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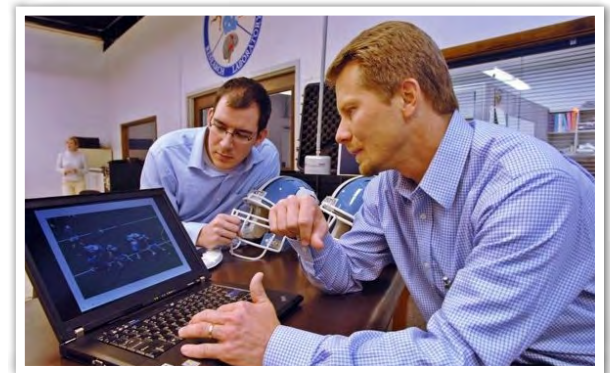
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## Guskiewicz at the “Head” of His Class

Baseball, they say is America’s pastime but football is its passion, and to those who chronicle the impact of sports on American culture, the passionate devotion of millions of Americans to football is nothing short of mind-blowing. To Kevin Guskiewicz, Chairman and Kenan Distinguished Professor in the Department of Exercise and Sport Science at UNC-Chapel Hill, the game can be brain-blowing as well. Guskiewicz has spent his career studying the effects of sport-related concussion on balance and neurophysiological function in high school, college and professional athletes. And as the violence of the game has ramped up, so have demands for his services as consultant and as a voice to the public at large.

First some background: Violence in football may not be at the level it was during the early 19<sup>th</sup> century when eighteen college football players died on playing fields and President Theodore Roosevelt called college football coaches to the White House to discuss the issue, but to deny that the



Drs. Kevin Guskiewicz (right) and Jason Michalik (left), Co-Directors of the Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center at the University of North Carolina at Chapel Hill review video footage from one of UNC’s football practices.

modern game poses a threat to lifelong mobility or that it jeopardizes chances for a healthy cognitive, emotional life is simply to deny the facts on the ground.

According to a recent survey by The Center for Injury Research and Policy at Nationwide Children’s Hospital, emergency rooms treated an estimated 5,252,721

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## EDITORIALLY SPEAKING

## Time to Speak Out on Football Violence?

Shirl Hoffman, KT Editor



Shirl Hoffman

The lead story in this issue of *KT* about Kevin Guskiewicz and his work points a finger at an issue that those of us in kinesiology departments (except of course, specialists in athletic training) have been all too quiet about.

The relatively high risk of injuries—especially concussions—to those playing the game of football has been feature material for leading newspapers, blogs, and television and radio commentators, but so far, I've seen little response from the community of scholars that claim special knowledge and professional prerogative in the area of sports. Maybe its time we make our voice heard on the matter, but of course, this assumes, that we all agree that some modification or curtailment of the game is in order. That, in all likelihood, is unlikely to be the case.

Because concussions can have serious medical implications, they grab most of the attention even though injuries to limbs, backs, and joints, many of them causing lifelong disability, outnumber injuries to the head.

Anyone who has surveyed injury statistics appreciate that they vary, sometimes widely, yet all center on one indisputable fact: football is the most dangerous popular sport. To the statistics cited in the article, we can add this tidbit: according to researchers at The Ohio State University School of Medicine, an estimated 517,726 *high school* football-related injuries occurred in games played during the 2005-2006 season. This amounted to 12.04 injuries per 1000 athlete-exposures, a substantially higher rate than has been previously reported. Their report also points out that high school football players sustain a disproportionate number of fractures and concussions.

The high rate and potential seriousness of injuries to adolescents who play under the protection of the *loco parentis* doctrine should alarm us, but not blind us to the fact that injuries occur at even higher rates in college and professional athletes. Approximately half of NFL players are injured each season. The injury rate for the NFL is eight times higher than any other professional sport. Between 2001 and 2005, 1,200 players suffered *knee injuries*.

If there is a poster boy for the carnage of professional football surely it is former

All-Pro Oakland Raider Jim Otto whose long career included more than a dozen fractures to his nose, two hundred stitches to his face, a total of 28 football injury-related surgeries, including repeated operations on both knees, both elbows, fractures to all of his fingers and broken ribs. Following his retirement, he petitioned the IRS to allow him to depreciate his body as a declining asset; much like one might depreciate a piece of factory equipment. Just before his untimely death, the once scintillating quarterback of the Baltimore Colts, Johnny Unitas, was a bona fide invalid who couldn't button his shirts, zip zippers or hold a cup of coffee thanks to repeated blows to his throwing arm.

Little wonder we frequently hear professional players wondering if trading in a healthy body for fame and fortune makes sense. Lito Sheppard, star cornerback for the Philadelphia Eagles, spoke for a multitude of players when he told a reporter: "I don't want to hurt anybody seriously, and I don't want to get hurt seriously. What we've got to do is find a way to play this game without killing each other."

I have found no moral calculus, let alone

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## Highest Paid Athletes From 180 Countries

**E**SPN *The Magazine* has published a list of the highest paid athletes (or prize money) in each of 180 countries. “Annual Salary” was based on the most recently completed season or calendar year and in cases where official salary figures were unavailable, the magazine estimated the number based on information from multiple sources, including leagues, agents, consulates, embassies, sports federations, cultural centers and the U.N. Money from endorsements, bonuses, etc were not included.

Overall, the two highest paid athletes were from the USA and the Philippines--- represented respectively by New York Yankee Alex Rodriguez and boxer Manny Pacquaio. Each earned a reported \$32 million dollars last year. Close behind was Finland represented by race car driver Kimi Parkkonen (\$26,300,000), Spain, represented by Formula I driver Fernando Alonso (\$22,736,000), and Venezuela represented by New York Mets player Johan Santana (\$21,644,000). The range of salaries was enormous with the highest paid athletes from smaller and poorer countries generally earning much less even though many played for teams in larger and more developed countries.

For example, Djibouti’s soccer star Ismail Ahmed Kidar Hassan earned \$51,500 playing for a Slovakian soccer club, and Rwanda’s Oliver Karekezi was paid \$52,000 while playing for Oster, a Swedish soccer club. At the bottom of the list was Tahiti, whose highest paid athlete, Fabrice Santoro, earned only \$19,500 on the ATP tennis tour. No female athletes made the list.

Salaries paid athletes often reflect the economic vitality of the country in which they *play*, but not necessarily the general economic *standard of living in their homeland*. This can be important in interpreting the full impact of their salaries since athletes often live only temporarily in the country where their team is located returning to their homeland during the off season. In such cases the purchasing power of their salary, while perhaps not remarkable in the country where they play, might set them far apart from their countrymen.

One way to capture this is to view their salaries in terms of their country’s economic



The UK’s number one dart player, Phil Taylor, earned \$1,041,000 in prize money last year. Photo compliments of Professional Darts Corporation; “Lawrence Lustig/PDC”

vitality (total economic output). In economic terms this is the gross domestic product per capita (GDPP) which is derived from dividing a country’s gross domestic product by the number of residents. Generally, economists view GDPP as an approximation of the standard of living of a country. Thus, the salary of an athlete playing and living in a Western country (where GDPP is higher) may not be as rich—relative to the economic standard in his country—as a teammate who is paid much less but resides

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## PRESIDENT'S MESSAGE

## Is It Fall Already?

T. Gilmour Reeve, AKA President



T. Gilmour Reeve

We've just celebrated the Fourth of July and I hope that everyone has enjoyed their summer. But it's over...It's time to start planning for next year!

The academic year is a combination of recurring events and new experiences. At

the start of the fall semester, the recurring events are those things that have become part of the department, college, or university traditions. The departmental fall meeting is a classic example. These meetings most often occur the week before classes start and faculty typically expect that they spend anywhere from a half day to several days in meetings. Some colleges have faculty meetings and universities may offer events for new faculty, convocations for faculty and students, or other more socially oriented activities. It doesn't take long for returning faculty members to become cynical of these meetings because they are, well, recurring; the same thing occurs each year!

The solution is to shake things up, intro-

ducing new experiences for faculty during these meetings. However, department chairs are often constrained in their planning because they have to work around scheduled college and university events and because they have important issues to be addressed by the faculty. Even when the timing of these departmental events are determined by tradition ("we always meet on Tuesdays!") or other scheduled meetings ("new faculty orientation is always on Mondays!"), department chairs should use strategies to create some excitement and interest in the recurring events (i.e., departmental meetings).

What is interesting is that across a university campus these activities, during the week of meetings, before the fall semester vary greatly. But department chairs and faculty are guilty of tunnel vision, not realizing the range of opportunities. Here are some suggestions to add some interest and strengthen the faculty collegiality:

- **Provide more than an agenda before the meetings:** distribute a fact sheet including student enrollment, retention, and graduation, research publications and expenditures, and outreach activi-

ties from the previous year; provide recent articles on topics about the state of higher education or kinesiology from *The Chronicle of Higher Education* or *Kinesiology Today*; identify important issues, provide background information, and raise questions that need to be discussed by the faculty.

- **Assign faculty to be responsible for specific topics on the agenda:** Associate chairs and committee chairs often provide reports and updates but also consider asking other faculty to lead discussion on different topics; meet with the faculty member prior to the meeting to review the issue and provide information that will be important to be successful in leading that part of the meeting (but don't ask someone to take a topic that they're not suited to the task).
- **Invite student leaders to participate in part of the meeting:** Include the student officers from your undergraduate and graduate clubs to discuss their

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## Tai Chi Chih Successful in Battling Depression in Seniors

Bill Bowman, KT Writer

Visually similar to tai chi chuan but lacking the martial-arts emphasis, the meditative exercise tai chi chih is comprised of a series of 19 movements and one pose. Developed in 1974 in Albuquerque, New Mexico, this practice has spread primarily through word of mouth to many other areas of North America and the rest of the world.

The ostensible purpose of Tai Chi Chih is to increase circulation and balance the body's vital energy resource known as "chi." It is characterized by slow, gentle movements in a soft, flowing, continuous motion. It is appropriate for people of all ages and can be practiced standing or sitting. Movements can be adapted to individual needs.

While primarily used as a stress reliever, tai chi chih has now been shown to have an unforeseen medical value: it can be a successful weapon in battling depression in seniors. This was the key finding in a study by UCLA professor and geriatric psychiatrist Helen Lavretsky and several of her colleagues, which was published in the *American Journal of Geriatric Psychiatry* in March.

The study compared two groups of seniors being given the antidepressant drug

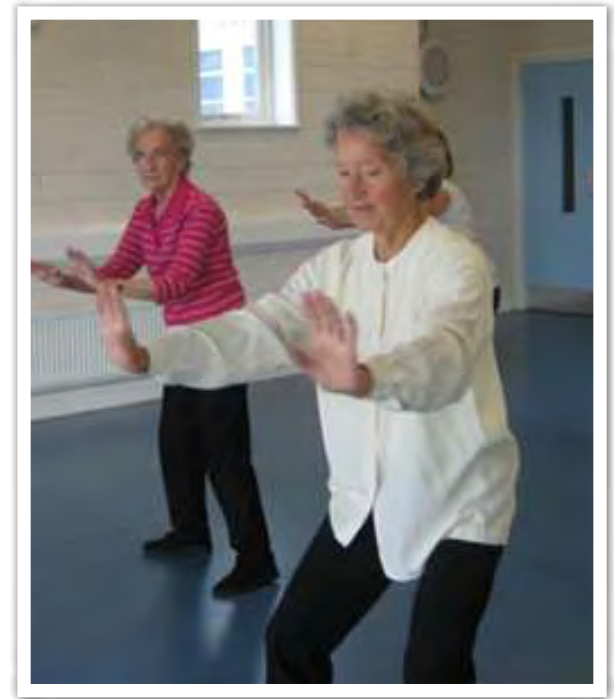
escitalopram. Over the study's 10 weeks, one group participated in a regular tai chi chih class, while the other attended a health education class. The results showed that 94% of the tai chi chih group had significant improvement on depression scales, compared with (an also impressive) 77% in the health education group. In addition, 65% of the tai chi chih participants experienced remission, compared with 51% of the health education group.

"The benefits included overall health functioning in addition to the remission of depression," Lavretsky said. "The participants showed pretty dramatic benefits. They commented on how they became more energetic, just had much more energy and improved memory."

Much of the memory improvement in the tai chi chih group was due to the introduction of three new movements in each class. The participants were given homework: to learn the new movements that would be included in the next class.

"It engaged their memory, so their memory improved as they learned new movements," Lavretsky said.

As the Baby Boomer generation ages



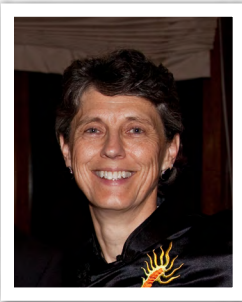
into its senior years, Lavretsky sees mind-body activities such as yoga and tai chi chih becoming more and more popular. Rising costs of health care and medicine may boost participation rates in these activities to all-time highs.

"I see an amazing increase in participation among middle-aged people, the baby boomers," Lavretsky said. "They're trying

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# Virtual Workout Partners Spur Better Results

Michigan State University Relations



Deborah Feltz

Can't find anyone to exercise with? Don't despair: New research from Michigan State University reveals working out with a virtual partner improves motivation during exercise.

The study led by Deborah Feltz, chairperson of MSU's Department of Kinesiology, is the first to investigate the Kohler effect on motivation in health video games; that phenomenon explains why inferior team members perform better in a group than they would by themselves.

The research, to be published in an upcoming edition of the *Journal of Sport and Exercise Psychology*, was funded by a \$150,000 grant from Health Games Research, a national program of the Robert Wood Johnson Foundation's Pioneer Portfolio. "Our results suggest working out with virtually present, superior partners can improve motivation on exercise game tasks," Feltz said. "These findings provide a starting

point to test additional features that have the potential to improve motivational gains in health video games."

By incorporating design features based on the Kohler effect, health video games could motivate vigorous exercise, she added.

"One of the key hurdles people cite in not working out is a lack of motivation," Feltz said. "Research has shown working out with a partner increases motivation, and with a virtual partner, you are removing the social anxiety that some people feel working out in public."

As part of the study, Feltz and her research team used the Eye Toy camera and PlayStation 2 to measure if a virtual partner motivated people to exercise harder, longer or more frequently. A plank exercise (which strengthens a person's core abdominal muscles) was used for nearly all 200 participants.

Participants performed the first series of five exercises alone holding each position



for as long as they could. After a rest period, they were told they would do the remaining trials with a same-sex virtual partner whom they could observe during their performance. The partner's performance was manipulated to be always superior to the participant's. Results showed that task persistence was significantly greater in all experimental conditions; those who exercised with a more-capable virtual partner performed the exercise 24 percent longer than those without.

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## EXECUTIVE DIRECTOR'S CORNER

## Staying in Touch With the World of Practice

Amelia Lee, AKA Executive Director



Amelia Lee

For the first time in American history a comprehensive plan for promotion of life-long physical activity among Americans of all ages has been developed and supported by medical, political, and educational leaders. The

National Physical Activity Plan (NPAP) (<http://www.physicalactivityplan.org>) was launched one year ago and represents an unprecedented opportunity for kinesiology researchers and practitioners to provide leadership during the implementation phase. To accomplish this goal, however, our field may need to expand our advocacy role in promoting physical activity. One of the first ideas to consider is “getting the word out” about the plan and the initiatives and policies that are currently underway to encourage Americans of all ages to become more physically active. While building advocacy for promoting physical activity is rather complex, we can expand our role by shar-

ing expertise and discussing the issues involved with our partners in business and industry, community parks, public health departments, recreation units, sport organizations, rehabilitation centers and schools. My suggestion is that we stay in touch with the world of practice.

Kinesiology departments can help build awareness of the plan, its promotion reports, as well as other federal, state, and local government initiatives by making sure that both graduate and undergraduate students have the fundamental and essential knowledge related to the major problems and solutions associated with physical activity. In an attempt to provide some uniformity in curricular offerings in kinesiology and to assure that students have the critical categories of knowledge, the AKA has identified a proposed undergraduate core that includes principles and experiences focused on the elements that are central to physical activity across the lifespan. <http://www.americankinesiology.org/whitepapers> Though the core competencies have not yet been approved by the membership, the central focus of the recommended content

is physical activity and its role in health and wellness across the lifespan. Kinesiology students should be able to describe and explain the role of physical activity in promoting health, as well as develop and recommend evidence-based programs for the world of practice. This is a step in the right direction and currently there are many promising avenues that departments can consider for building awareness of the national plan. I will mention just a few. First, students in kinesiology should be familiar with the current physical activity plan implementation activities highlighted by the National Coalition for Promoting Physical Activity (NCPA), the nation's leading voice for physical activity. This group provides updates on implementation activities, and an online library of physical activity resources, fact sheets and reports. For more information go to: <http://www.ncppa.org>. Second, kinesiology majors need to keep pace with the evidence-based strategies that are being implemented at the national level to address some of the emerging health challenges and more serious problems that might be solved. The CDC has

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## Resistance Training Pays Off for Older Adults



Mark Peterson

Two meta-analyses recently reported in *Aging Research Reviews* and *Medicine and Science in Sports and Exercise* have shed new light on the benefits of progressive resistance exercises for older adults. The studies, conducted by Mark Peterson and Paul Gordon of the Laboratory for Physical Activity and Exercise Intervention in Department of Physical Medicine and Rehabilitation at University of Michigan, were the first to assess treatment effects for multiple strength measures and lean body mass while considering the potential moderating variables of dosage, treatment durations, and age ranges on adaptation. A follow-up review in the *American Journal of Medicine* spoke to the clinical implications of the studies. Previous meta-analyses have focused only on lower body strength gains (leg extension). Peterson and colleagues were the first to look at the effects of resistance exercise

on whole body strength gains (leg press, knee extension, chest press and lat pull) in conjunction with moderating variables of age, dosage, and treatment durations. They found that, among adults over 50 years of age, progressive resistance training of approximately 18-weeks duration was strongly associated with increases in upper body strength (25% gains) as well as lower body strength (30%). Findings also pointed to an association between progressive resistance exercise and increases in lean body mass. After 20 weeks of resistance exercise both men and women experienced an approximate 1-kg increase in lean body mass, a modest gain, says Peterson, but important given the nearly 0.2-kg annual decline that can occur through sedentary lifestyles beyond age 50.

Their meta-analyses also looked at the association between “dosage” and adaptive responses. They found that training intensity (% of 1-repetition maximum) was a significant predictor of full body strength capacity, which is to say, incremental increases in intensity in resistance loads were associated with greater absolute and relative improvements in strength. In addition, they

found training volume (the total number of performed sets of resistance exercise) to be indicative of greater increases in lean body mass.

Current ACSM guidelines for older adults recommend “muscle-strengthening activity” to be performed 2 or more days per week using a single set of 8-10 resistance exercises performed at a moderate to high level of effort. The authors point out that the evidence from their study supports the benefit of prescribing *progressive* resistance exercise and relatively greater volumes of exercise to this population. Notwithstanding the critical importance of modifying exercise for individuals with existing morbidities, they recommend that otherwise *healthy* adults can benefit from gradual increases in training volumes and intensities to accommodate improvements in their strength and muscle hypertrophy in regimes performed more frequently (3-4 days per week).

**An interview with Mark Peterson about the study can be found on Page 22**

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# Changing Attitudes and Expanding Lives in Georgia: The UGA Pediatric Exercise and Motor Development Clinic Impacts Students' Lives and Gives Hope to Disabled Children

Amy Rose, KT Writer

Tuesday evenings on the University of Georgia campus, people are finding some amazing transformations taking place. Students become teachers; strangers become lifelong friends; disabilities become the norm and challenges become accomplishments. These transformations have been happening for over 35 years at UGA's Pediatric



Dr. Michael Horvat (left) has directed the UGA Pediatric Exercise and Motor Development Clinic for the past 26 years.

Exercise and Motor Development Clinic, which provides hands-on experience for students enrolled in Dr. Michael Horvat's Adapted Physical Education classes. Horvat has been the director and driving force behind the clinic for 26 years. "I can't visualize doing the class without the clinic. They forget what they do in class, but they remember what they learn in the clinic," Horvat said.

The program serves 25-35 children a semester with varying disabilities. Some have physical impairments like cystic fibrosis and spina bifida, others have neurological and cognitive impairments such as autism and behavioral delays. Families are recommended to the clinic by local physicians, hospitals, schools and social organizations. The clinic doesn't advertise its services in order to hold down the size of the group. "If it got too big we couldn't do an effective job and since it is a teaching practicum that's a priority," Horvat says. However, he's never been known to turn a child away. The



VGA Photographer Andrew Davis Tucker

cost of the clinic is \$25 per child for each nine week session. The fee not only helps defray some of the costs of the program, but also is an incentive for children to attend classes regularly.

The program emphasizes the use of exercise and motor development to improve functioning. Parents complete a survey and consultation to determine goals for their

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## Short Shots

### College Students Who Cheat Likely to be Narcissists

A study out of The Ohio State University at Newark suggests that narcissists are motivated to cheat because their academic performance functions as an opportunity to show off to others, and they don't feel particularly guilty about their actions. The study of 193 college students assessed feelings toward academic dishonesty and self-reports of cheating. Exhibitionism, a component of narcissism, was strongly associated with lack of guilt for engaging in cheating.

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Source: Brunell, A.B et al. (2011) Narcissism and academic dishonesty: the exhibitionism dimension and lack of guilt. *Personality and Individual Differences*. (February ) 50. 323-328

### Getting Down to the Barebones of Exercise

Hard hit by the recession a commercial gym in the town of Arrigorriaga located in the Basque region of Spain has begun offering exercise sessions for nudists. While the president of the local nudist association claims that exercising without clothes is "much more comfy", some wonder if exercising in the buff could be all that enjoyable. To some, it apparently is a liberating experience; to others the vision of heretofore covered body parts getting entangled in exercise apparatus is frightening. And there is the matter of hygiene. An owner of a traditional gym told the BBC that she thinks it "is the most unhygienic thing in the world." "It's your clothes that catch the sweat when you work out," she said. "So where does all the sweat go, if you're naked? Onto the machines? The floor? Or onto the person next to you?" The owner of the nudist gym is quick to point out that they do provide towels "to prevent slippage."

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Article and photos at: <http://www.bbc.co.uk/news/world-europe-13162118>

### Links Between Sports Participation, Cardiorespiratory Fitness, and Body Fat Largely Explained by Heredity

Heredity has long been linked to exercise behavior and obesity. Now comes an impressive study out of HJelt Institute (Finland) showing strong links between heredity, sports participation, cardiorespiratory fitness and obesity. Researchers studied 304 young adult twin individuals selected from the population-based FinnTwin16 study. Using the sport index from the Baecke questionnaire they found associations between sport participation and VO2 max, body fat percentage, and low waist circumference. The associations between sport index and the three measures were largely explained by genetic factors. The authors conclude that genetic factors explain a considerable part of the associations between sports participation, cardiorespiratory fitness, and obesity.

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Article at: Mustelin, L. (2011) Associations between sports participation, cardiorespiratory fitness and adiposity in young adult twins. *Journal of Applied Physiology*, March, 110, (6), 681-686.

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## Short Shots

### Family Violence and NFL Football

Following a scolding from Empress Pom-paea for returning late from the races at the Circus Maximus, Nero, possibly annoyed that his favorites hadn't won that day, proceeded to kick her to death. A new study reported in the *Quarterly Journal of Economics* suggests that the sentiments that moved Nero to commit that dastardly act are still with us: not all of the violence on NFL game day happens between the goal posts. The study picks up the thread of earlier research showing spikes in domestic violence following football games, some of which has since been debunked. In this well controlled study, investigators found that police reports on domestic violence (men on women) rose 10% (compared to non-game days) when local NFL teams lost games they were favored to win. The investigators compared pre-game odds to actual results for 900 games played by six NFL teams between 1995 and 2006, and matched the data to records collected from 763 jurisdictions from a data base of local police reports. Violence most often occurred during the last hour of the game

and the two hours following. Abuse was more likely (20% increase) following a loss to a traditional rival (two times more frequent than when losing to a non-rival team), and was more likely following upset losses to a rival team when the local team was still in the playoffs (17% more frequent). Upset losses led to large increases in family violence but not losses in games which were expected to be close. Results of games had little effect on away-from-home violence

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Article at: Card, D. & Dahl, G. B. (2011). Family Violence and Football: The Effect of Unexpected Emotional Cues on Violent Behavior, *The Quarterly Journal of Economics*, 126 (1), 103-143.

### Bright Future for Public School Teachers?

According to the College Board's "Hottest Careers for College Graduates" (using U.S Bureau of Labor Statistics data) the most job openings for those with a graduate degree in 2018 will be as post secondary teachers ( a projected 553,000 job openings), higher than for physicians and surgeons (261,000), clergy (218,000),

pharmacists (106,000) and physical therapists (79,000). Elementary school teaching (with the exception of special education) will offer the most job openings for those holding a bachelor's degree (597,000) followed closely by secondary school teaching (412,000).

Encouraging words to be sure but right now the search for jobs seems anything but easy. Budgets are being cut, in some cases, severely in local school districts. A few months ago ABC News ran a story about how would-be teachers at a job fair in Columbia, Missouri, after waiting in long lines to speak to school district representatives, were decidedly pessimistic about landing a job. The Texas Legislature has approved a bill that lets school districts slash teacher pay and implement up to six furlough days beginning in 2012. The measure is waiting for Gov. Rick Perry's signature. Long term the future may be bright for those seeking jobs as teachers; short term the picture that is emerging is hardly rosy.

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Source: [http://www.collegeboard.com/student/csearch/majors\\_careers/236.html](http://www.collegeboard.com/student/csearch/majors_careers/236.html)

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## Short Shots

### Obesity Linked to Cognitive Problems

We don't need to be reminded that obesity isn't good for us, but now researchers have found that it doesn't simply pose a physical threat, but a cognitive threat as well. According to recent research conducted at Kent State University the obese (not the merely overweight) tend to have diminished memory and cognitive functioning, some of which can be reversed by losing weight. A suspected mechanism is the damage brought about by obesity to the wiring that connects the brain's information processing regions. Studies have shown that subjects with diseases linked to obesity (cardiovascular disease, hypertension, type 2 diabetes) don't score as well on cognitive tests as lighter individuals do. John Gunstad and his colleagues wanted to separate the effects of disease from obesity. They administered a series of cognitive tests to 150 obese individuals who weighed on average slightly less than 300 pounds. Their scores were compared to healthy individuals included in the Brain Resources Database. Scores for one quarter of the

obese group fell within the impaired range. Subjects were tested again in 12 weeks after bariatric surgery (most had shed 50 pounds); They performed "within the average or greater-than-average- range for all cognitive tests." Subjects who didn't have surgery or lose weight performed worse on the second test.

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Article at: Gunstad, J. et al. (2010) Improved memory function 12 weeks after bariatric surgery. *Surgery for Obesity and Related Diseases*. October, 2010 (online)

### Women Get Up Sooner Than Men After a Fall in Soccer, Study Finds

Women's World Cup has focused our attention once again, on the action on the pitch. A study out of Technische Universitaet Muenchen 's Chair of Training Science and Sports Informatics suggests what some of us have long suspected: men players spend a lot more time not playing the game than women by faking injuries or delaying in other ways. Men players, for example, spend on average 38 percent of the total game not chasing the ball. In

some games they found that interruptions in play consumed as much as 53% of the game time. Men take up to 10 seconds longer to make a substitution; when injured they stay on the ground an average of 30 seconds longer. Men spend twice as much time (one minute) cheering a goal than do women. Interruptions are more frequent in women's games but each interruption takes less time. The researchers suggest that one reason that men spend more time "putting on a show, play acting and protesting" is that their games are better attended and receive greater media coverage. As any diehard soccer fan suspects, the time taken to "recover" from "an injury" is used strategically—male players take more time when their team is ahead, something not observed in the women's game.

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Source: *ScienceDaily*, June 29, 2011 on line at: <http://www.sciencedaily.com/releases/2011/06/110629132548.htm>

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## Short Shots

### How Competent Do Teachers Think They Are?

A study from Taiwan sheds interesting light on college teachers' perceptions of their teaching efficacy. Investigators distributed a questionnaire measuring six dimensions of teaching efficacy to faculty members at 17 universities in Taiwan, yielding 513 complete sets of responses. "Faculty members felt efficacious, from the greatest to the least, in the following dimensions: course design, class management, interpersonal relation, learning assessment, technology usage, and instructional strategy." Interestingly, faculty members in education reported a higher level of efficacy than faculty members in other disciplines, yet no differences in perceived efficacy were found between faculty members with teaching training and those without training experience. Females score higher than males in class management and learning assessment. Not surprisingly, faculty members teaching courses completely matching their specialties feel more confident in their teaching than those teaching partially-matched courses.

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Source: Te-Sheng Chang, et al. (2011) University faculty members perceptions of their teaching efficacy. *Innovations in Education and Teaching International.*, 48 (1), 49-60.

### Delusional About Our Weight

The epidemic of obesity in America hasn't been accompanied by a commensurate concern among those afflicted, largely because we tend to imagine ourselves as smaller than we are. A survey from The International Food Information Council Foundation shows that only 8 percent of Americans consider themselves obese even though 34 percent actually are. This "normalization" of larger body sizes hasn't led to substantial decreases in the number of Americans (69 percent) who claim they are trying to lose or maintain their weight. About 56 percent of Americans report weight loss as a top driver for improving the healthfulness of their diet, and 20 percent report improving their diet to maintain weight. Losing or maintaining weight remains the top motivator (25 percent) for Americans who are physically active. Improvement in physical appearance (51

percent) and increased self-esteem (43 percent) and energy (43 percent), followed by improvement in health /overall well-being (41 percent), are top motivators for those who are trying to lose or maintain weight.

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Source: International Food Information Council Foundation's "Food & Health Survey"—Webcast for Health Professionals, June 29, 2011

[http://www.foodinsight.org/Resources/Detail.aspx?topic=2011\\_Food\\_Health\\_Survey\\_Consumer\\_Attitudes\\_Toward\\_Food\\_Safety\\_Nutrition\\_Health](http://www.foodinsight.org/Resources/Detail.aspx?topic=2011_Food_Health_Survey_Consumer_Attitudes_Toward_Food_Safety_Nutrition_Health)

## CONFERENCES AND JOURNALS

**The 2012 International Convention on Science, Education and Medicine in Sport (ICSEMIS 2012)****July 19-24th 2012,  
SECC Glasgow**

ABSTRACT/PAPER SUBMISSION OPENS 1ST JULY, 2012 Full details of the on-line submission process including details of the Young Investigator Award (YIA) can be found at [www.icsemis2012.com](http://www.icsemis2012.com) Abstract submission opens: 1st July, 2012 and closes November 1, 2011. Notification to authors on or before 31st January, 2012. Closing deadline for registration of presenting authors (for publication of abstract): 1st April, 2012. Submit abstracts on-line only. Registration opens October 2011.

**New e-Journal Centers on Performance Enhancement**

A new journal, *Performance Enhancement and Health*, is soliciting manuscripts at <http://ees.elsevier.com/peh/> The aim of the journal is to critically explore the health implications of pharmacological, genetic, psychological and other technological enhancements of the human being. Performance enhancement may be linked to productivity, identity, social capital or pleasure, while health is envisaged broadly as absence of disease, optimal functioning, and (personal or community) well-being. More information about the journal, is available at the above website or by contacting the Editor in Chief, Jason Mazanov, PhD at UNSW Canberra, Australia [j.mazanov@adfa.edu.au](mailto:j.mazanov@adfa.edu.au) Ph: +61 2 6268 8071

**New AKA Officers Announced**

We are pleased to announce the 2012 AKA Officers. They will assume office on January 1, 2012.

Please offer them your congratulations!

**President** - Wojtek Chodzko-Zajko, University of Illinois

**Vice President** - Philip Martin, Iowa State University

**Secretary/Treasurer** - Penny McCullagh, CSU-East Bay



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### Guskiewicz at the “Head” of His Class

children and adolescents 6 to 17 years old for football-related injuries (incurred in both sandlot and organized games) between 1990 to 2007. The number of injuries reported annually increased by 26.5%, over the 18-year study period. Injuries to joints, limbs and back can be seriously disabling, but especially troubling is the relatively large number of concussion injuries treated each year. Dawn Comstock of the Department of Pediatrics at Ohio State University points out that each year youth football players sustain about 140,000 concussions. In an estimated 15.8% of these cases players lost consciousness and returned to play the same day.

Heart-wrenching stories of young athletes paralyzed or killed in collisions on the football field have put faces on what is becoming a serious epidemiological problem. Between 1982 and 2010, according to the National Center for Catastrophic Injury (NCCIR), 320 fatalities directly or indirectly resulted from playing football (all levels) in the 18-year period. Roughly 133 instances of brain damage due to impact were recorded during the same period.

According to the NCAA Injury Surveillance Report, the concussion rate for college football players increased 7% annually

between 1988 to 2005 although it has fallen in the most recent years. It remains the second most common injury in fall football and, along with other sports, accounts for 7.2% of game injuries. (The precise concussion rate for football is not included in the NCAA's Injury Surveillance Report). A recent report by the National League Football Players Association claims that NFL players suffered over 16,000 injuries between 2004 and 2009. Sixty-three percent of NFL players were injured in the 2010 season. Concussion was the most common specific injury reported: according to the report the percentage of players suffering concussions rose from 2.2% in 2002 to 3.8% in 2009 and to nearly 6% in 2010.

By and large it has been the media rather than the sports establishment that has focused public attention on the problem. Some, like Ben McGrath, whose feature article (“Does Football Have a Future?” January 31, 2011) which appeared in *The New Yorker* earlier this year, ask if the potential damage to the body is worth the risks of playing the game as it is presently structured. Others, like *New York Times* writer Alan Schwartz, have been more mission oriented, writing penetrating accounts of players suffering the long term effects of

head blows, unearthing what often is not complimentary information about the NFL's reluctance to acknowledge the problem, and not hesitating to take on the industry for its foot-dragging when it comes to protecting the brain health of its players. Having access to experts who are able to speak to the scientific underpinnings of the issue have given a credence to reporting that wasn't available in decades past.

Enter Kevin Guskiewicz. As chair of the Department of Exercise and Sport Science at UNC-Chapel Hill, a long time certified athletic trainer and Director of the Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center, Guskiewicz has been at the front lines of those calling not only for more systematic scientific research on brain trauma, but for reform in the way concussions are often diagnosed and treated on the sidelines. His work and commentary have made him a highly sought after expert by national news organizations (CNN, NPR,) and the country's leading newspapers and magazines. His credibility and influence have been helped, not only by his academic credentials and his appointments to the NCAA's Concussion Committee, the NFLPA's Mackey-White Committee, and the NFL's Head, Neck, and Spine Committee,

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## Guskiewicz at the “Head” of His Class

but by his facility to explain the scientific aspects of the problem.

For over six years, Kevin has been trying to piece together the elements of the concussion puzzle by measuring the number, location and precise level of force of blows absorbed by players' heads during actual competition. In order to get a sense of the forces players' heads are absorbing during competition, he and his research team mount accelerometers in players' helmets, a technique that allows them to assess impacts in terms of G-forces. And, the G-forces are substantial. Whereas a roller coaster may exceed 6-G's in free fall, and the liftoff of a Saturn V moon rocket exposes its crew to a maximum of 4-G's, Guskiewicz has found that the average collision on the football field registers a head impact of nearly 23-Gs with the most spectacular collisions yielding G-forces in the 85 to 100-G range. (Purdue researchers have recorded maximum impact forces of up to 289-Gs.) The accelerometers are used both for research and clinical purposes. A telemetry system, called the Head Impact Telemetry System (Riddell, Inc.), sends signals to athletic trainers on the sideline allowing them to determine the location and magnitude of every head impact sustained in a given practice or game.

As Guskiewicz points out, the relationship between impact force and concussion is not nearly as cut and dried as it might seem. Some players seem able to absorb high impacts and not be concussed; at other times what seems like a relatively low grade impact will lead to a concussion. “We are currently not where we'd like to be in understanding what an 80-G impact means relative to a 40-G impact, but it's a matter of first priority to begin collecting data. If we don't start somewhere - like now - we'll never know,” Guskiewicz said.

But to focus exclusively on the damage done from solitary collisions is to miss one of the more important and ominous aspects of the problem. It isn't simply the spectacular hits that interest Guskiewicz; it is the long term damage potentially done by the accumulation of hundreds of relatively low impact blows that can lead to the most insidious effects. He points out, for example, that the average college football player sustains an amazing 950 to 1000 *subconcussive* blows per season. These are blows that in and of themselves may be asymptomatic or perhaps accompanied only by short term discomfort. Consequently players are likely to remain in the game or return to playing without allowing ample

time for recuperation. It is the accumulative effects that worry him. The response to head impacts is a dose response, he says; “After a certain number of hits, the damage starts to show.” This is the magic question – “How many is too many?”

As has been long recognized in “punch drunk” boxers, repeated, long term subconcussive blows can lead to chronic traumatic encephalopathy (CTE), a progressive degenerative disease of the brain brought on by repeated blows to the head. (Several former NFL players have been diagnosed post-mortem with CTE.) Gradually the damage begins to manifest itself in a variety of ways: decreased cognitive capacity, memory loss, confusion, depression, and Alzheimer-like behavior. In fact, as dramatically shown in a recent *National Geographic* story (February 2011) featuring Guskiewicz and his work, microscopic images of stained brain tissue of those suffering CTE are shown to be remarkably similar in appearance to stained slices of Alzheimer brain tissue. In his capacity as Director of the Center for the Study of Retired Athletes, Guskiewicz has seen first hand the behavioral effects of these changes. He has discovered, for example, that players beyond the age of 50 and who suffered

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three or more concussions while playing are five times more likely to be diagnosed with mild cognitive impairment than players who haven't been concussed. Compared with retired players with no history of concussion, retired players reporting three or more previous concussions are three times more likely to be diagnosed with depression. In some celebrated cases, Guskiewicz points out NFL players have retired to a life of depression, aberrant behavior and suicide. So, research aimed at earlier detection and interventions for these late-life consequences is the next step.

Given such enormous stakes Guskiewicz's work and that of his colleagues takes on both an urgency as well as a missionary flavor, tireless efforts to prevent unnecessary harm to those who love to play the game. Much remains to be done in terms of educating and convincing the athletic community, not only at the levels of the NFL or NCAA but in youth sports as well. In the end, our faith in science will probably win out and athletes who retire from the game unscathed will have Guskiewicz and his colleagues to thank.

## A Conversation with Kevin Guskiewicz



Kevin Guskiewicz

**KT: What initially led to your interest in the concussion problem in football?**

**K.G.:** To be honest with you – it was that (Dave) Perrin guy that you and I both know and love. I certainly gained some interest in concussion during my 2-year GA-ship with the Steelers while I was working on my Masters degree at Pitt. During that experience, I was surprised at the lack of a systematic assessment approach to concussion management in the league at that time; although I will say the Steelers were probably doing just as good a job as anyone at that time (1990-92). After my second year at UVA, Dave and I were discussing potential dissertation topics. Much of my research at that time was focused on balance and posturography. Dave returned from a concussion summit in Dallas (probably the first concussion summit ever) and mentioned that there

was going to be a lot of attention devoted to validating more objective concussion assessment tools over the next few years and he encouraged me to think about how I might develop a balance test for concussion. This was a natural extension of the work I already had been doing, and I viewed it as a way in which my research could have some real application. I never imagined that it would be my ticket to perhaps the hottest research topic in sports medicine for the next two decades, but it was. I can thank my mentor – Dave Perrin for guiding me into an area that has allowed us both to make several significant contributions. I also credit my great colleagues at UNC, including many graduate students along the way, with helping us to carry out this important work.

**KT: What do you see as the possible practical and scientific payoffs of continuing to employ helmet accelerometers? Are other avenues of research being explored?**

**K.G.:** Currently the helmet accelerometers are primarily considered a “research tool” but in time, I believe they will play more of a role in helping athletes learn how to

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## Guskiewicz at the “Head” of His Class

better protect their heads. Despite all the research being done on concussion, we may never know the threshold for concussive injury...but we may learn the relative risk for sustaining subsequent concussions after an initial concussion at certain tolerance levels. More importantly the system may have a role in injury prevention. Our current work is using the system to modify the behavior of athletes who put up high values along the top (or crown) of the helmet, so that they no longer load the head in a dangerous manner.

**KT: You use postural testing to evaluate players who have been concussed. What is the relationship between balance and concussion?**

**K.G.:** There are typically balance deficits for 3-7 days post-injury in athletes with concussion. After identifying these deficits on sophisticated forceplate systems for a number of years, my graduate students and I validated a more simple clinical balance test called the Balance Error Scoring System (BESS). This test has also been validated and shown to be sensitive to concussion, and is much more practical for athletic trainers and team physicians

with limited resources. In a few days, I will be speaking at a Department of Defense workshop on “Biological Assessment of Brain Dysfunction” in Washington, DC, where I will discuss the importance of balance testing following blast injury and TBI in our U.S. servicemen and servicewomen.

**KT: You often mention how important it is for a player to “keep his head up” when anticipating a collision. Why is this important?**

**K.G.:** The impacts to the crown of the head are the ones most likely to cause cervical spine injury, and also tend to result in the highest accelerations for causing concussion.

**KT: Obviously the first line of defense is to insure that a player’s helmet offers reasonable protection against concussion. There has been criticism of the group that certifies the safety of helmets (the National Operating Committee on Standards for Athletic Equipment) because it is funded by the manufacturers. Do coaches now have reliable data on the relative safety of helmets?**

**K.G.:** Helmets are very safe at doing exactly what they are manufactured and tested to do; prevent catastrophic brain injuries such as skull fractures and brain bleeds. There is currently no concussion proof helmet, and in order for helmets to do a better job of preventing concussion, the materials will need to change. In doing so, there is an increased risk that they would then not prevent those more catastrophic injuries. So, we want our cake and eat it too! Personally, I think we need to focus our attention to behavior modification and rules changes.

**KT: The media has called attention to the hesitancy of the NFL and other parts of the football industry to recognize the seriousness of the concussion problem. In 2005, for example, an NFL committee concluded that a player suffering a concussion could return to the game without threat of serious injury. It appears that the league and owners have finally gotten the message. What about colleges and universities? Do you get the sense that they have taken your message seriously?**

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**K.G.:** I think that everyone is now taking this injury more seriously. Once the NFL admitted it needed to pay more attention to better prevention and management of these injuries, a trickle-down effect set in. The NCAA and NFSHSAA now have much better concussion practice guidelines for their athletes than they did just 2-3 years ago.

**KT:** *In 2004, NATA released a position statement on the diagnosis and treatment of brain trauma in football. Do you see a more vigorous role that NATA might play in the prevention of brain trauma in football players going forward?*

**K.G.:** I think the NATA has been one of the leaders in this arena, and will continue to emphasize the importance of advancing our understanding of this injury. That summit in 1993 was sponsored by the NATA. The association plans to revisit and update the 2004 position statement beginning this June at our annual meeting. A new position statement will likely be released in the next 12-18 months.

—SJH

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**Tai Chi Chih Successful in Battling...**

everything they can before seeing a physician. Integrated medicine leads to overall health benefits for older people suffering from many different things: arthritis, cancer, Alzheimers.”

Lavretsky acknowledges that other factors might have been at work as well: “These people all suffer from isolation and lack of exercise,” Lavretsky said. “For most of them, visiting the doctor’s office was the only time they got out at all. They’re isolated and lonely, causing much of their depression.”

She has recently applied for a bigger grant to conduct a study on 300 adults. She seeks to discover additional ways to improve quality of life as we age—the cognitive aspects as well as the physical—utilizing exercise as a way to decrease or eliminate individuals’ need for medicine.

“Integrated medicine,” Lavretsky said, “is the way of the future.”

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### Time to Speak Out on Football Violence

logic, that justifies us, as an academic and professional group, continuing to encourage the playing of a game that produces so many damaged bodies. We speak out regularly on the ills of smoking, and eating fatty foods, and of living a sedentary life, our passion grounded in a common sense commitment to producing a healthy society. How we can not only sit by but endorse the senseless violence that has come to be woven into a game, mostly as a way of magnifying its entertainment value, begs for an explanation.

I played football and I find much of the game electrifying. I'm convinced it could be just as electrifying were it purged of the violence. Yet intimations that modifications are in order can spark retorts that go something like this: "Take the violence out of the game and it is no longer football." Even modest suggestions for changing the rules of the game to protect quarterbacks have brought accusations that reformers are "sissifying the game."

And maybe that's the problem. Could it be that our passion is not so much for the skill and grace and beauty so evident in the game, but for hard hits and devastating collisions. Sport fans, yes, but maybe voyeurs watching young men literally risking their necks as well.

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### Highest Paid Athletes From 180 Countries

in a poorer, less economically advantaged country.

We calculated an index by dividing athletes' salaries by the GDPP of their homeland and an interesting picture emerged. While Rodriguez's salary is 713 times the GDPP of the USA (\$44,872), Pacquiao, who earned the same in 2010, is *18,317 times* the GDPP (\$1747) of his homeland, the Phillipines. Mets player Johan Sontana's salary is roughly the same as Spain's auto driver Alonso, but it is 1,897 times the GDPP per capita of his home land of Venezuela while Alonso's is a "more modest" 709 times the GDPP of Spain. Clearly Sontana's salary sets him much further apart from his fellow Venezuelan's than Alonso's sets him apart from his fellow Spaniards. Mirlan Murzaev's modest \$150,000 salary paid by Israeli soccer club Hapoel indexes to 835 times the GDPP (\$179) of his homeland Kyrgyzstan. Finland's Parkkonen's \$26 million salary is very high in real dollars but it is "only" 589 times the sizable \$44,688 GDPP of his homeland. In fact, based on the index it is a mere pittance compared to the smaller (\$2,730,000) salary West Ham United pays soccer player Herita Ilunga, a native of Democratic Republic of the Congo. His salary is 16,058 times the GDPP (\$170) in his homeland

As to which sports yield the highest paid

athletes the magazine names Kobe Bryant as the highest paid basketball player in the world (\$24,800,000), Cristiano Ronaldo as the highest paid soccer player (\$19,500,000), Rafael Nadal as the highest paid male tennis player (\$10,172,000), and Kim Clijsters, as the highest paid woman tennis player (\$5,035,000), Luke Donald topped the list for men's golf ( \$5,867,000) and Na Yeon Choi headed the list of women golfers (\$1,871,000). Not all sports reap such largesse however. The highest paid sumo wrestler earned a mere \$400,000 and the highest paid racquetball player earned \$300,000. Sharon Pluhowsky, the top earner on the women's pro bowling tour earned only \$40,000. Her male counterpart Walter Ray Williams did a bit better earning \$152,670. (Their indexes— based on the GDPP of the U.S.— are a miniscule .891 and 3.40 respectively.) If you thought athletes competing in oddball sports like competitive dart players would round out the bottom of the list you are dead wrong. Phil Taylor, the UK's number one dart player earned \$1,041,000 in prize money...although it was a "measly" 29 times the GDPP of his native England.

Complete data set at:

<http://sports.espn.go.com/espn/news/story?id=6391145>

<http://sports.espn.go.com/espn/news/story?id=6391391>

—SJH



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## Is It Fall Already?

planned activities for the coming year and engage the faculty in their planning; encourage faculty to attend student events during the coming year.

- **Provide a professional development activity for faculty:** schedule an outside (of the department) expert to lead a discussion on improving teaching and assessment, increasing research funding, or developing service learning activities for your students. The topics can vary each year but even seasoned (i.e., older) faculty will benefit from new ideas on teaching, research, and service.
- **Use the departmental strategic plan to establish priorities for the coming year:** review the strategic plan, update it as appropriate and select the top objectives and strategies to be addressed during the coming year; use the strategic plan throughout the year and update the faculty on progress being made on the top priorities; discuss how to promote faculty and student accomplishments and to advance the status of the department on campus and beyond.
- **Include group activities to have faculty interact with others:** create “mixed” groups of faculty who don’t often work together during the year; have the groups do problem solving tasks and then report back to the large group; keep these tasks focused and get results from the groups quickly (don’t appoint a committee to report later in the semester).
- **Have a social event for the faculty, staff, and graduate students:** these events can vary from catered dinners to informal picnics (the picnics are often more fun and can include entire families); provide coffee and pastries (OK, fruit and yogurt) prior to a morning meeting.
- **Finally, be positive and excited about the coming year:** these are difficult times but regardless of the conditions, our faculty members are obligated to teach our students, do their research and provide service to the university, community and profession; working in an open and positive environment makes these difficult times more bearable.

I realize that some departments may already do most or all of the above or have even other activities to help get the year started. If you’d like to offer other suggestions for making the most of the fall meetings, please let me know. We can create an AKA resource page to distribute these suggestions. I hope everyone has a productive academic year which starts with interesting and informative fall meetings.

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## **Resistance Training Pays Off for Older Adults**

### ***KT: How big of a problem is loss of strength in older adults?***

**Peterson:** As individuals age there is both a decline of strength and a decline of cardio-respiratory function. Both can have a serious impact on the lives of older adults. I believe that declines in strength may pose a significant problem because of the importance strength capacity plays in the lives of this population. Strength, particularly of the lower extremities is foundational to most other forms of physical activity; if you lack a solid foundation it is unlikely that you will be able to engage in activities that build on that foundation. Limits of strength capacity in the lower extremities can also affect balance, gait function and performance of instrumental activities of daily living. Recent research has underscored rather conclusively that improving strength in the lower extremities is a front line of defense in preventing falls in the elderly.

### ***KT: Loss of muscle mass is one of the regrettable realities of aging. How much do we actually lose?***

**Peterson:** Epidemiological studies show that sedentary populations can expect to

lose up to approximately .2 kilograms of muscle tissue a year or more. The reality is that the accompanying loss in strength happens gradually so people often don't notice it and it usually isn't picked up in clinical settings. The result is that one can end up with a 50% strength loss by the 7<sup>th</sup> or 8<sup>th</sup> decade of life.

### ***KT: Obviously maintaining a sedentary lifestyle predisposes you to greater loss of strength.***

**Peterson:** Yes, a sedentary lifestyle can lock people into a vicious cycle. Because they are inactive, they lose greater muscle mass and strength capacity which causes them to be less capable movers, which in turn causes them to be less active. But even in healthy adults the level of physical activity tends to taper off with advances in age.

### ***KT: Do we tend to see greater adaptive response to resistance training in elderly people who have been physically active earlier in life?***

Even though significant adaptation is possible in the "oldest old," it may be expected that the benefits of early intervention will translate to preservation of long-term

health and independence. At present, however, only 27% of the US population is estimated to participate in leisure-time resistance exercise and these rates are substantially less for individuals over the age of 50 years

### ***KT: On the basis of your study can we say the more exercise---the heavier the load, the more repetitions, the more frequent the training sessions--- the better?***

I'm hesitant to go that far because there always is a point of diminishing returns, but the fact that there is a dose-response in this population is undeniable. Incremental increases in intensity and volume relative to an individual's strength capacity can lead to greater strength and lean body mass gains.

**Mark Peterson is a Research Fellow in the Laboratory for Physical Activity and Exercise Intervention in Department of Physical Medicine and Rehabilitation at University of Michigan. His BS is from the Department of Kinesiology at University of Michigan, MS and PhD degrees were from the Department of Exercise and Wellness at Arizona State University.**

—SJH

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### Changing Attitudes and Expanding Lives...

child. Horvat then matches up each child with a student from his class based on their background and interests. For instance, students interested in athletic training might be matched with a child who has cerebral palsy or a good swimmer would be paired with a child who is in the pool a lot.

The clinic has seen a tremendous increase in overall motor functioning with children over the years, especially with the swimming element of the program. However, Horvat says the social interaction aspect is just as critical. "The kids become friends and see other kids with disabilities," according to Horvat they also quickly get attached to their student helpers.

Irene Cordell has been bringing her autistic daughter Jennie to the clinic for 25 years. "It's an amazing program. She loves Mike Horvat better than any of us," Cordell said. She and Jennie, now 31, live in Athens, Georgia during the school year, while the rest of their family lives over two hours away in Dublin, just to be near the University for Jennie's speech classes and the exercise clinic. Cordell feels that Horvat's knack for matching students with the correct child is a major key to the success of the program. "I don't know how he does it. He truly is a magical man." Jennie loves music and

associates people and activities with songs, so Horvat successfully matched Jennie with a music therapy student for a semester. The class is made up of mostly physical education students, but it is open to anyone and often draws students from a wide variety of disciplines that benefit from work with the disabled community. Horvat said, "Most students come in scared to death and anxious about what to do, but that's usually gone within two to three weeks." He believes that the relationships that the students build with the children help them to become comfortable and see them as people and not their disabilities. "If I can change attitudes about people with disabilities, then I've done my job," he said.

The experience of working at the Pediatric Exercise and Motor Development Clinic has done more than change attitudes, it has changed lives. David Lorenzi, Director for the Special Needs Activity Program at Indiana University of Pennsylvania worked with Dr. Horvat as a graduate student. Lorenzi was given a leadership role at the clinic by supervising undergraduate students and assisted with the administrative duties. He admires the high standards set by Dr. Horvat and feels students leave the program with an invaluable experience. "He will go down as



VGA Photographer Andrew Davis Tucker

one of the leaders in the field," Lorenzi said. Lorenzi has ran his own program for disabled adults and children for the last eight years. He moved to Indiana University of

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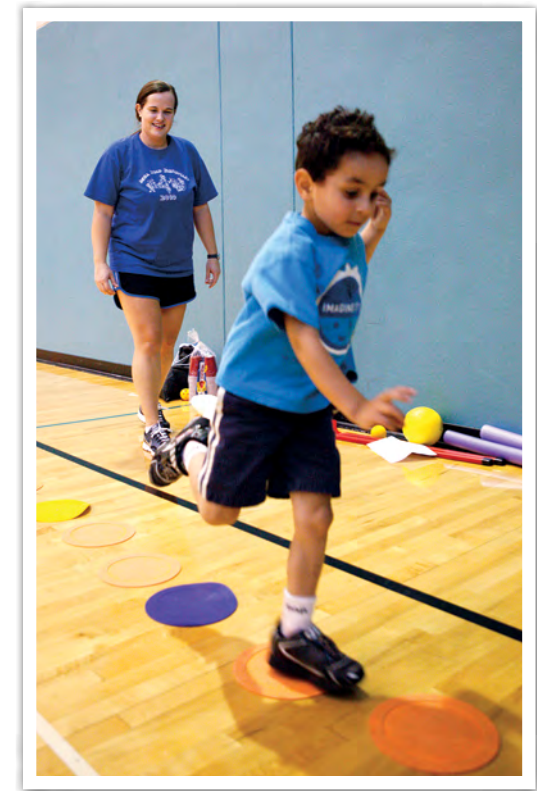
### Changing Attitudes and Expanding Lives...

Pennsylvania because he was specifically looking for an opportunity to offer the hands-on element the SNAP program brings to his students. Students consistently rate the clinic as the most valuable part of the adapted physical education courses.

Karen Smail is also carrying on the legacy of the UGA clinic with the Move, Grove, Get Active program at the College of Charleston. Smail acknowledges that she based her program on her experience as a graduate student with Dr. Horvat. "He gives students the ability to go out immediately after school and make changes," she said. "The experience combines all of their classes into one environment. They're not focusing on grades. This is where you put it all together." Smail's program at the College of Charleston focuses on helping 5-21 year olds diagnosed on the autistic scale. Volunteers work one-on-one with the children on physical and social development, but they can also help with a parent support group and a sibling group. Smail collects data each week on

program participants. They test physical skills, social skills and length of engagement. After just a three year period, they results are showing huge improvements in all areas.

Meanwhile, Dr. Horvat carries on the tradition of the Tuesday night clinic that has become a valuable asset to the University of Georgia and the community it serves. "It's a fairly unique experience. We don't have any other courses that students work with children from the community," said Dr. Kirk Cureton, head of the Kinesiology Department at UGA. "(Horvat) has had a positive impact on his students and the community. That program speaks for itself." Horvat is working on fundraising efforts to endow graduate assistantships and a professor to take over the program after his, as yet unplanned, retirement. When that retirement day does come, he and Jennie Cordell just may "graduate" together and leave a legacy that will continue to inspire and enlighten the next generation.



VGA Photographer Andrew Davis Tucker



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**Virtual Workout Partners Spur Better Results**

“The fact that this effect was found with a virtual partner overcomes some of the practical obstacles of finding an optimally-matched partner to exercise with at a particular location,” Feltz said.

Also, researchers have found live exercise partners are not always the most helpful. “Individuals can become discouraged if they believe they can never keep up with their partner, or on the other hand, become bored if their partner is always slower,” Feltz said. “With a virtual partner, this can be addressed.”

*As part of its Health Games Research, Robert Wood Johnson Foundation shares and supports quality, evidence-based research that explores and documents how digitally-delivered games are improving health and health care. More than \$10 million has been awarded. Founded in 2007, Health Games Research currently funds 21 research studies on entertaining, effective health games and technologies that improve health behaviors and outcomes. For more information, visit [www.health-gamesresearch.org](http://www.health-gamesresearch.org)*

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**Staying in Touch With the World of Practice**

identified a few **Winnable Battles**, targets where they believe significant progress can be made. Nutrition, physical activity, and obesity are among the recent battles targeted. An overview of the issue is available at: [www.cdc.gov/winnablebattles](http://www.cdc.gov/winnablebattles). You will find a description of the context and background for the area, as well as an account of some of the policy and programmatic interventions that are currently underway. Excellent Power-Point slides are available that can be tailored for your use in lectures or community presentations. Take a look. I think you'll like what is offered

The sharing of knowledge, skills, and resources from a range of professionals with different experiences allows for a more comprehensive conceptualization of problems associated with physical inactivity. As kinesiologists we must move beyond a world where those who conduct research are separated from practitioners and policy makers. It is important to understand the concerns and obstacles our practitioners face, as well as the conditions that might lead to policies that facilitate physical activity promotion activities. If you have thoughts regarding how we can expand our advocacy role in support of the national plan please contact me at [amlee@lsu.edu](mailto:amlee@lsu.edu)

## — Welcome — New AKA Members

University of Tennessee  
Department of Kinesiology,  
Recreation and Sport Studies

North Carolina State University  
Physical Education Department

**For a complete list of AKA members,  
go to [www.americankinesiology.org](http://www.americankinesiology.org).**

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