Master of Occupational Therapy Program

Fifteenth Annual
Master of Occupational Therapy Student Research Poster Presentations

Friday, November 14, 2014
Rogalski Center Ballroom

Presentations
2:00 – 4:00 pm

Poster Viewing
4:00 – 6:00 pm
Abstract
This study explored occupational therapists’ self-perceived confidence in assistive technology (AT) skills based on the program curriculum received as impacted by Accreditation Council for Occupational Therapy Education (ACOTE®) accreditation requirements. A survey was e-mailed to occupational therapy alumni from a small midwestern university (N = 211). The response rate was 35% (N = 77). No significant difference was found between participants’ confidence in AT skills when grouped by graduation year or grouped under ACOTE® standards 1998 and 2006. Participants who took an AT special topics course, however, reported significantly higher confidence in AT skills than those who did not. Results suggest that while core curricula may provide sufficient prevocational assistive technology training, providing supplemental AT courses or modules within the program curricula may be more effective to enhance skills in this practice area.

References
Increasing Self-Efficacy and Reducing Fear of Falling in Older Adults: A Multifactorial Intervention Approach

Emily Catanese, Jennifer Diercks, Katie Duyvejonck, Kelsey Hartwig, Mary Lohberg, Stacy Richards, and Erin Phillips

Abstract
Falls are one of the leading causes of injuries among older adults (Jung, 2008). The high incidence of falls among this population suggests a need for fall prevention programs. The purpose of this research study was to create an effective multifactorial fall prevention program to decrease fear of falling and increase self-efficacy. Researchers recruited 6 participants ages 65 years or older from a local community exercise group to participate in a 4-week intervention program. The program consisted of weekly 1-hour education sessions addressing mindfulness strategies and fall prevention techniques. Confidence levels were assessed pre- and post-intervention using the Modified Falls Efficacy Scale (MFES) and a qualitative questionnaire. The researchers analyzed pre- and post-test data using the Statistical Package for the Social Sciences (SPSS) and a manual thematic analysis further supported by NVivo software. Although the results were not statistically significant, there was a numerical change that supports the benefit of a holistic fall prevention program incorporating the mind, body and environment. Researchers observed group discussion as a meaningful component of assessing the change in confidence levels among the participants. Additional studies should focus on alternate qualitative data collection methods in order to demonstrate the effectiveness of fall prevention programs.

References


Occupational Therapists’ Report of Assistive Technology Use in Schools

Katlyn Bokhoven, Nicole DePron, Kathleen Kadavy, Mercedez Messenger, Katelyn O’Neil, and Dr. Jill Schmidt

Abstract
The purpose of this descriptive study was to identify Midwestern pediatric occupational therapists’ preferences for assistive technology use in the classroom to promote independence and occupational engagement amongst school-aged children. A self-developed mixed methods survey titled, “Adaptive Equipment/Assistive Technology Survey—What’s in Your Toolbox?” was utilized to gather data. Quantitative and qualitative data were collected from five surveys related to the use of assistive technology/adaptive equipment in the school system. Quantitative results from this survey indicated that assistive technology was used most frequently to address fine motor deficits in children. Assistive technology was also frequently prescribed to address attention and cognition skills as well as play and leisure. The study also identified barriers to assistive technology use. The findings indicate that the main barrier to assistive technology use in the classroom was knowledge of the devices. Additionally, themes were created and analyzed from qualitative responses, focusing on identifying types of assistive technology devices used to address specific areas of concern. These themes included visual adaptations, high technology, sensory modulation, writing assists, modified school supplies, adaptive seating, computer devices, and communication aids. Further research is necessary to determine what assistive technology devices are most beneficial to improve a child’s occupational performance in the school setting.

References


Sensory & Employment Experiences of Individuals with Tattoos

Valerie Berner, Jacolyn Hudson, Leah Norcross, Rachel Pins, Jordan Pulliam, Audrey White, Dr. Jill Schmidt, and Dr. Christine Urish

Abstract
The purpose of this research was to examine the sensory processing styles and employment experiences of individuals with tattoos. A mixed methods research design was used. Fifty-three adults, 18 years or older, with at least one tattoo participated in the study. Participants completed the Adolescent Adult Sensory Profile (AASP) and a qualitative survey designed by the researchers. Most participants fell into the “similar to most category” in all four quadrants of the AASP: Sensation Avoiding (n=32), Sensation Seeking (n=32), Sensory Sensitivity (n=31), and Low Registration (n=26). Participants reported their employers did not provide positive or negative feedback for either their current (n= 28) or previous job (n=29). Out of 53 participants, only four reported intentionally covering tattoos at their current job, while 11 reported covering tattoos at their previous job. Twenty of the participants reported they felt there were no alternative outlets to obtaining tattoos. The remainder of our sample provided examples of other outlets on the qualitative survey. The results of the AASP did not indicate impaired sensory processing or the need for occupational therapy intervention. However, occupational therapy does have a role in treating sensory needs of adults, if those needs are interfering with daily life. Further study is needed to explore alternative outlets of adults and to determine if the amount of body area covered by tattoos would yield different sensory results.

References
The Evidence for the Effectiveness of Assistive Technology in the Transition Process for Individuals with Autism Spectrum Disorder

Katelyn Beres, MOTS, Jodi Brokus, MOTS, Kiley Hall, MOTS, Jennifer Kray, MOTS, Kaitlyn Stanley, MOTS, and Jill Schmidt, OTD, OTR/L

Abstract

As the rate of autism spectrum disorder (ASD) is rapidly increasing there is a stronger need for evidence based research and treatment. Currently, adolescents with ASD struggle to achieve post-secondary outcomes due to challenges associated with stigma and a general lack of social and vocational skills. Symptoms or characteristics of ASD are traditionally managed with medication or behavioral interventions. While the literature has shown these interventions to be effective in addressing specific behaviors, these interventions do not address functional life skills needed to transition to adulthood, increasing the demand for further research. A systematic review was conducted based on a developed focus question. Next, a comprehensive search of the literature was completed to investigate the evidence for the effectiveness of assistive technology in the transition process for individuals with ASD. The findings from this study indicate that the use of video modeling and video self-modeling may be effective interventions in teaching vocational and functional skills. Additionally, individuals with ASD who received assistive technology in high school obtained higher employment rates and enrollment in post-secondary school. Occupational therapists’ role when working with individuals with ASD is to address functional life skills necessary for successful transition into adulthood. Implications from this study for occupational therapists to consider are incorporating assistive technology into interventions and advocating for increased involvement in the transition process.

References


Validation of FitBit® at Varying Speeds and Body Placements

Lauren Devereaux, Julianna Gillam, Kaila Hoffman, Chelsee Lisk, Kasey Lundstrom and Phyllis Wenthe

Abstract

Occupational therapists often treat patients with conditions that lead to increased fatigue and limited arm swing. The FitBit® could be used as a cost-effective accelerometer for objectively measuring energy conservation in order to replace the more commonly used self-report assessments. The study compared the validity of the FitBit® monitor to actual step count in order to determine if placement of the FitBit®, arm swing, and ambulation speed affects accuracy. Fifty adults performed three, three-minute walk tests (1.5, 2.0, 2.5 mph) wearing the FitBit® One and FitBit® Flex on three body locations. FitBit’s® step count was compared to actual step count. A twenty-meter walk test was completed without using arm swing. Intraclass correlations revealed increased agreement between actual step count and the FitBit® One and FitBit® Flex on three body locations. T-tests and Bland Altman plots found all three placements of the FitBit® at 2.0 mph demonstrated agreement and the hip at 2.5 mph had no systematic error. The results of the study suggest that the FitBit® One placed on the hip at higher speeds is the most accurate at measuring step count. The FitBit® One and the FitBit® Flex should be used with caution when obtaining objective measures in the clinic due to possible malfunctions.

References


What's APPening in Occupational Therapy: Frequently used pediatric applications

Alyssa Eckstein, Therese Nagovan, Ainsley Wadle, Kassi Zbanek, and Theresa Schlabach

Abstract
Occupational therapy practitioners are trained in the domain of assistive technology (AT). An emerging area of AT today is use of smart devices such as the iPad. Practitioners need to "have expertise in providing AT services as well as a working knowledge of AT devices and apps that enhance learning and independence" (Frolek Clark & Chandler, 2013, p. 502). Emerging evidence shows occupational therapists are using devices in therapy, but the specific choice of applications is unknown. The purpose of this study was to discover the 25 most frequently used tablet applications by pediatric therapists with children aged 5-21, and to assess the qualities of these applications. Researchers surveyed pediatric occupational therapists. This survey identified 16 applications used by therapists, and also discovered a variety of elements related to devices used by therapists and demographic information, including job title, practice setting, and type of electronic devices used in practice. These sixteen applications were rated using evaluation criteria developed by researchers. The 25 most frequently used applications could not be identified possibly due to the abundant, ever-changing nature of the application market. The results suggest therapists are indeed using iPads and other devices to supplement traditional therapy methods. Future research should focus on individual applications and the outcomes achieved when used as interventions.

References

