponytail. The “Perfect Ponytail” (Baboulas & Tenenbaum, 2006) is composed of a flexible gooseneck with a suction cup at the bottom end, to enable attachment of the device to the counter or wall. The flexible gooseneck will accommodate the bending and pivoting required for positioning of the ponytail that best fits the individual’s needs. A clamp will be located at the top of the gooseneck which will squeeze together to hold the hair in its gathered position. A hair elastic, to be transferred to the ponytail, will be placed around the gooseneck prior to using the device. A small hook will be attached to the clamp to help take hold of the elastic for wrapping around the hair more than once. The purpose of the “Perfect Ponytail” (Baboulas & Tenenbaum, 2006) is to increase the independence in hair care, specifically, for making a ponytail, by acting as an external hand to hold the hair in the desired ponytail position. It is recommended that this hair care device be evaluated by assessing for improvement in quality of performance and satisfaction with this activity by the individual.

Assistive Deodorant Applicator Kit Candace Skinner & Vivian Ip

The Assistive Deodorant Applicator Kit includes two components that enable persons with hemiplegia, upper extremity weakness or limited range of motion, and/or an arm amputation in deodorant application. The first component, “deodorant holder”, stabilizes standard deodorant products to enable persons to remove the lid and manipulate (turn/twist) the dial to adjust the desired amount of deodorant for application. The second component of the device is the “applicator aid”, which is an “L” shaped stick with an attachment on the shorter end that stabilizes the tube of deodorant, enabling the individual to reach and apply deodorant to both underarms with the use of the unaffected/stronger limb. The purpose of the Assistive Deodorant Applicator Kit is to enable individuals in the area of self-care. Deodorant application is an important component of maintaining personal hygiene and it requires bilateral arm movements across the midline of the body. Individuals with a weak upper extremity and/or an amputation have trouble with tasks that require physical exertion, upper body strength, manipulation of objects and crossing at the body’s midline. Therefore, deodorant application is an aspect of self-care that the identified population may neglect due to a lack of skills required to complete the task. The “holder” and “applicator aid” compensate for the weaker/amputated limb to enable individuals with one functional arm to complete the occupation of deodorant application, which will increase the individual’s self-confidence and self-esteem. To determine the effectiveness of the device, self-report from users about device design, ease of use and areas for improvement combined with the results of a standardized tool such as the Canadian Occupational Performance Measure (COPM) to gain information about the individual’s satisfaction with performance of his/her daily function of deodorant application can be used.

“SMART TIES”

Susie Rothman & Alexis Seaman

Abstract

Shoe tying is an occupation that young children learn at an early age to help them become more independent with their dressing. Many young children experience difficulties with manual dexterity which is a required component of shoe tying and therefore experience problems and break downs with this task. Occupational therapists can incorporate Bandura's theory of self-efficacy (1986) to enable children in tying their shoes by instilling in them a sense of competence in their abilities from successful attempts at completing the task. The “Smart-Ties” (Rothman & Seaman, 2006) device involves a shoe lace that has been divided into different coloured sections which mark where each step must occur. The shoe lace contains a wire internally which provides stability and ensure it remains intact once molded into a certain position. After each step, a fastening device ensures the step stays in place and do not fall apart if the child has difficulties holding the shoelace with their hands. The purpose of the invention “Smart-Ties” is to provide young children a method of learning how to tie their shoes that provides them with cues of where to make the steps of shoe tying, and also assists with maintaining the form of the process so they can proceed and hopefully complete all steps successfully. An evaluation process of “Smart Ties” would involve the administration of the Canadian Occupational Performance Model pre and post of the child utilizing the device and would examine and compare their self-assessments of their performance and satisfaction with their performance.

THE SNACK ENABLER FOR PUREED DIETS

Christy Pickles and Erin McQuay

Abstract

As many seniors living in long-term care are physically and cognitively compromised, they may require assistance with their activities of daily living. With this need for support, it is important to enable independence in occupations when possible. Being able to feed independently is an important occupation that can maintain an older adult's sense of independence. Occupational therapists are often involved in prescribing assistive devices that can enable independence in occupations. The prototype assistive device was designed to enable spoon feeding for a long-term care resident with Parkinson's. He can feed himself with his right hand, but is not able to stabilize containers with his left hand. He enjoys eating applesauce in individual plastic containers, although he often needs assistance as there are no products available to stabilize disposable food containers. The prototype assistive device is a small plastic ring structure in which the disposable applesauce container fits snugly inside. The ring acts as a stabilizer, so the container does not move with spoon feeding. The device can be secured to a non-slip place-mat when feeding, and can be removed for cleaning. The purpose of the device is to compensate for the resident's decreased functioning, as well as to promote independence in feeding. The device could be evaluated by assessing the resident's satisfaction with his ability to independently spoon feed using the Canadian Occupational Performance Measure (COPM), or by assessing the resident's ability to eat applesauce without assistance.

SIMPLIFIED SEATING: APPROPRIATE TECHNOLOGY FOR TANZANIA

Ruth Bakewell and Sharan Mahil

Children with cerebral palsy (CP) often show an impaired ability to maintain normal postures and in turn develop abnormal movement compensations (Case-Smith, 2001). This can interfere greatly with a child's ability to attend and participate in school. Many children with CP benefit from a supportive seating system in school to support posture and stability, allowing them to engage in school activities. In Tanzania, a survey conducted by the Comprehensive Community Based Rehabilitation Tanzania (CCBRT) highlighted an extreme shortage of preventative, curative and rehabilitation services for people living with disabilities. In Tanzania the average household makes \$1 per day, only 2-8% of the population has access to rehabilitation services, and 98% of children with disability are unable to attend school. Typical seating in most village schools consists of long, unresponsive benches. An additional supportive seating system would enable participation in school for many children with CP. The average cost of North American supported seating systems is \$600-\$800 USD. The main principle of *simplified seating: appropriate technology* is to use materials that are affordable or free and readily available in many communities in Tanzania. Our simplified seating device can be constructed locally and easily modified to suit the user. It can be constructed to be appropriate for the conditions in a particular community. We will design a protocol to enable people in rural, developing nation communities to design their own supportive seating system for kids with CP, with materials found locally. Our developed protocol will be designed to ensure that the seating can be adjusted for different children and it will be accessible to those who are illiterate (ex. through the use of instructional diagrams). Effectiveness of the device will be assessed through a workshop and

THE ‘DANGIE CHEST TRAY’ FOR CLIENTS WHO AMBULATE USING A WALKER

Angie DeGiacomo & Danica Croucher

Abstract

The ability to efficiently transport meals to a preferred area of choice is not feasible for all individuals. Individuals who ambulate with a walker are required to use both hands on the walker to ensure safe ambulation; therefore, limiting the opportunity to carry plates and glasses safely from one location to another. As a result, individuals who use walkers cannot achieve maximal occupational performance in the area of meal transportation and ultimately face a decrease in self-efficacy and satisfaction levels with their dining experience. The purpose of the ‘Dangie Chest Tray’ (DeGiacomo & Croucher, 2006) is to address this issue and make dining a more enjoyable experience by enabling clients to safely walk and carry their meals to a desired place to eat. The ‘Dangie Chest Tray’ (DeGiacomo & Croucher, 2006) design is similar to that of a reverse back pack but instead of the pack portion, there is a tray. The size of the tray will be large enough to fit a dinner plate, a glass, and a bowl or side plate, along with room for cutlery and other small condiments but small enough to fit through door openings and to maintain adequate balance. There will be no spills or mess as food and dishware will be carried securely on the tray using the specialized dish-guards. It is recommended that the effectiveness of this tray be evaluated using both the Satisfaction with Performance Scaled Questionnaire (SPSQ) and semi-structured interviews to assess self-efficacy and satisfaction with dining.

focus group, to determine ease of using the protocol to design the supported seating device.

THE LEVEL FOR PEOPLE WITH ONE ARM AMPUTATION

Iris Lazaro, Eugenia Wong

Abstract

Participation in occupations is an important determinant of quality of life (Polgar & Landry, 2004). When people cannot participate in their daily activities, their independence, self-efficacy, and self-esteem would decrease (Hammell, 2004). As occupational therapists, we empower and enable people to participate in daily activities by recommending assistive devices to complete tasks (CAOT, 2002). An area of concern for people with one arm amputation is snow shoveling. Snow shoveling is an important occupation because it affects safety and mobility outside the home. Snow shoveling normally requires bilateral hand use. A person will need both hands to grip, lift, and throw the snow. Hence, people with amputation of one upper extremity or part of an arm are not able to shovel snow manually. The new snow shovel will have a spring mechanism that allows the snow to be pushed out of the shovel blade. The spring mechanism is activated by pulling the handle and the force generated will push the snow out of the blade once the spring is released. The shovel will also be mounted on a portable base with wheels that has a lever system allowing the person to lift the snow for removal. The purpose of the snow shovel is to aid in one-handed manual snow removal, as well as reducing strength, muscle fatigue, and the risk of injuries. It is recommended that this snow shovel be evaluated by obtaining subjective reports on ease of use, frequency of use, energy and muscle fatigue levels after use, and quality of life.

THE BACKPACK WALKER FOR USERS OF WALKING AIDS

Nicholas Altieri and Daniel Zimmerman

Abstract

The backpack walker is a modification to existing walkers that will increase the potential use of these devices and enable individuals that require a walking aid to be more independent and engage in desired occupations. To determine the environmental barriers that individuals with limited mobility encounter, we used the person-environment-occupation model (Law et al., 1996) and superimposed the Human Activity Assistive Technology model (Cook & Hussey, 1995) to address the impact of an assistive device on occupational performance. When using the product, the individual's "intrinsic enablers" (underlying abilities used to perform a task) interact with the "extrinsic enabler" (backpack walker) to allow the user to overcome environmental barriers that impact occupational performance and independence. Many users of mobility devices have difficulties transporting their device up or down stairs because they need to support themselves with their hands, and therefore cannot carry the walker. The proposed device is a combination of a folding walker and a carrying mechanism. The user folds the walker and releases the straps before positioning them on her shoulders. The user then fastens the straps so that the walker is in a balanced position close to the trunk to ensure balance and stability. To evaluate the effectiveness of the backpack walker, we will administer the Psychosocial Impact of Assistive Devices Scale (Day & Jutai, 1996). This tool assesses the impact of assistive technology in the domains of competence (impact on functional independence, performance and productivity), adaptability (the enabling effects) and self-esteem (the effects on emotional well being).

THE “LOWER BODY AID” FOR PEOPLE WITH DRESSING DIFFICULTIES

Manuela Ocrainschi & Victoria Prooday

Dressing is an important activity of daily living. Independence in dressing enables a person to maintain a sense of dignity, self-respect and achievement (Mulley, 1985). Being unable to dress, or spending a lot of energy and time on dressing, the person finds himself/ herself unable to go out and connect with other people, leading to social isolation, depression and dependency on caregivers. Assistive devices offer the potential of increasing independence and quality of life for people with disabilities, as well as reducing health related costs and caregiver burden. The only available dressing devices recommended by occupational therapists for people with back problems and those with hip or knee surgery who have difficulties in dressing the lower body are reachers and dressing sticks. However, some people find that these devices are difficult to use, take a lot of energy and requires precision of hands and legs to grab the clothing and insert the legs into it. The lower body aid device has three main parts: a waistband that is clamped on the waist of clothing keeping the pants opened during dressing, two leg devices on which the pant/ underwear legs are rolled on and two strings for pulling up the pants without bending over or laterally. Therefore, the purpose of the device is to enable dressing without bending and preparing the clothing (pants, underwear, skirt) within hand reach and closer to the eyes. In addition, being able to prepare the clothing on the table or on the lap, allows the person to support his/ her elbows, increasing hands coordination and precision of movement, reducing fatigue and time for dressing. It is recommended that this device be evaluated using self report on client’s fatigue and pain level while dressing, time needed for dressing and satisfaction with the device, as well as the Canadian Occupational Performance Measure (COPM) to assess the self-care, productivity and leisure occupations, as dressing and issues with this activity influence all these domains.

FEEDERASSIST™: ENABLING BOTTLE-FEEDING

Gianna Knibbs & Melissa Peressotti

Abstract

Feeding one's infant is an extremely rewarding and meaningful occupation for new mothers. For women who experience upper extremity (UE) paresis and/or limited range of motion (ROM) due to illness or disease, the occupation of feeding can be a physically laborious and cognitively demanding task, thereby hindering the new mother's ability to bottle feed her infant. Many assistive devices exist to help enable the occupation of feeding that include Velcro straps to hold the baby while breastfeeding, and baby bottles that attach onto the feet of women who do not have use of their UE (Carty, 1998). A device does not currently exist to assist in the occupation of bottle feeding for women who are unable to breastfeed and have UE limitations. Growing out of this need is the FeederAssist™, which enables women (and men) with UE limitations to bottle-feed their infant. The FeederAssist™ reduces the physical demands of the occupation of bottle-feeding by minimizing the UE movements required to move the bottle, and by lessening the amount of energy needed to hold the bottle by transferring the weight from the mother's hand to the lever arm. This ability for new mothers to engage in the meaningful occupation of bottle-feeding with their infants will help to facilitate more strong and intimate bonds by enabling the physical contact necessary to do so.

“MOTHER’S LITTLE HELPER” BREASTFEEDING PILLOW FOR MOTHERS WITH DISABILITIES

Sarah Caughy & Katherine Reece

Abstract

Successful breastfeeding is a well-established benefit, both physically and psychosocially, for mother and infant (Cowley, 2005). Among these benefits is decreased cancer risk for the mother, as well as superior nutrition for her infant. Most importantly, breastfeeding provides an opportunity for mother-infant bonding (Cowley, 2005; Riordan & Auerbach, 1999; Riordan, 1999). The prevalence of pregnancy among women with spinal cord injury is on the rise (Cowley, 2005). Presently, there is no device that addresses the needs of mothers with disabilities who wish to breastfeed more independently. It is the role of the Occupational therapist (OT) to suggest assistive devices for mothers who wish to engage in the occupations of breastfeeding and holding their infant. Mother’s Little Helper can enable mothers with disabilities to perform these occupations comfortably and more independently. This device is a ‘U’-shaped pillow around the mother’s waist. It supports the infant at breast level while the mother is sitting in an upright chair position. A blanket-like fabric extends from the outer edge of the pillow to support positioning of the infant. A strap extends from the dorsum of the pillow to attach to the mother’s hand and subsequently wraps loosely around her neck (similar to an arm sling). The mother will use her neck and/or teeth to adjust the baby’s position. Breastfeeding has both qualitative and quantitative components. Therefore, both objective and subjective measures are used to assess the effectiveness of the Mother’s Little Helper. More specifically, the mother’s level of overall satisfaction is the main determinant regarding effectiveness of the device.

THE “EZ-PLAY TEE & SEAT” FOR OLDER ADULTS WITH THR

Andrea Ford and Jeff Mills

Abstract

Many older adults experiencing severe osteoarthritis and degeneration of the hip joints undergo a total hip replacement (THR). Following THR, pain and limited range of motion (ROM) – exacerbated by physical changes associated with aging, such as decreased strength, endurance, and oxygen consumption – can occur. Physical activity is recommended to help prevent falls and improve the prosthesis fixation. Energy conservation and assistive devices can help to enable occupational performance by offsetting fatigue and physical limitations. The EZ-Play Tee (Ford & Mills, 2006) allows the golfer to place the golf ball and tee in the ground simultaneously for tee-off using of a long handled device to reduce forward bending and arm reaching, thereby reducing pain or difficulty in performing this task due to decreased ROM. Influenced by energy conservation theory, the EZ-Play Seat (Ford & Mills, 2006) provides the golfer with a stable, portable, and lightweight seat for rest periods throughout the round. By decreasing the amount of energy expenditure, these devices decrease fatigue and allow the participant to physically endure a game of golf. Biomechanical and occupational therapy theories guide the design of the products. Enhancing one’s quality of life and sense of well-being through facilitation of, and engagement in, a meaningful occupation are addressed by the devices. It is recommended these devices be evaluated by a user-administered, simple questionnaire assessing fatigue and physical pain post-play and also by having the client describe how each product could be incorporated into their golf game (easy/difficult, stable/unstable design, light/heavy).

PUSH 'N CLICK CAMERA MOUNT
Melissa Lamasan and Marierose Mendiola

According to the Canadian Model of Occupational Performance, leisure is identified as an occupational classification along with self-care and productivity and is defined as occupations or activities that are freely chosen (Christiansen & Townsend, 200). Occupational therapists are concerned with enabling individuals to engage in the occupations that they want to do or need to do. It is probable that populations who experience upper extremity issues such as limited range of motion and fine motor difficulties are unlikely to engage in the joy of capturing special memories through photography. Currently, assistive devices for picture taking are scarce. The Push 'n Click Camera mount will enable those with upper extremity difficulties to independently take a photo. The device will consist of a height adjustable mount that attaches to a wheelchair and a switch that is connected to the shutter of the camera. The mount itself will resemble the neck of a lamp that moves up and down enabling people to bring the camera to eye height. The camera will be held in place by a screw onto what is usually for tripod use. In addition, those with limited reach or fine motor movement can operate the shutter button with just a slight push of the long handled switch. The switch itself will consist of a long handle connected to a knob that sits above the shutter button. When the handle is pushed, the knob pushes down on the shutter button to take the picture. Effectiveness can be evaluated through a questionnaire submitted through email.