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CHHS March 2013 E-Newsletter

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CHHS March 2013 E- Newsletter

CD Distance Learning Grad Student Tells of Hurricane Sandy Experience

Marcella Fernandez, a graduate student in the Communication Disorders Cohort 8-Distance Learning program recently wrote an email to President Ransdell & Dr. John Bonaguro expressing her gratitude for the Communication Disorders faculty that so willingly worked with her during Hurricane Sandy. "My professors, **Dr. Lauren Bland** and **Janice Smith,** MA, CCC-SLP offered their full support and worked with us students that had storm Sandy related issues." said Fernandez in the email. "I am proud to be a student at WKU and to have such wonderful professors."

Fernandez provided us with a letter and pictures detailing some of the things she witnessed and had to endure during Hurricane Sandy. Please click here to read her story and see pictures.

Marcella Fernandez

Dr. Lauren Bland

Janice Smith, CCC/SLP

Students and Faculty Travel to Belize

The students and faculty at Western Kentucky University are presented with a rare and unique opportunity. Several disciplines within the College of Health and Human Services participate in the Belize Service Learning Program in Belize, Central America, during Winter Term. Currently the departments participating are Allied Health (Dental Hygiene), Communication Disorders, Nursing, Public Health, and Social Work.

Students and faculty will be part of an interdisciplinary healthcare delivery team that will assess the health needs of the community of Gales Point, Belize, a remote village where residents could go their entire lives and never see a doctor. The residents of this community will be provided with medical/dental treatment at no cost to them. Medical treatment ranges from screenings to wound care to diagnosis of chronic conditions and supplying medications for those conditions. The dental treatment includes an array of preventive treatments as well as fillings and surgical treatment for patients with urgent needs. Specific outreach deals with diseases prevalent in the community, and how best to address the needs associated with the prevention and maintenance of those diseases.

The group prepares not only to treat patients, but also to provide an educational outreach to local school children and other persons in the community that would benefit from applied health education. This experience provides students from WKU with the opportunity to participate in "portable" clinic in an impoverished, remote community, and hopefully create within them a desire to continue to serve their fellow man, whether in a developing nation or right here at home.

Students interested in the Belize Service Learning Program can find more information and an application to the program (when available) on the website: www.wku.edu/belizeprogram

Dr. Daniel Carter, Dental Director of the Institute for Rural Health and Belize Program Coordinator, was interviewed while there about the Belize Service Learning Program. To see the interview, please visit:

http://www.lovetv.com.bz/2013/01/09/visiting-us-university-students-engage-in-service-learning-program/

Department of Public Health Visits Logan Aluminum

The Graduate and Undergraduate Worksite Health Promotion students, along with the Environmental and Occupational Epi students from WKU's Department of Public Health took a fieldtrip to Logan Aluminum on February 12, 2013. Johnny White, HR of benefits, medical and wellness, presented information on Logan's Benefit, Medical and Wellness (BMW) program.

School of Nursing Promote Colon Cancer Awareness

March is Colon Cancer Awareness month and Friday, March 1st was "Dress in Blue" day. The purpose of "Dress in Blue" day is to increase the awareness of colon cancer and the importance of screening. Dr. Cathy Abell, faculty member in the School of Nursing, and April Riney, RN to BSN student, provided information regarding colon cancer to about 60 local UPS employees.

Pictured left to right are: Steve Tomes, Crystal Carson, Beth Goins, Dr. Cathy Abell, Greg Stahl, April Riney Chad Garrett, Stephanie Keown, and Scott Wilson.

DPT Program Director Receives Distinguished Author Award

The Journal of Manual & Manipulative Therapy announced Dr. Harvey Wallmann, Director of the WKU Doctorate of Physical Therapy program, as one of the 2012 winners of The John Medeiros Distinguished Author Award. The winning paper was:

"Safety of cervical spine manipulation: are adverse events preventable and are manipulations being performed appropriately? A review of 134 case reports"

Emilio J Puentedura, Jessica March, Joe Anders, Amber Perez, Merrill R Landers, Harvey W Wallmann and Joshua A Cleland

The winning paper was identified by the editorial team as the most impactful paper published in JMMT for 2012. The award was presented at the APTA CSM in San Diego in February 2013.

To read the paper in its entirety, please visit the link above or click here to view the PDF version.

KEMSA Program Featured in Daily News

The Kentucky Emergency Medical Services Academy (KEMSA) was featured in the Bowling Green Daily Newspaper in February. KEMSA offers a 65-credit-hour associate's degree through the Department of Allied Health. For more information on KEMSA, please visit http://www.wku.edu/kemsa/index.php, call 270-745-8565, or email lee.brown@wku.edu. To view the article that ran in the daily news, please click **here**.

DPT Faculty Publications

Faculty members in the Doctorate of Physical Therapy program have had several publications since joining CHHS.

Neelly K, **Wallmann HW**, Backus C. Validity of Measuring Leg Length with Tape Measure Compared to CT Scan. *Physiotherapy Theory and Practice*. *Accepted*.

- A frequently used technique to measure leg length (LL) is the supine tape measure method (TMM). However, radiographic imaging, more recently computed tomography (CT) scans, has been considered the most accurate. The purpose of this study was to assess the validity of the TMM for measuring LL compared to CT scans. Additionally, intrarater and interrater reliability of the TMM were assessed. LL measurements of 30 adults (mean = 38.4 years, SD = 13.1 years) were obtained by two physical therapists (PT) using the TMM method, anterior superior iliac spine (ASIS) to medial malleoli. Lower extremity CT scans were completed and subsequent LL measurements were obtained. The validity of a single TMM LL compared to CT scan was $ICC_{(2,1)}$ of 0.984 for examiner 1 and 0.978 for examiner 2, while the $ICC_{(2,2)}$ validity of the mean of two measures was 0.992 and 0.990, respectively. Excellent intrarater ($ICC_{3,2}$ of 0.990 and 0.985) and interrater reliability ($ICC_{2,1}$ of 0.991) were also found. The supine TMM for measuring LL was shown to have excellent validity when compared to CT scans and excellent intrarater and interrater reliability. These results indicate that the supine TMM is a valid and reliable clinical measurement for PTs when measuring LL.

  ***Abstract from http://informahealthcare.com/doi/abs/10.3109/09593985.2012.755589**

Delgado T, Kubera-Shelton E, Robb R, Hickman R, **Wallmann HW**, Dufek J. Effects of footstrike on low back posture, shock attenuation, and comfort. *Medicine and Science in Sports and Exercise*. 2013. DOI:10.1249/MSS.0b013e3182781b2c.

- Barefoot running (BF) is gaining popularity in the running community. Biomechanical changes occur with BF, especially when initial contact changes from rearfoot strike (RFS) to forefoot strike (FFS). Changes in lumbar spine range of motion (ROM), particularly involving lumbar lordosis, have been associated with increased low back pain. However, it is not known if changing from RFS to FFS affects lumbar lordosis or low back pain. The purpose of this study was to determine whether a change from RFS to FFS would change lumbar lordosis, influence shock attenuation, or change comfort levels in healthy recreational/experienced runners.

  ***Abstract from http://www.ncbi.nlm.nih.gov/pubmed/23073217**

Wallmann HW, Evans NS, Day C, **Neelly KR**. Interrater Reliability of the Five-Times-Sit-to-Stand Test. *Home Health Care Management & Practice*. 25(1):13-17, 2013. DOI: 10.1177/1084822312453047.

- The sit-to-stand (STS) task, an important activity required to maintain functional independence, can be used to assess physical performance. The purpose of this study was to determine the interrater reliability of the five-times-sit-to-stand test (FTSTS). Ninety-two subjects, mean age of 65 years, performed the FTSTS without the use of the upper extremities. A video recording of each subject's performance was independently assessed to determine the test completion time by three clinicians with similar education and years of clinical experience. An intraclass correlation coefficient (ICC2,1) was used to determine the interrater reliability of the FTSTS. Statistical analysis revealed excellent interrater reliability among all three researchers: ICC = 1.000. When clinicians with equal education and clinical experience administer the FTSTS, it has excellent interrater reliability.

  ***Abstract from http://hhc.sagepub.com/content/early/2012/06/03/1084822312453047.abstract?rss=1**

Wallmann HW, Player KR, Bugnet, M. Acute effects of static stretching on balance in young versus elderly adults. *Physical & Occupational Therapy in Geriatrics*. 30(4):301-315, 2013. DOI: 10.3109/02703181.2012.719076.

- The purpose of this study was to investigate the acute effects of static stretching of the gastrocnemius muscles on the dynamic balance of healthy young and elderly adults. Thirty adults aged 18 to 35 years, and 18 elderly adults aged 65 years and older participated in this study. Utilizing the NeuroCom SMART Balance Master, each subject performed the limits of stability (LOS) test twice before implementing a 30-s static stretching protocol of the gastrocnemius muscles and once after the intervention. There was a significant difference between the young and elderly groups for all outcome measures on the LOS test after the first measurement (pretest 1) ($p \leq 0.004$). Movement velocity for pretest 1 was significantly slower than pretest 2 ($p \leq 0.005$), while endpoint excursion distance improved across all points ($p \leq 0.039$). For the post-test, all the components of the LOS test, except endpoint excursion, showed no significant treatment effect ($p \geq 0.016$) with the Bonferroni corrected alpha of 0.01. Although differences between young and elderly subjects were observed, these results indicate that short duration static stretching of the gastrocnemius muscles has little or no effect on dynamic balance in healthy young and elderly adults.

  ***Abstract from http://informahealthcare.com/doi/abs/10.3109/02703181.2012.719076**

Wallmann HW, Christensen SD, Perry C, **Hoover DL**. The Acute Effects of Various Types of Stretching Static, Dynamic, Ballistic, and No Stretch of the Iliopsoas on 40 Yard Sprint Times in Recreational Runners. *International Journal of Sports Physical Therapy*. 7(5):540-547, 2012.

- The potential adverse effects of static stretching on athletic performance are well documented, but still appears to be controversial, especially as they relates to sprinting. The prevalence of this practice is demonstrated by the number of competitive and recreational athletes who regularly engage in stretching immediately prior to sprinting with the mindset of optimizing their performance. The purpose of this study was to examine the effects of acute static, dynamic, and ballistic stretching, and no stretching of the iliopsoas muscle on 40-yard sprint times in 18-37 year-old non-competitive, recreational runners.

***Abstract from http://www.ncbi.nlm.nih.gov/pubmed/23091787**

Puentedura EJ, Anders J, March J, Perez A, Landers M, **Wallmann H**, Cleland J. Safety of cervical spine manipulation: are severe adverse events preventable and are manipulations being performed appropriately? A review of 134 case reports. *Journal of Manual & Manipulative Therapy.* 20(2):66-74, 2012. **DOI:** 10.1179/2042618611Y.0000000022.

- To retrospectively analyze all available documented case reports in the literature describing patients who had experienced severe adverse events (AEs) after receiving CSM to determine if the CSM was used appropriately, and if these types of AEs could have been prevented using sound clinical reasoning on the part of the clinician.

***Abstract from http://www.ingentaconnect.com/content/maney/jmt/2012/00000020/00000002/art00003**

Wallmann HW, **Hoover DL**. Research and Critical Thinking: An Important Link for Exercise Science Students Transitioning to Physical Therapy. Invited Editorial. *International Journal of Exercise Science*. 5(2):93-96, 2012.

- Critical thinking skills are increasingly necessary for success in professional health care careers. Changes in the contemporary healthcare system in the United States arguably make these critical thinking skills more important than they have ever been, as clinicians are required on a daily basis to evaluate multiple bits of information about patients with multiple-systemic health concerns and make appropriate treatment decisions based on this information. We believe the IJES, with its emphasis on engaging undergraduate and graduate students in research and scholarly activity, is a valuable resource for promoting the higher-order critical thinking skills necessary for preparing exercise science students with an interest in.

***Abstract from digitalcommons.wku.edu/cgi/viewcontent.cgi?article=1435&context=ijes**