Master of Occupational Therapy Program

Eleventh Annual
Master of Occupational Therapy Student Research Poster Presentations

Wednesday, November 10, 2010
Rogalski Center Ballroom

Presentations
2:00 – 4:30 pm

Poster Viewing
4:30 – 6:00 pm
Occupational Therapy Interventions to Promote Pre-Literacy Skill Development

Meghan E. Barnett, Meredith A. Carr, Breanne L. Hinkle, Jennifer L. Kluever, Nicole M. Rowold, Amanda L. Wheelock, Gloria J. Frolok-Clark, PhD, OTR/L, BCP, FAOTA and Theresa L. Schlabach, PhD, OTR/L, BCP

Abstract
The purpose of this evidence-based review is to demonstrate the effectiveness of interventions used in occupational therapy to promote pre-literacy skills (e.g., fine motor skills, visual perception, auditory processing, language, cognition/learning, attention, and visual-motor.) After completing a comprehensive literature search, 63 studies were included for critical appraisal. The studies included a wide variety of interventions with outcomes measured in relation to physical, cognitive, and communication skills. Analysis of included articles also highlights potentially new interventions that, although not studied by occupational therapists, are within the scope of practice and could be implemented by occupational therapists. Implications for early intervention programs and practitioners working with clients age birth – five are presented.

References
Effectiveness of a ROHO Cushion in Response to Temperature Change

James Pazour, OTR/L, ATP, Megan Andresen, PT, ATP, Ashley Goyette, Amanda Lawrie, Amanda May, Brittney McCormick, Aileen Mooney, Andrea Niemann, and Lynn Kilburg, DHSc, MBA, OTR/L

Abstract
The effects of temperature change on High-profile, Quadtro Select ROHO cushions are not currently well known. This studied utilized a pre and post-test design that measured the peak pressure index of 8 participants with and without a spinal cord injury. Participants were seated on 70°F cushions and then on cushions that had been cooled in a 37°F environment for 30 minutes. Results indicated that the peak pressure index decreased when the cushion was cooled compared to the warm cushion (p= .016). Based on these results, pressure management plans may need to be altered for individuals seated in temperatures below 37°F by recommending more frequent pressure relief. Additional research should be completed in order to study the effects of temperatures below 37°F, for periods of time greater than 30 minutes, and with more participants.

References
Effectiveness of Yoga Versus Traditional Therapeutic Exercise on Strength, Flexibility, and Compliance

Julie Hast, Christine Kilian, Tiffany Robertson, Janice Sinn, Sundae Swalley, and Erin Phillips, MSOT, OTR/L, CYT

Abstract
Research has proven physical and psychological benefits of yoga practice which Western Medicine supports. This study compared the outcomes of a yoga-based home exercise program to a traditional therapeutic program as prescribed for common forward-head posture. Participants (N =36) were a convenience sample from a Midwestern University including a control group of 10. They completed a battery of tests to assess posture, strength, and flexibility. Random assignment was made to an 8 week intervention group consisting of either traditional or yoga-based exercises and weekly compliance was documented. Post testing was performed and paired t-test results indicated a significantly lower rate of compliance for the yoga group (p = 0.001) and no significant areas of improvement in strength and flexibility. Qualitative feedback from yoga participants emphasized difficulty with learning and performing postures. The study is limited by small sample size and high dropout rates. However, there are important implications for clinical practice such as identifying compliance issues, understanding the value and difficulty of yoga practice, and consideration of life balance. Discussion of future research includes the process of creating compliance for a yoga-based program during times of wellness.

References
Effects of Play-based Intervention on Social Skills in Children

Trista Hoover, Samantha Slifka, Emily Zueger, and Lynn Kilburg, DHSc, MBA, OTR/L

Abstract
This study examined how a play-based intervention impacts the social skills in elementary aged children. Children presenting with developmental delay, sensory processing concerns, and/or on the autism spectrum often display difficulties with social skills. Occupational therapists have the tools and knowledge to implement group play-based interventions for this population. Pre and post-test design and observational approach were utilized to explore the impact of a social skills group at an outpatient clinic in the Midwest. No statistical significance was found upon completion of data analysis. Although statistical significance was not found, researchers observed that early skills became foundational skills for social skills addressed and developed in later weeks.

References
Exploring Female Adolescents’ Physical Activity: Influence of the Social and Physical Environment

Phyllis Wenthe, PhD, OTR/L, Jenelle Bayer, Hope Coffin, Danielle Dunnwald, Kathryn Eberle, Renee Holst, and Marcie Korth

Abstract
Numerous research studies have focused upon the recent trend of decreased physical activity and increased obesity rates among female adolescents. This study examined the impact of the perceived social and physical environments upon female adolescents’ physical activity participation. Data was analyzed from 286 female adolescents enrolled in the Iowa Bone Developmental Study. Spearman correlations and multiple regressions were conducted in order to analyze which aspect of the environment was most influential. The results indicated there was a positive correlation between the social environment and self-reported physical activity (r = 0.47) but not with the physical environment. Within the social environment, family support, specifically parents watching adolescents participate, had the highest correlation (r = 0.39). Occupational therapists should consider these results when designing wellness programs for female adolescents.

References
How Older Adults Obtain Information

Lori Greenwood, Anne Marie Henderson, Diane M. Jackson, and Jill Schmidt, MS, OTR/L

Abstract
The older adult population often lacks knowledge to obtain information about services available which could assist them in maintaining health in their everyday lives (Billek-Sawhney & Reicherter, 2005). For occupational therapists, gaining knowledge about the preferred method of obtaining information by older adults can assist them in promoting engagement in instrumental activities of daily living (IADLs). A survey was developed by the researchers and given to community dwelling older adults. The researchers found older adults chose their family as their primary way to obtain information. Future research with older adults could include finding what community resources are utilized, barriers to participation in these services, and comparing the differences in the old and oldest old populations.

References
Sensory Processing and Borderline Personality Disorder

Krystal Flaherty, Brittany Prince, and Christine K. Urish, PhD, OTR/L, BCMH, FAOTA

Abstract
Borderline personality disorder (BPD) is one of only two diagnoses in the DSM-IV-TR that includes self-injury in the diagnostic criteria. Deficits in sensory processing may contribute to these self-injurious behaviors, but little research has investigated a potential link between the two. The purpose of this research was to identify a pattern of sensory processing among individuals with BPD through the use of the Adolescent/Adult Sensory Profile (AASP). Identifying a pattern between sensory processing and BPD will provide support for evidence-based practice interventions and provide healthcare practitioners with more effective sensory-based treatment to reduce self-injurious behaviors. The research revealed 78.6% of participants with BPD (n=14) scored more than most people in the area of low registration. Individuals did engage in self-injurious behaviors including: scratching (28.6%), cutting (21.4%), and hitting (21.4%). Most frequently identified feelings from self-injury: numb, relief, and guilt (all 35.7%). Future research should address: Development of a sensory processing instrument which is more sensitive to the DSM IV-TR criteria, ask research participants in which context of self-injury occurs to better understand this behavior, and a critical examination of the effectiveness of sensory interventions with individuals with BPD and other mental illness.

References
St. Ambrose Assistive Technology Outcomes Measure Study

Deepal Patel, Tyler Patton, Katie Jo Wedeking, Lynn Kilburg, DHSc, MBA, OTR/L, and Jon Turnquist, MOL, OTR/L, ATP

Abstract
Assistive Technology (AT) is designed to increase the quality of life and independence of individuals with various disabilities. There is a growing need to track outcomes in order to show evidence of the effectiveness of devices and services. Literature review of available outcomes measures, interviews with six clinicians, and analysis of the St. Ambrose University (SAU) AT Lab services were analyzed in order to identify what should be included in an outcomes measure. The Saint Ambrose Assistive Technology Outcomes Measure (SAATOM-2) was modified from an existing outcomes measure developed specifically for the SAU AT Lab, in order to increase compliance with the use of the outcomes measure. Use of the SAATOM-2 with reliability and validity testing should be conducted next.

References