# 2008 Scholarly Projects

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### The Use of Aquatic Therapy for Children with Neuromuscular Disorders

**Chris Hydukovich and Troy Schmitz**

**Purpose**
The purpose of this literature was to determine the effects aquatic intervention has on children suffering from neuromuscular disorders compared to that of traditional land-based physical and occupational therapy services.

**Method**
A literature search was conducted using PubMed, OT search, AJOT online, CINAHL, the Mayo Clinic Triage, and various occupational therapy textbooks regarding the use of aquatic therapy in a neuromuscular population. Information was extracted from this literature to generate educational material for parents of children receiving aquatic occupational therapy.

**Results**
A review of literature presented cerebral palsy as the main neuromuscular disorder of study associated with aquatic therapy. Focus of aquatic therapy aimed at increasing such areas as range of motion, functional mobility, normal movement patterns, and feelings of self-worth. A majority of the research found aquatic therapy to be a viable and effective intervention method. From the outcome based literature reviewed by the authors, parental education material was developed for the purpose of assisting parents to understand the use, benefits, and outcomes of aquatic therapy for their child. The education literature focused on assisting parents in understanding what occupational therapy is and how it relates to aquatic therapy. With this, the education material prepares the parent and/or child for engagement in aquatic therapy and increases parental insight into the therapeutic processes and outcomes expected from aquatic therapy intervention.

**Conclusion**
The use of aquatic therapy as an occupation-based treatment method is advantageous for children suffering from neuromuscular disorders for a variety of reasons. Increasing range of motion, an ability to engage in basic activities of daily living, and an improved self-image are all outcomes that can be achieved through the use of aquatic occupational therapy. This user-friendly patient education material will promote parental understanding of the benefits and outcomes aquatic occupational therapy can provide for their children that traditional, land-based therapy may not.

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### A Manual of Expected Milestones in Childhood and Occupation-Based Interventions

**Laura J. Rabenberg & Chere L. Vosberg**

**Purpose:** The purpose of this scholarly project was to develop a manual for parents of children ages birth to five years. The manual includes significant milestones and provides age-appropriate activities which can be used to facilitate development.

**Methods:** A literature review was conducted to identify how play is used to achieve developmental milestones. Resources included journal articles and textbooks from the disciplines of occupational therapy, psychology, education, and medicine.

**Results:** A manual for parents was created and consists of a discussion on the importance of play in development, expected milestones, occupation-based interventions, and resources regarding child development. This manual is intended for distribution to parents at a group educational seminar lead by an occupational therapist. The components of this manual are guided by the Ecology of Human Performance Model.

**Conclusion:** Child development can be optimized through the use of play activities to develop physical, social, emotional, and cognitive skills. Experiences in early childhood can hinder or enhance developmental achievement later in life. The parent-manual product of this project will provide developmentally-appropriate occupation-based activities which can be incorporated into daily routines for children ages birth to five years.

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### Dr. Gail Bass

**Tegan Aymond & Andi Kuhn**

**A Guide to Training Occupational Therapists in Dealing With Difficult Patient Care**

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A Guide to Training Therapists in Dealing with Difficult Patient Care Situations

Tegan Aymond and Andi Kuhn

During the course of their practice many occupational therapists are faced with difficult patient care situations. For the purpose of this project difficult patient care situations, are defined as provision of intervention programs to clients who are terminally ill, chronically ill, or who have experienced traumatic injuries. The purpose of this project was to develop an in-service for occupational therapists to help them deal with difficult patient care situations. The in-service was designed to increase occupational therapists' awareness about these difficult issues and how they are dealing with them on a personal basis.

An extensive literature review was conducted in order to gain insight about the difficult issues faced by in occupational therapists in difficult patient care settings, and to gather general information on how these issues and situations were being addressed. After reviewing the literature, it was noted that there is a high rate of therapist burnout. Bassett & Lloyd, 2001). It was found that defining the role of occupational therapy is difficult and trying to establish boundaries within that role is a constant challenge. (Sachs & Labovitz, 1994, p. 1003). The lack of knowledge on issues such as ethics, therapeutic relationship, and core values can be difficult when establishing a personal and professional balance in occupational therapy. (Sachs & Labovitz, 1994).

The completion of an extensive review of current research and literature was foundational to the development of the in-service. The primary purpose of the in-service is to provide occupational therapists with knowledge, resources and strategies that will lead to a positive therapeutic relationship.

Educational Class for Parents of a Child Recently Diagnosed with Autism

Marcie Sandeen, & Sarah Haugen

The prevalence of autism in children has been on a steady increase, with current research showing that “1 in 150” (Center for Disease Control as cited on Autism Society of America, 2006) children in the US are affected with autism, compared with “4 to 5 times per 10,000 births” reported in 1992 by Simpson and Zionts (1992, p. 9). With a diagnosis of autism both the child and parents are faced with difficulties, which can lead to the child acting out behaviorally. With the increased challenges faced within a family, it becomes pertinent to provide the parents with the education and resources to effectively deal with the challenges.

A review of literature and research was conducted to collect accurate and current information on autism and the stressors having a child with the diagnosis of autism places on parents. Through the literature review we were able to identify the main issues that are faced by a child with autism. These issues include social interaction, communication, and fixed interests and repetitive behaviors. We were also able to find information on how the parents and other family members of these children are affected.

The purpose of this scholarly project was to create an educational class for parents of children with autism and provide them with the information and interventions that will help them face the everyday challenges. The class provides information on the different issues that their child will face, the most common learning style of children with autism, interventions that can be utilized to address the issues, and coping skills for the parents. By attending the class it is hoped that parents will be better able to deal with the issues that are faced on a daily basis when raising a child with autism.

The Impact of Domestic Violence on Children: Implications for Professionals

Kelly Hughes & Brooke Kohler

There are 3 million child abuse and neglect accounts reported to child welfare agencies across the United States every year, but researchers predict as many as 10 million children are exposed to domestic violence in the home (Christian, 2002). Children do not always show the physical signs of living in homes with domestic violence. Frequently the most prevalent impact can lie within the child’s mind, resulting in possible cognitive, emotional, and behavioral effects (Tri-State Rural Collaboration Project, n.d.). In order to provide the best possible care, it is imperative for professionals to understand the effects that domestic violence has on these children.
The effects are displayed within the classroom and can commonly be overlooked as behavioral issues, and professional may not consider looking further for an underlying source. The effect of domestic violence results in children’s decline in ability to perform in their daily activities. Following a review of literature, an educational inservice was developed for occupational therapists to help them gain the necessary basic background knowledge on the impact domestic violence has on children. The inservice covers the following necessary topics: implications of domestic violence, how to identify the children affected, the steps for reporting suspected domestic violence, and an overview of intervention strategies to use when working with these children.

This inservice was designed for occupational therapists working with children between the ages of six to twelve. The product is designed to be presented in a three-hour time frame, but is designed in a way that is flexible for the instructor giving the presentation. Inservice materials include; an outline, presentation slides with notes, participant handouts, and a case study and other activities.

Dr. LaVonne Fox

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Constraint Induced Movement Therapy: An Educational Module for Occupational Therapy Students
Grant Basko & Tamira Ott

The literature indicates that approximately 730,000 Americans experience a new or recurrent stroke each year. There are approximately 4 million Americans living with some type of disability as a result of having suffered a stroke. Due to the high incidence of stroke related disability and associated economic costs; stroke rehabilitation is a health care priority. Even with early intervention only 10% of stroke survivors will recover completely, 25% recover with minor impairments, 40% experience moderate to severe impairments, 10% require care in a nursing home, and 15% die shortly after the stroke. Since the highest categories range from minimal to severe impairment, it is believed that CIMT would be a viable treatment option for these clientele still experiencing deficits. Thus, due to the high incidence of stroke in our country, this is a common area for OT to become involved with.

The purpose of this scholarly project was to develop a Constraint Induced Movement Therapy (CIMT) educational module for occupational therapy students at UND. A literature review was conducted using PubMed, Ebsco Host, and other online databases to determine viable populations and efficacy of CIMT. Resources included journals, textbooks, and online databases. In addition, a review of the UND OT Department curriculum was completed to identify where this additional information can be inserted.

The resulting product is an educational module for occupational therapy students that is divided into the following 4 units
1) Introduction to CIMT, 2) Role of OT with CIMT, 3) outcome measures, and 4) Resources. The educational module is developed based on Malcolm Knowles Theory of Andragogy. This theory is applicable in the development and dissemination of information for the adult OT student learner. In conclusion, CIMT is a reemerging stroke intervention and is gaining national recognition and support as a viable treatment option. Literature indicates that up to 97% of chronic stroke patients experience substantial, significant, clinically meaningful gains after receiving CIMT. Therefore, it seems appropriate that students would benefit from exposure to this intervention within the academic setting.

Bright Beginnings: Quick Tips for Occupational Therapists in the Level II Nursery
Lindsey Bartholomew & Lacey Gramstad

In 2004 there were 790 infants born prematurely in Wyoming (Freudenthal, 2006). Currently, the highest level of care available in Wyoming is a Level II nursery. In Wyoming, infants born prematurely with special medical needs are typically transported to specialized NICU’s in surrounding states. The limited contact that medical staff in rural facilities, including OT’s, have with critically or moderately ill infants creates a lack of competency with the unique medical care needs of the infants. According to Gordon (2003) “nearly half of America’s babies start out their lives in a rural community” (p. 3). Furthermore, research indicates that the provision of care in rural areas is substandard to care in urban/suburban areas due to lack of adequate training and resources secondary to a lower population of infants born prematurely. Gordon (2003) also indicated that “such deficiencies in training have less impact in urban and suburban areas, which have seen a proliferation of level II units. Outcomes of
infants born in suburban areas are superior to those of neonates born in rural locations” (p 3). Research supported a need for a resource guide for OT’s who provide care to infants born prematurely in Level II nurseries in rural areas.

The development of the resource guide is based on an extensive literature review; guided visits to a Neonatal Intensive Care Unit (NICU) and a rural Level II nursery; personal experience in NICU and rural Level II nursery environments; and discussions with medical professionals within both settings. The authors were able to identify the areas of need to be included within the product portion of the scholarly project. Knowles’ Theory of Andragogy was used in the development of the resource guide.

Based on the results from the literature review, it was found that occupational therapists (OT’s) possess a need for resources to be utilized while caring for infants born prematurely in a rural Level II nursery. Further findings from the literature indicated that the needs of the infant, parent, and therapist need to be equally considered in order for care to be most effective (American Occupational Therapy Association, 2006). The specific needs of the infant, parent, and therapist were identified within the literature and addressed within the product portion of the scholarly project.  

**Bright Beginnings: Quick Tips for Occupational Therapists in the Level II Nursery** is intended to be used by the OT throughout the evaluation and treatment process of the infant born prematurely.

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**The Occupational Therapy Caregiver’s Guide to Spinal Cord Injury**  
Kelsey Felix & Amanda Larson

In 2006, it was estimated that there were 253,000 Americans living with spinal cord injuries (SCI) (Spinal Cord Injury Information Network, 2003, p. 1). Current literature suggests that individuals are transitioning into the community earlier with the majority of care being provided by informal caregivers (Boschen, Tonack, & Gargaro, 2005). These caregivers are often unprepared for the major role they will be assuming in the care of their loved one and often their health and well-being is compromised due to the overwhelming nature of caregiving.

A comprehensive literature review was conducted to explore and identify the needs of caregivers. Topics researched included spinal cord injury (SCI), treatments, caregiving, caregiver needs and interventions, and caregiver resources. In addition, the literature was reviewed regarding best practice strategies to deal with the changing needs and lifestyles the family may experience. The literature review revealed that there were few resources examining caregivers of individuals with SCI, many of the needs of the caregiver were identified and shown to be under served.

Based upon the literature review, the Occupational Therapy Caregiver’s Guide to Spinal Cord Injury was developed to assist caregivers in performing their new role of primary caregiver. It provides them with information on basic patient care guidelines as well as information on the caregiver’s physical and psychosocial well-being. The guide also provides the caregiver with information on the importance of continuing their prior occupations along with their new occupations. Lastly, the guide will provide the caregiver with a list of resources that may be useful in trying times such as the benefits of respite care.

The authors hope that the guide will begin to bridge the gap faced by caregivers of individuals with spinal cord injury. It is hoped that unifying the resources and strategies in the guide will decrease the caregivers stress so he or she can be in a more healthy and supportive role during the recovery process.

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**Helping to Win the Battle Within: An Occupational Therapy Perspective for Returning Veterans with PTSD and Employment**  
Christine Avikainen & Amber Harvey

**Purpose:** Approximately 20 percent of the returning soldiers, about 1.6 million service men and women, from Operation Iraqi Freedom/Operation Enduring Freedom have been diagnosed with post traumatic stress disorder (PTSD) (National Veterans Foundation, 2005). In this scholarly project, we have addressed the needs of the increasing number of war veterans diagnosed with PTSD; specifically, the barriers that they may encounter when considering non-military related employment.
Methods: A thorough review of the literature revealed that there is a lack of information for returning military personnel and potential employers about the process of obtaining/re-obtaining employment for returning soldiers diagnosed with PTSD. The literature revealed that the soldiers returning from the present war and their employers do not have adequate resources to understand the veterans’ PTSD symptoms, the subsequent effects on functioning, legal implications and rights to military personnel in the area of employment. Additionally, returning military personnel with PTSD require assistance with entering/re-entering employment secondary to symptoms and the symptoms succeeding effects on functional integrity which includes post-deployment skills dysfunction.

Results/Conclusions: Based on the literature findings, a product was developed to guide the occupational therapist in facilitation of a series of treatment and educational sessions, with an emphasis on reestablishing an employment related skill set for military personnel returning to work. The skills that have been addressed include anger management, stress management, coping, job application, and interview process. A resource guide for employers was also created to maximize employer knowledge of legal terminology and the effects of PTSD on functional capacity. Our global intention in creating this product was to maximize veterans’ return to work as “work performance supports participants and productivity, which are essential to the health and well-being of each individual. (AOTA, 2005, p.676)

An Occupational Therapy Guide for Entry-Level Occupational Therapists Specializing in the Treatment of Patient with Upper Extremity Dysfunction: Traumatic Injuries
Marty Melland

Introduction, Problem & Purpose:
According to Kasch, Greenberg, and Muenzen (2003), occupational therapists who are initiating their entry into hand therapy or upper extremity orthopaedic specialization do not have the knowledge and skills of an experienced therapist. This is especially true for occupational and physical therapists who enter the workforce with a general overview of many treatments but have not trained or worked in a specialized upper extremity orthopaedic practice. Upper extremity orthopaedics is a specialty area of the occupational therapy (OT) profession which requires not only a wide range of knowledge and experience, but also extended knowledge of specific diagnostic categories and treatment. Secondary to the need to prepare students for entry-level generalized practice, many OT programs are not designed to prepare students for areas of specialized practice, including upper extremity orthopaedic therapy. Despite the absence of specialty knowledge, many students obtain employment in OT hand therapy clinics or treat patients with upper extremity dysfunction in other practice settings. While comprehensive literature exists for treating patients with upper extremity injuries, there are limited resources designed to assist entry level therapists during their transition from an OT student to a clinician in a specialty area.

Methods:
A literature review was conducted to obtain information on the process of specializing in OT hand therapy. Informal interviews with practicing OTs and faculty members specializing in orthopaedic upper extremity therapy were also conducted to obtain more information about hand therapy and the process of becoming a competent therapist. The product portion of this project was created after gathering information about three common traumatic upper extremity injuries, distal radius fractures, traumatic tendon injuries, and traumatic nerve injuries, and the therapeutic approaches to treat these injuries. Information was gathered from materials produced by orthopedic surgeons, general physicians, hand therapists, occupational therapists, and other medical professionals specializing in the treatment of hand injuries.

Product:
The information collected culminated in the creation of a manual designed for use by entry-level occupational therapists and is presented in three sections that are congruent with the three aforementioned diagnoses. Each of the three sections of the manual provides an overview of the diagnosis being discussed as well as common problems associated with each diagnosis and treatment strategies that are commonly used in the hand therapy setting. Each section also includes pictures or diagrams representing the traumatic injury, explanations of common etiology of the injury and the general symptoms that may be present. The manual also includes a resources section which includes helpful literature, websites and associations for occupational therapists who are treating patients with upper extremity orthopaedic dysfunction.

Conclusion:
I believe this product can be used by students who are interested in entering the hand therapy setting but do not feel they have the knowledge and experience to do so. Further, I believe this product will be useful for practicing therapists who work in rural settings or other settings in which patients with hand injuries are not the primary population being treated.

An Occupational Therapy Guide for Teaching Handwriting Skills to Adults
Kyla Miller & Nichole Schroeder
Purpose: Handwriting is a skill utilized widely by adults; however, there is a lack of guidelines, information, or literature on the subject as it relates to adults. The purpose of this project was to develop guidelines for occupational therapists to use when providing handwriting interventions with adults.

Methods: A literature review was conducted using PubMed, CINAHL, SCOPUS, DynaMed, and professional journals to further understand the topic of handwriting with adults and its relation to occupational therapy. Currently, there is limited research and information regarding handwriting with adults and no programs or guidelines were found to assist the occupational therapist in developing treatment interventions to remediate adult patients’ handwriting.

Results: The guidelines developed for occupational therapists consist of a review of the anatomy and musculature involved with handwriting, grasp patterns, ergonomic factors relating to handwriting, visual control, proprioception and kinesthesia, spatial analysis, bilateral integration, and age-appropriate activities/intervention ideas for use with occupational therapists’ adult clients. The development of these guidelines was grounded in constructivist learning theory to enhance the meaning of the treatment for the client.

Conclusion: These guidelines will provide occupational therapists with a basic foundation of knowledge and treatment strategies to maximize their clients’ remediation of handwriting dysfunction. The authors of this scholarly project recommend that more research is performed on handwriting practices with adults. It is also recommended that an assessment be developed that specifically addresses adult handwriting skills.

Cardiac Rehabilitation: A Course for Occupational Therapy Students
Alison Cherney, Shauna Norrie

Purpose: There is limited information regarding the occupational therapist role in the cardiac rehabilitation setting. This lack of information may contribute to a limited number of occupational therapists working in this setting. Through the identification of this problem, the need for a course about cardiac rehabilitation for occupational therapy students was identified. The course was intended to expand the students’ knowledge of cardiac rehabilitation and the position of an occupational therapist within this setting.

Methods: A literature review was conducted utilizing several research databases which include PubMed, ERIC, and SCOPUS to determine the depth of information available regarding educational theories, educational strategies, occupational therapy and cardiac rehabilitation. Information was also gathered from journals, textbooks and faculty knowledge. The information for the course delivery, objectives and learning tasks was developed from occupational therapy, cardiac rehabilitation and educational research and literature but the content of the course was developed by Bonnie Hoff for her scholarly project in 2007.

Results: The course is intended for occupational therapy students who are interested in developing further their knowledge in the practice area of cardiac rehabilitation. The course is intended to be an elective study which spans over the period of one semester. There are a total of two quizzes, one treatment plan assignment, a fieldwork experience, and other assignments which are projected to expand and assess OT student knowledge. This course consists of four educational modules which contain 13 units regarding information on cardiac rehabilitation.

Conclusion: In conclusion, the occupational therapist has the ability to provide high quality services to various areas of practice. An area of practice which has received little attention in research in relation to occupational therapy is cardiac rehabilitation. Through the implementation of courses such as the one developed, occupational therapy might expand its scope of practice to areas which can be complimented by an occupational therapist’s skill. The cardiac rehabilitation course is intended to provide occupational therapy students with additional information about this specialty area and promote entry-level occupational therapist engagement in cardiac rehabilitation.

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A Wellness Program for Adults with Developmental Disabilities
Kristina Bouley & Lynsey Shirado

Problem: Adults with developmental disabilities have obesity rates that are significantly higher than that of the general population (Havercamp, Scandlin, & Roth, 2004), which may be a result of their sedentary lifestyles and lack of participation in programs that promote health and wellness (Rimmer, Braddock, & Pitetti, 1996). Currently, there are only three programs worldwide designed to meet the needs of this population.

Purpose: The purpose of this scholarly project was to develop a wellness program that meets the unique needs of adults with developmental disabilities in order to increase the health and well-being of this population.

Method: After conducting a thorough review of the literature using the databases Pub Med, AJOT, OT Practice, OT Seeker, and OT Search, the authors developed a wellness program for adults with developmental disabilities based on the strong need for such a program.

Results: This wellness program incorporates six of the seven dimensions of wellness to encourage engagement in health and wellness activities which are personally meaningful. It is expected that adults with developmental disabilities may subsequently experience an increased quality of life, as well as greater overall health through their participation in such a program.

Conclusions: The product is a wellness program for adults with developmental disabilities designed to be implemented in community fitness facilities by an interdisciplinary team composed of an occupational therapist, dietician, physical therapist, a licensed practical nurse, and trained fitness facility staff. The program is expected to be implemented in 2008 with clinical results published.

Home Modifications for the Elderly
Jennifer Samuelson & Kristyn Kurpius

Purpose: The purpose of this project was to identify and present methods to increase a person’s ability to participate in occupations within their home. “Almost 50 million Americans - about one in five - live with a mental or physical disability, many of their homes are inconvenient, restrictive, or dangerous for them” (McCullagh, 2006, 54). As a result they are unable to participate in safe and functional occupations.

Methods: A literature review was conducted with the use of PubMed, AJOT, textbooks, home modification handbooks, and the internet. The literature review determined the need for home modifications with the elderly population and identified current home modification designs and products in order to provide the elderly and their families with current information and recommendations.

Results: A Home Modification Handbook was designed according to the Ecological Model of Occupation. The handbook is for elderly person’s who would like to remain in their homes regardless of natural ageing and personal deficits. The handbook includes questions to consider, modifications, and products for individual areas of a house including: entrances, interior walkways and doors, kitchen, bathroom, bedroom, living room, laundry, and general safety.

Conclusion: This user friendly handbook will provide elderly individuals and their families the knowledge that will allow them to live safe and independent lives within their own homes. It is recommended that professionals work to develop grant programs that would provide home modifications and assistive technology for individuals who lack independence within their homes are unable to make changes due to limited finances. It is also recommended that healthcare facilities begin to require home evaluations for patients that are returning home to ensure their safety and successful completion of occupations.

An Occupational Therapy Approach to a Wellness Program for Adolescents with Mental Illness
Holly Silewski, & Christina Thompson

Purpose: The purpose of this project was to identify wellness needs of adolescents with mental illness (MI) and to provide a structured program that incorporates occupational activities into wellness programming within a mental health setting.

Methods: A literature review was conducted using PubMed, Ebsco, PsychInfo, Scopus, OT search, and CINAHL to determine the need for wellness programs for this population. Resources included journals, books, websites, magazines, government agencies, and government reports.

Results: After an extensive literature review it was found that there are a limited number of wellness programs, as well as a need among adolescents with MI, as evidenced by increasing rates of obesity, violence, suicide rates, and depression. A video series consisting of 7 videos, along with an instruction manual were developed to incorporate wellness into treatment within a mental health facility for adolescents with MI. The seven videos focused on physical, social, spiritual, emotional, occupational, environmental, and
intellectual dimensions of wellness. The videos comprise education regarding wellness, discussion sessions, and examples of
occupation-based wellness activities. The manual includes additional ideas for activities under each area of wellness, resources
needed, and step-by-step instruction. This program follows the Canadian Model of Occupational Performance (Kielhofner, 2004), as
it focuses on a balance of person, environment, and occupation, which is also an important component of wellness.

**Conclusion:** In conclusion, it is recommended that occupational therapists include wellness activities as a part of treatment for
adolescents with mental illness. It is likely that a wellness program will increase healthy behaviors and enhance quality of life. It is
expected that this wellness project be introduced and implemented in mental health settings for adolescents by the year 2008, with
recommendations for grant attainment to continue research.

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**Promoting Children's Health in the Home Environment to Improve Learning Abilities: A Parent's Handbook**
Stacie Voth & Shannon Troje

The World Health Organization (2003) stated that “obesity is a global epidemic”. The United States (U.S.) in particular has
a statistically significant higher rate of obesity in children. According to the American Academy of Pediatrics (2003), 15.3% of
children between the ages of 6 and 11 years old are obese as a result of unhealthy habits and routines. Because these habits and
routines often begin in the home environment, health promotion activities should involve parents/guardians (Manios, Kafatos,
& Mamalakis, 1998).

At this time there are few resources available for parents/guardians and their children to promote wellness in the home
environment. Parents/Guardians of 1st graders are targeted because research indicates that “life-long habits have their roots in early
childhood,” (Manios, Kafatos, & Mamalakis, 1998, p. 604). The purpose of this scholarly project is to promote healthy habits and
routines for first graders and their parents/guardians in their home environment that will continue with them throughout their
lifespan.

This scholarly project utilized a literature review to examine childhood obesity and determine the effectiveness of health
promotion programs for children. The students utilized the Occupational Adaptation Model to guide the development of a
parent/guardian handbook to promote healthy habits and routines in the home environment. The handbook provides activities and
educational resources for parents/guardians to use when promoting healthy habits and routines in their 1st grade children.

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**An Occupational Therapist’s Guide for Rehabilitative Driving with Traumatic Brain Injured Clients**
Joey Hadsall

Traumatic brain injuries are devastating occurrences accounting for nearly 10 million injuries occurring each year, with 2
million of those occurring in the United States. As these individuals progress through rehabilitation and begin to acquire
independence once again, they look for opportunities to reintegrate within the communities which they live. Driving has been
identified as a monumental stage of rehabilitation and is a key way to experience the community for individuals after a traumatic
brain injury. This scholarly project was conducted to help occupational therapists addressing driving rehabilitation with traumatic
brain injured clients and help ease some of the problems that inexperienced occupational therapists face with rehabilitative driving.
The problems that have been addressed include the limited information that is available to inexperienced occupational therapists as
they deal with rehabilitative driving. Rehabilitative driving is an emerging field in occupational therapy. Many therapists will not
address driving on a fulltime basis and may not have driving specializations. This guide will help those that are limited with
inexperience approach driving concerns with traumatic brain injured clients.

A comprehensive literature review was conducted to support the outcome of the developed product. This research suggests
that rehabilitative driving resources are needed to increase and support the evidence base on driving. The development of additional
resources will provide increased access to rehabilitative driving for inexperienced occupational therapists. As the literature review
progressed, it also became evident that traumatic brain injured clients are in need of rehabilitative driving services specific to their
diagnosis.
Managing Post-Stroke Fatigue: A Guide for Daily Living for Clients and Caregivers

By: Carolyn Krum, MOTS & Heather Satrom, MOTS

Several research studies have determined that fatigue is a common symptom, that should be viewed as an independent consequence following a stroke: it interferes with an individual’s engagement in activities of daily living. Fatigue can be misinterpreted as depression, therefore, may be treated inappropriately or remain untreated. Fatigue is not often addressed by health care professionals, therefore, clients and their families are not receiving the proper education and resources to manage fatigue challenges (Glader, Stegmayr, & Aspuland, 2002; Schepers, Visser-Meily, Ketelaar, & Lindeman, 2006). The purpose of this project was to develop a guide for daily living for clients and caregivers to educate and manage post-stroke fatigue.

A literature review of journal articles was conducted to determine what has been done in the healthcare profession and the field of occupational therapy regarding management of post-stroke fatigue. Brief summaries of each of the articles were written to broaden knowledge and synthesize understanding of the topic. Common themes relating to post-stroke fatigue were identified from the scholarly literature and became the focus of discussion throughout the literature review: defining fatigue and how it differs from depression; exploring possible causes and risk factors; studying fatigue’s impact on daily living and on caregivers; selecting appropriate measurements and assessments to further future research; and studying current suggested interventions and their effectiveness in managing post-stroke fatigue.

A guide for daily living to manage post-stroke fatigue was developed for clients and caregivers using adult learning principles. Adult Learning principles acknowledge that the learner takes the responsibility to make his or her own decisions. By increasing awareness of what the learner needs to know, individuals are able to make personal modifications and to effectively cope with real-life situations (Knowles et al., 2005). The contents of the guide address the most prevalent needs, as identified in the literature review, of individuals that are suffering from post-stroke fatigue and can be incorporated at any point within the rehabilitation process. This guide for daily living focuses on the integral role played by an occupational therapist to assist clients and caregivers and provides educational information to enable management of post-stroke fatigue symptoms. The product facilitates the ability to define and identify post-stroke fatigue; to identify possible causes and risk factors; to recognize the potential impact on daily living; to seek further information from health care providers; and to provide post-stroke management strategies which include instructions for recognizing fatigue symptoms, energy conservation techniques, tips for staying active, and addressing the psychosocial aspects of living with fatigue.

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An Educational Resource Forum for Family Caregivers of Individuals with Alzheimer’s Disease

Tina Langlie & Karli Morman

There are currently 10 million Americans who care for a loved one with Alzheimer’s disease or another form of dementia (Alzheimer’s Association, 2008). Monitoring and maintaining the health of the caregiver is important because it allows the individual with Alzheimer’s disease to remain in their familiar home environment for as long as possible. It has been proven that both physical and emotional health of a caregiver decline with the demands associated with caregiving (O’Rourke, Cappeliez, & Neufeld, 2007). Healthcare professionals are responsible for assisting caregivers with maintaining their own health while caring for their loved one.
Therefore, it is important to develop and implement health education directed toward a caregiver to promote their overall health and well-being.

A review of the literature revealed that emotional and physical health of a caregiver is negatively impacted with the increased demands associated with caregiving (O’Rourke, Cappeliez, & Neufeld, 2007). Demographic differences including gender, age, race, premorbid relationship satisfaction, education, and income all are found to affect the experience felt by the caregiver. A variety of interventions including education, psychoeducation, supportive therapy, respite care, psychotherapy, and multicomponent approaches have been shown to be beneficial to the caregiver population and have been useful in decreasing burden and in improving overall health and well-being.

This educational resource forum was designed to maintain or improve a caregiver’s physical and emotional health enabling them to adequately care for their loved one. The forum used a multicomponent approach and incorporated education, psychoeducation, supportive therapy, and community resources into the interactive six-session course. Future plans consist of pilot testing and implementation of this educational series into community settings within the region.

**Dr. Sonia Zimmerman**

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**An Occupational Therapy Based Program for Women with High Risk Pregnancies**
Rebecca Anderson & Cammie Vodika

High risk pregnancy is a growing concern in the United States (McCormick, 2001), resulting in complications in both the mother and the fetus. Each year, approximately 875,000 women experience at least one such complication. Approximately 460,000 women are receiving inadequate prenatal care (American Pregnancy Association, 2007). The purpose of Knowing While Growing: An Occupational Therapy Manual for Women with High-Risk Pregnancies is to promote the health and wellness of expectant mothers and to prevent disability to themselves and their developing fetus through the use of research-based therapeutic interventions. The components of this manual include definitions of high-risk pregnancies and related terms, members of the treatment team, discussion of the theoretical foundation of the manual, outcomes measures to be used to determine the effectiveness of these services, additional resources for the therapists and the expectant mother, references used in developing this manual, and the specific interventions provided.

The outcomes measures used to determine the success of the interventions in meeting the needs of these women include the Canadian Occupational Performance Measure (The Canadian Association of Occupational Therapists, 2007), satisfaction surveys, a final satisfaction survey, and an occupational therapists self-reflection journal. The Canadian Occupational Performance Measure is a standardized assessment in a semi-structured interview format that is used by occupational therapists to determine what the client feels are their needs in the areas of self-care, productivity, and leisure. This measure will assist the therapists in selecting the interventions that will best meet the needs of these expectant mothers. This assessment will also be used as an outcomes measure at the end of therapy services to determine if those needs were met. The satisfaction surveys will be completed by the expectant mothers at the end of each intervention session to determine how satisfied they were with the information provided. The final satisfaction survey will be given to the expectant mothers at the end of the final therapy session to determine if the overall services met their needs. The occupational therapists self-reflection journal will be completed by the therapists providing the interventions at the end of each session. The therapists will record the strengths, weaknesses, new goals, and key points of each intervention session. These interventions are divided into the categories of stress management and coping skills, nutrition, exercise, and emotional health. These areas of need were identified based on a review of literature on high-risk pregnancies. There are three specific interventions under each category, one being preparatory, one purposeful, and one that is occupation-based. These interventions are designed for use in 45 minute sessions in either individual or group settings. With the use of this manual, occupational therapists will be prepared to meet the needs of women diagnosed with a high-risk pregnancy and will be able to provide them with successful, satisfactory therapeutic interventions.
An Occupational Therapy Guide for Improving Social Performance for Adolescents Within the Juvenile Justice System
Missy Law & Ashle Hicks

Occupational therapists believe social participation is an important aspect of adolescent development. Social participation problems can be linked to mental health diagnoses and delinquency. Adolescents who are court ordered into the juvenile justice system often do not receive the necessary treatment due to lack of resources within the community.

A comprehensive literature review was conducted to gather information regarding social participation aspects in relation to adolescent delinquency and placement within the juvenile justice system. The findings suggest there is more emphasis placed on punishment for adolescents rather than rehabilitation. Interventions used to support rehabilitation are primarily limited to counseling. A need exists for expansion of a handbook titled “Building Bridges”, which was developed to present the role of the occupational therapist in addressing the social participation concerns of adolescents in the juvenile justice system. The goal of this project is to increase awareness of the persistent problems with juvenile delinquency, and to enhance the knowledge and confidence of occupational therapists working with this often challenging population. Occupational therapy services have the potential to assist in the development of adolescent social competence and improve performance of daily occupations.

Post Traumatic Stress Disorder (PTSD) in the Veteran Population: A Guide to Occupational Therapy Treatment
Carla Booth & Heather Hansen

The numbers of returning service men and women from Iraq and Afghanistan are experiencing combat-related complications is an area of growing concern for military health providers. This scholarly project investigated the risk factors and problems associated with post traumatic stress disorder among service men and women returning from military duty in Iraq and Afghanistan. A comprehensive literature review was conducted to examine occupational performance issues faced by the returning soldier. The most significant complications include: inadequate coping skills, loss of interest/participation in leisure, vocational disruptions, problems with reintegrating into the family structure, and ineffective communication/interpersonal skills.

The Lifestyle Redesign Program (Mandel, et al., 1999), Occupational Science, and the Occupational Therapy Practice Framework (AOTA, 2002) were used to develop a thirteen week protocol for occupational therapy intervention with returning soldiers. The protocol includes: a week of assessments based on the Model of Human Occupation, eleven weeks of interventions, and a week of discharge planning. The protocol is a resource intended for use in a Veteran’s Administration outpatient facility. The occupational therapist will likely need to tailor the intervention protocol to meet the needs of the population served.