

Table of Contents

Adaptability of Motor System on Display	1
Expression of Triumph May Serve Evolutionary Function	2

President's Perspective

A Role for Kinesiology Graduates in the Public Health Delivery System	3
Authorship Policies Still Muddled in Biomedical Journals	4
Sportscience Website Lists Impact Factors for Kinesiology Journals	5
Stand Up for Your Health.	6
New Board Members Appointed.	7
Second Annual AKA Student YouTube Video Competition Open for Entries	7
AKA Scholar Award Opportunities.	8
Free AKA Webinar	8
Physical Activity Not an Effective Treatment for Depression	9

Executive Director's Corner

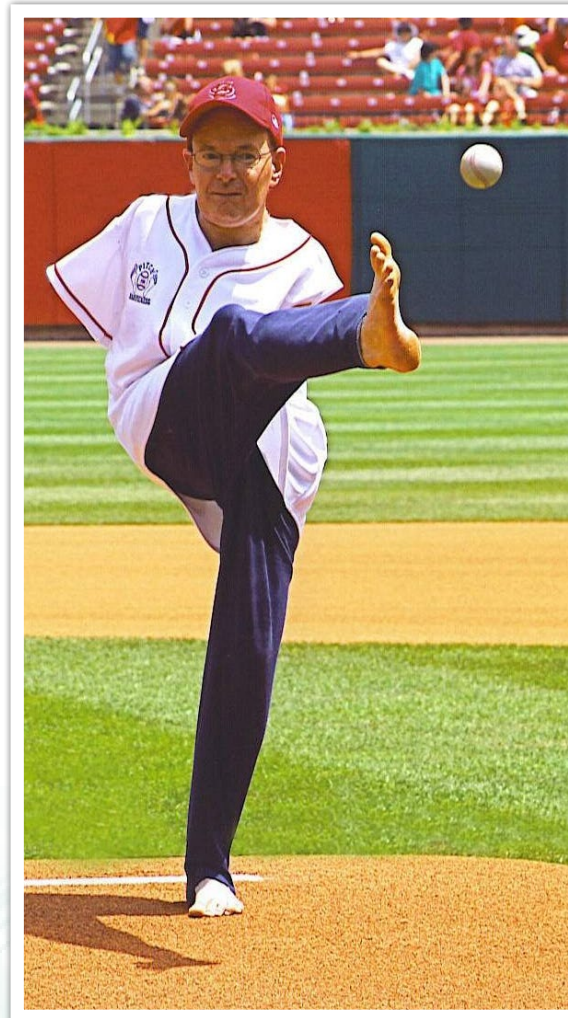
Thinking Forward about Diversity in Kinesiology	10
The Ongoing Threat of Television	11
Worth a Read.	12
Physical Activity Special Primary Interest Group Becomes Permanent Section in American Public Health Association	12

Insight

Detecting Talent in Sport: The Questionable Use of Psychological Inventories	13
Can You Compete Under Pressure? BBC Lab UK Used in Kinesiology Research	14

Editor's Two Cents' Worth

Stadiums Stuffed with Stuffed Zealots a Mockery of Kinesiology's Objectives.	15
Short Shots.	16
Conferences	20



Credit: Herron Photography

Adaptability of Motor System on Display

Tom Willis is testimony to the way our motor systems can adapt to what seems like insurmountable handicaps. He is also testimony to one man's resolute spirit to overcome what many would view as a crushing disadvantage. Willis wouldn't share that view. Born without arms, Willis has learned to do with his feet much of what most of us do with our arms, including driving a car. His "No Hands, No Arms, No Problem" motivational speeches have inspired throngs of school children. Now he is on a mission to throw out the ceremonial first pitches at all 30 major league stadiums. So far he has thrown first pitches at 18 stadiums, 9 of them strikes. His latest pitch was thrown at Wrigley field in Chicago in mid-September. It is a feat that required the same grit and determination that Willis has shown to master skills of daily living. When he was first asked by the San Diego Padres to throw out the first

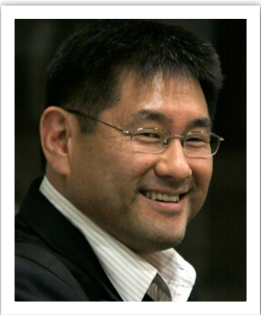
Continue on Page 22

Expression of Triumph May Serve Evolutionary Function

Siv Schwink, KT Staff Writer

Raising the arms in victory with fists clenched and with a grimace on the face—when athletes display intensity of emotion immediately after a meaningful victory, they may be enacting a ritual show of dominance and intimidation that is universally hardwired in humankind by evolution.

In research published in January 2012, David Matsumoto, professor of psychology at San Francisco State University, and his colleague Hyisung Hwang suggest that this nonverbal expression of triumph represents a nonbasic emotion that is distinct from pride, and we may be genetically programmed to signal triumph in the first moments after a win.



David Matsumoto
San Francisco State
University

The researchers—both experts in the psychology of human facial and behavioral expression—point out that a universal predisposition to signal our triumphs would provide an evolutionary advantage. The

triumph signal alerts others to the victory, demonstrates aggression while making the subject appear as large and menacing as possible, and enhances the subject's feelings of power, which in turn may help prepare for future competitions. The effect of the triumph signal is enhanced status and dominance within a social hierarchy, which gives a reproductive advantage, and so contributes to survival.

The researchers hypothesize that these functions of the triumph expression are different from those of pride. Pride is not immediate: It involves self-assessment and so requires time to reflect on an achievement. And whereas both triumph and pride may serve to enhance social status within a hierarchy, the expression of triumph is distinct in that it is aggressive, agonistic, and taunting. It increases the value of a win by drawing attention to it, whereas pride is nonaggressive and simply signals satisfaction with the self.

Prior research by Matsumoto and his colleagues had treated triumph as a subset of pride, whereas this study aimed to isolate whether or not individuals from two disparate cultures would consistently recognize

spontaneous expressions of triumph as distinct from expressions of pride.

The study was performed in the United States and then replicated in South Korea. Subjects were asked to identify the emotions depicted in photographs of 2004 Olympic judo competitors who had won gold or bronze medals. A set list of response options was provided: anger, contempt, disgust, fear, joy, sadness, surprise, neutral, and other. Several “distracter” photos were included in the group, depicting emotions that were among those provided.

In one group, pride was given as a response option, but not triumph. In this group, the photos depicting the hypothesized expression of triumph were classified sometimes as pride and sometimes as joy.

In a second group, triumph was given as a response option, but not pride. Other response options were consistent with those in group 1. In this group, the photos depicting the hypothesized expression of triumph were consistently classified as triumph.

In a third group, both options—pride and triumph—were included along with the set of basic emotions. In this group, some

Continue on Page 21

AKA PRESIDENT'S COLUMN

A Role for Kinesiology Graduates in the Public Health Delivery System

Wojtek J. Chodzko-Zajko, PhD, President, American Kinesiology Association



Wojtek Chodzko-Zajko

Charles-Edward Winslow, one of the founding fathers of public health in the United States, defined public health as the discipline charged with preventing disease, prolonging life, and promoting health

and well-being through the organized efforts and informed choices of society, organizations, communities, and individuals. Until fairly recently, public health was concerned primarily with issues related to sanitation, vaccination, and the control of infectious diseases. However, in recent years there has been an increased awareness of a new role for public health in the prevention and management of the chronic diseases and conditions that emerge as a result of unhealthy lifestyle behaviors. Increasingly, public health departments are charged with implementing evidence-based physical activity and healthy eating programs in an attempt to stem the widespread epidemic of obesity and inactivity-related disorders.

Recognizing the need to align with this

important new focus in public health, many kinesiology programs in North American universities and beyond have begun to establish master of public health (MPH) programs, either on their own or in partnership with other academic units across the university. At the University of Illinois in the department of kinesiology and community health, we recently graduated our first class of MPH students. We developed a new MPH program because we believe that if our graduates are to be effective participants in the battle against lifestyle-related diseases, they will require a broad, multifocused education that includes comprehensive education in the core elements of public health.

The World Health Organization has proposed a model of public health practice that is built around three pillars of public health that are highly interrelated and mutually dependent:

1. Building awareness of the importance of prevention and treatment of lifestyle-related disorders
2. Improving assessment of individual, environmental, and societal risk factors that increase the likelihood of

developing chronic diseases and conditions

3. Facilitating the design and implementation of culturally appropriate, evidence-based interventions that will prevent, manage, or treat lifestyle-related conditions

I believe that there is an important role for kinesiology graduates to play within each of the three pillars of public health. They can help to build awareness of the importance of active and healthy lifestyles; they can assist in identifying risk factors and determinants of inactivity-related conditions; and they can recommend and help to implement culturally appropriate, evidence-based interventions for the prevention, management, and treatment of lifestyle-related disorders.

A logical consequence of the WHO model of public health has been the development and implementation of a series of broad-based public health initiatives. Physical activity is embedded as an integral component of a much broader health promotion and disease prevention strategy. For example, in 2007, the WHO launched

Continue on Page 24

Authorship Policies Still Muddled in Biomedical Journals

A recent review of stated authorship policies of 135 peer-reviewed biomedical journals from 35 publishers, including the 15 top rated journals, has uncovered what the authors termed “worrisome” findings. Determining who should rightfully claim authorship on scientific papers has long been problematic for researchers and reviewers. The investigators point out that adding the names of ghost or “honorary (gift) authors” to papers “dilutes the merits of other authors and may lead to inappropriate academic advancement and have a corrupting influence on research.” Departmental policies may range from including everyone working in a lab, however loosely connected to the publication, to restricting authorship only to those who worked directly in producing the research that led to the publication. This study based its review on the three primary criteria set out by the International Committee of Medical Journal Editors (ICMJE) in its Uniform Requirements for Manuscripts (URM) document (available at www.icmje.org/urm_full.pdf). According to these criteria authorship credit should be based on: 1) substantial contributions to con-

ception and design, acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published. The criteria further specify that *authorship credit should meet conditions 1, 2, and 3*. The criteria further state that “acquisition of funding, collection of data, or general supervision of the research group alone, does not justify authorship...”

The authors coded stated authorship criteria for each journal (if any were given) into categories according to compliance with the 3 ICMJE criteria. They found that the 3 criteria were required by less than 52 percent of the content journals and by only 22 percent of the review journals. Only 68 percent of journals endorsed by the ICMJE required all criteria; 18 percent required none. Thirty percent of journals from Elsevier, the world’s largest biomedical publisher, required all criteria and 50 percent required none. Only 21 percent of journals, mostly from internal and general medicine, included contributor statements in published articles and no review journal included such statements. The authors warn

that journals which do not post authorship statements nor conform to ICMJE policies “are serving science badly because, without their support, the numbers of unmerited authors are unlikely to diminish significantly.”

A follow-up by KT looked at the authorship policies at the top ten kinesiology journals (impact factors in parentheses) in relation to the three ICMJE criteria. [See recent ranking of selected journals by impact factors on [page 5](#)]. Number one-ranked journal *Sports Medicine* (5.5) (a review journal) endorses the ICMJE authorship policy, while second-ranked *Exercise and Sport Science Reviews* (4.5) does not list authorship criteria in its submission guidelines. Third-ranked *Medicine & Science in Sports & Exercise* (4.4) requires authors to adhere to at least two of six ICMJE criteria, but these do not include the ICMJE requirement that all authors must grant approval of the article. *The British Journal of Sports Medicine* (4.1) ranked number four, requires that all authors meet the ICMJE criteria. Adherence to the ICMJE criteria is not listed as a requirement for submissions to journals ranked number five through nine (*American Journal of Sports Medicine*

Continue on Page 24

Sportscience Website Lists Impact Factors for Kinesiology Journals

Impact factors—generally, the average number of citations per article published in the journal over the past two years—continues to be used as a barometer for the academic quality of the journal and, hence, the importance of the research studies it publishes. Will Hopkins, professor of exercise science in the School of Sport and Recreation and the Sport Performance Research Institute at AUT University in Auckland, New Zealand, has recently published the impact factors for journals in kinesiology on the Sportscience website at <http://sportsci.org/index.html>. *Impact factors in the table represent citations per article per year for sport and exercise science and medicine journals based on papers published in 2009 and 2010 that were cited in 2011.* The following table is a sampling from the Sportscience list. A complete listing of impact factors for journals can be found at www.sportsci.org/2012/wghif.pdf.

<i>Adapted Physical Education Quarterly</i>	1.5
<i>Clinical Biomechanics</i>	2.1
<i>European Journal of Applied Physiology</i>	2.2
<i>Journal of Applied Biomechanics</i>	<1.0
<i>Journal of Applied Sport Psychology</i>	1.6
<i>Journal of Athletic Training</i>	1.8
<i>Journal of Motor Behavior</i>	1.6
<i>Journal of Philosophy of Sport</i>	<1.0
<i>Journal of Sports Medicine and Physical Fitness</i>	<1.0
<i>Journal of Strength and Conditioning Research</i>	1.9
<i>Journal of Teaching Physical Education</i>	1.0
<i>Motor Control</i>	1.5
<i>Pediatric Exercise Science</i>	1.7
<i>Perceptual and Motor Skills</i>	<1.0
<i>Psychology of Sport and Exercise</i>	1.9
<i>Research Quarterly for Exercise and Sport</i>	1.5
<i>Strength and Conditioning Journal</i>	1.0

Stand Up for Your Health

Amy Rose, KT Staff Writer

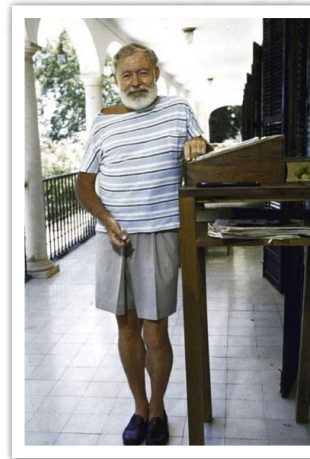
Increasingly sedentary lifestyles are taking a toll on our health. People worldwide are spending more time sitting. Sitting at desks, driving in cars, relaxing at home—it all adds up to hours and hours spent in an inactive state. Inactivity researcher March Hamilton, a professor at the Pennington Biomedical Research Center in Louisiana, told the *Chicago Tribune*, “In our society, many people are literally living with a stalled metabolic rate similar to an anesthetized patient for over 80% of their day. No wonder we have an unsustainable health crisis.”

A 2010 study conducted by the American Cancer Society reported that women who sat more than 6 hours a day were 37% more likely to die prematurely than women who sat for less than 3 hours; the risk of early death for men increased by 18%. Long periods of sitting have also been linked to increased risk of type 2 diabetes, breast and colon cancer, and overall shortened life expectancy. Prolonged sitting has also been found to have a negative effect on metabolism. Most important, it decreases the production of lipoprotein lipase, a molecule that plays a key role in how a body processes fat. It is pro-

duced by many tissues but most notably by the contraction of muscles. Low levels of lipase keeps the body from properly metabolizing sugar and fat, which leads to weight gain and the development of diabetes and coronary heart disease. This is just one of the substances that are produced by active muscles, which helps the body to achieve a healthy metabolic state.

Unfortunately, an hour or so of traditional exercise does not seem to totally wipe out the ill effects of sitting the rest of the day. While short periods of strenuous exercise are good for the body, experts are saying that more active periods of standing or slow walking are needed to really get the body working at an optimal level.

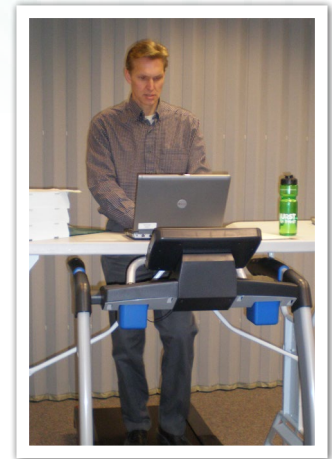
To combat sedentary habits, more and



Ernest Hemingway used a standing desk to write.

more office workers are turning to the use of standing desks during the day. Standing desks are not a new idea; they were used by Thomas Jefferson, Ernest Hemingway, Winston Churchill, Virginia Woolf, and Donald Rums-

feld. However, they have started showing up in more modern offices in recent years. Duck-Chul Lee, an assistant professor of kinesiology at Iowa State University, has been using a makeshift stand-up desk for about 3 years. He created his own stand-up desk out of paper boxes after having neck problems, which were exacerbated by sitting for long periods. He works at his standing desk for a couple of hours a day while doing simple tasks. “I feel good,” said Lee. “I feel less stressed and it is more fun



Greg Welk, Iowa State University, walks at a treadmill desk an hour or more each day.

Continue on Page 25

New Board Members Appointed

The executive committee of AKA has announced the appointment of one continuing and four new members to the AKA Board of Directors for a three-year term. Congratulations to all!

Tom Templin, professor, department of health and kinesiology, Purdue University. Tom is a current member of the board and as chair of the communication committee has initiated several excellent AKA projects, including a series of webinars.

Following are the new members:

Jayne Jenkins is a professor in the division of kinesiology and health at the University of Wyoming.

Steve Estes is the chair of the department of health and human performance at Middle Tennessee University.

Richard van Emmerik is a professor in the department of kinesiology at the University of Massachusetts.

Melanie Hart is associate dean of the college of arts and sciences and department of health, exercise, and sport sciences at Texas Tech University.

Second Annual AKA Student YouTube Video Competition Open for Entries

The American Kinesiology Association (AKA), in support of its mission to advocate for the discipline of kinesiology, is hosting a Student YouTube Video Competition. The purpose of the competition is to develop short (3-minute) videos that promote the field of kinesiology.

Some of the topics may include the following:

- Why I am a kinesiology major?
- Laboratory experiences in kinesiology

- The kinesiology curriculum
- Kinesiology's impact on society
- Kinesiology internships, service learning, and experimental learning activities

Students may identify other creative topics that will promote the field of kinesiology. The competition is open to both undergraduate and graduate students. AKA will provide cash awards to departments for award-winning videos. First place

is \$500, second place is \$300, and third place is \$100. Each AKA member department may submit a maximum of two (2) videos. Departments may conduct their own competition to select the best videos to submit to AKA.

Participation in the AKA Student YouTube Video Competition is limited to AKA member departments.

AKA members must be logged in to [view the competition instructions and submission forms](#).

AKA Scholar Award Opportunities

The annual AKA Scholar Awards honor a select number of students from member departments, recommended by department faculty, whose academic and leadership records are distinctive. The awards recognize and promote academic excellence, further the professional competence and dedication of academically accomplished students, and promote kinesiology and its related fields.

Awards are offered in three categories:

1. Undergraduate Scholar Award
2. Graduate Scholar Award
3. Graduate Writing Award

Each student nominated by a college or university will be the designated recipient of the Undergraduate Scholar, Graduate Scholar, or Graduate Writing Award from their institution, pending final approval by the AKA Scholar Award committee. More information about the awards, including selection criteria, can be found on the AKA website at www.americankinesiology.org or by contacting the AKA Awards committee chairperson, Dr. Susan Petersen, at speterse@brockport.edu.

Recipients will receive certificates, and their photos will be published on the AKA website. Announcements of awards will be

sent to chairs and deans of the students' institutions soon after a decision is made. The awards committee will begin the review process for the 2013 scholar awards on January 1, 2013, and will continue until the May 1, 2013, deadline.

These awards provide an excellent way to showcase the academic talents of undergraduate and graduate students in kinesiology, and many member departments have taken advantage of this opportunity. If you have not already done so, please consider nominating your students for this year's awards.

Free AKA Webinar

Building the Kinesiology Brand: It's time for your campus and community to know what you do

Presenter: Jeff Lynn, Ph.D.

Date: Wednesday, November 28, 2012

Time: 12:00 noon Eastern Time

Please pre-register for this event [here](#)

Physical Activity Not an Effective Treatment for Depression?

The media has been all over a recent research report published in the *British Medical Journal* that tested the effect of exercise as a supplementary treatment for depression. In the study, researchers claim that there is no evidence that the physical activity intervention brought about any statistical or clinical improvement in symptoms of depression or reduction in antidepressant use at 4-, 8-, and 12-month follow-up points postrandomization compared to usual depression care alone. The study consisted of 361 participants recruited from 65 practices. Adherence to the intervention (physical activity motivational sessions) was good. Intervention was designed to provide individually tailored support and encouragement to engage in physical activity. In addition to usual care, participants were offered up to 3 face-to-face sessions and 10 telephone calls with a trained physical activity facilitator over 8 months. Facilitators with backgrounds in either psychology or exercise science used a standardized manual that described motivational interviewing techniques to promote participants' use of locally available opportunities for physical activity. The

objective was to encourage participants to use local facilities to engage in moderate or vigorous activity for 150 minutes a week in bouts of at least 10 minutes. If that wasn't acceptable for participants, facilitators encouraged any increase in physical activity, regardless of the intensity. Participants in the intervention group reported slightly more physical activity at the primary follow-up checkpoint (4 months). There was much stronger evidence for this effect when data from all three follow-up periods were considered. However, no differences in antidepressant use or symptoms were observed.

True to form, the media has not paid as much attention to the criticisms that flooded the BMJ website (i.e., "Recent Rapid Responses") shortly after the article was published. Among the criticisms was the fact that the researchers failed to take into account the effects of physical activity on severe cases of depression, use of measurement scales, limitations of self-report measures, lack of objective measures of depression, and the fact that the usual-care group could have availed themselves of exercise if they wanted to. If indeed exercise

does moderate the effects of depression, the question of why remains. Is it the result of dopamine and endorphins? Is it the result of the warming effects of exercise? Or is it simply distraction: The pain of exercise distracts you from the gloom of depression? Perhaps it is best to keep in mind that all of the positive effects of exercise remain regardless of its interaction with depression.

Chalder, M. et al. (June 6, 2012). Facilitated physical activity as a treatment for depressed adults: Randomised controlled trial. *British Medical Journal*. www.bmj.com/content/344/bmj.e2758.

Rapid Responses at www.bmj.com/content/344/bmj.e2758?tab=responses
-SJH

EXECUTIVE DIRECTOR'S CORNER

Thinking Forward about Diversity in Kinesiology

Amelia Lee, Executive Director



Amelia Lee

With the long-recognized benefits of diversity in higher education, most kinesiology-related departments have a renewed interest in establishing practices and programs designed to recruit and retain a diverse group of students and faculty. The concept of diversity is defined in many ways, but the overall goal of a diversity initiative is to provide an environment that is supportive, caring, respectful, and inclusive of students, faculty, and staff from a range of backgrounds. The Society for Human Resource Management (www.shrm.org) offers a broad definition of diversity ranging from race, ethnicity, gender, sexual orientation, age, to religion, disability, ideologies, marital status, economic background, appearance, learning style, physical characteristics, and even weight. Also, in today's world, many colleges and universities seek greater international diversity to develop cross-cultural com-

petence that is consistent with the global marketplace. Reaching out internationally can prepare students for new challenges and opportunities, but at the same time this kind of diversity is complex since it involves language as well as culture. More and more higher education is essentially seeking to provide inclusive communities that practice mutual respect for individuals from a range of backgrounds, including groups that are different from the one to which an individual belongs.

While we all accept a broad definition of diversity, today, more than ever, kinesiology is paying special attention to an initiative that will improve the representation of various racial and ethnic groups. Toward this end, the AKA 2013 Leadership Workshop will focus on some tough issues, and speakers will make a case for creating a climate that welcomes the richness of racially diverse student, faculty, and staff groups. Attendees will take away well-thought-out innovative strategies that will enhance their efforts for success in advancing diversity in kinesiology. Find out more about the workshop by going to the AKA website at www.americankinesiology.org.

Even though we generally accept the notion that students learn better and reason in more complex ways when they are in an environment that values individual differences, our success rate of attracting and retaining a broad range of racially and culturally diverse students and professionals hasn't been sterling, to say the least. The issue is not new and one that we have struggled with for years. To be successful, a diverse campus culture must be initiated, promoted, and accepted by all. Appreciation of diversity needs to be a campus priority; and if it is, then students will value individual differences and learn from each other. A good start is to have an overall strategy for a diversity initiative that is part of the mission statement and is included as an action item on the strategic plan. We all want to be successful in building a community with individuals from different backgrounds, life experiences, beliefs, and viewpoints. Let's work together and hopefully we can plan and design a formula for success.

The Ongoing Threat of Television

Evidence continues to pile up about the threat television represents to public health. Two recent studies underscore the insidious way excessive television watching affects health and well-being. The first, by a research team from the School of Population Health at the University of Queensland and reported in the *British Journal of Sports Medicine*, is the first study to quantify the effects of television watching on life span—in this case, the life span of Australians in 2008. The amount of television watched was estimated to reduce life span at birth among men by 1.8 years and among women by 1.5 years. They report that compared with people who watch no television, those who spend a lifetime average of 6 hours per day watching television can expect to live 4.8 fewer years. On average, each hour of TV watched after the age of 25 reduces viewers' life expectancy by 21.8 minutes. Authors point out that "although the current evidence base does not permit precise estimates, this life table analysis shows that TV viewing is associated with losses of life expectancy that may be comparable in size to those related to physical inactivity and obesity." Thus, TV viewing time may have adverse health consequences "that rival those of lack

of physical activity, obesity and smoking." They point out that while Australian and U.S. guidelines for children's TV watching are in place, a public health case could be made that adults also need to limit the time spent in front of their television sets.

A second study by investigators at the University of Montreal and published in BioMed Central's open-access journal *International Journal of Behavioral Nutrition and Physical Activity* found a significant relationship between television watching in young children and increased waistlines and diminished performance on the standing long jump later in childhood. Parents of 1,314 children included in the Quebec Longitudinal Study of Child Development database reported the hours their children watched TV during the week and on weekends at 2.5 and 4.5 years. Follow-up was at 98 months (second grade) and 121 months (fourth grade). Researchers found that, at 4.5 years of age, the children's waist sizes increased by slightly less than half a millimeter for every extra weekly hour of TV children were watching on top of what they had been watching when they were 2.5. Television watching also predicted larger waistline measurements in grade 4. Although the effect was small, researchers stressed

the cumulative effect, suggesting that by the age of 10 children will have added an extra 7.6 millimeters of waist size. Standing long jump was used as a measure of explosive leg strength (athletic ability). Increases in television exposure between 29 and 53 months were associated with shorter long jump performance in grade 2. Each weekly hour of television watching at 29 months corresponded to a decrease of approximately a third of a centimeter in the distance a child was able to jump. The researchers point out that if performance in the jump predicts athletic skill and involvement in sport later in adolescence, television watching at a very young age may represent a habitual barrier to sport participation. Time for kinesiology organizations to sound off on the issue?

Veerman, J.L., et al. (2012). Television viewing time and reduced life expectancy: A life table analysis. *British Journal of Sports Medicine*, 46; 927-930. 927-930.

Fitzpatrick, C., et al. Early childhood television viewing predicts explosive leg strength and waist circumference by middle childhood. *International Journal of Behavioral Nutrition and Physical Activity*. (July 16, 2012)

-SJH

Worth a Read

Interested in learning how physical education has contributed to addressing public health problems over the past 20 years? Twenty years after their groundbreaking article, “Physical Education’s Role in Public Health,” appeared in *Research Quarterly for Exercise and Sport (RQES)*,

Jim Sallis (department of family and preventive medicine at the University of California at San Diego) and Thom McKenzie review the advances and identify problems associated with improving the relevance of physical education to public health in the June 2012 issue of *RQES*. The article,

written in collaboration with Michael Beets, Aaron Beighle, Heather Erwin, and Sarah Lee, is titled [“Physical Education’s Role in Public Health: Steps Forward and Backward Over 20 Years and HOPE for the Future.”](#)

Physical Activity Special Primary Interest Group Becomes Permanent Section in American Public Health Association

The Physical Activity Special Primary Interest Group became a permanent section in the American Public Health Association in June. With this achievement, physical activity now has a long-term home in the largest public health association in the United States. The new APHA Physical Activity section, says section chair Genevieve Dunton, will link researchers, practitioners, advocates, and partners to facilitate programs, environments, and policies to foster regular physical activity in the population and offset the adverse effects of sedentary living. The Physical Activity section will help the organization incorporate physical activity promotion efforts into the legislative efforts

of APHA at the national level. It is hoped that it also will increase the visibility of physical activity research and practice among the 11,000-plus APHA members who come from all fields of public health.

Dunton says that the official recognition will provide the opportunity to build stronger connections between physical activity and other areas of public health, including environmental health, school health, and health policy. Most important, the organizational change acknowledges the key role that physical activity plays in public health. Commenting on the organizational developments that led to the birth of the physical activity section, Jim Sallis, program director of Active Living

Research, noted that “the evidence was clear then that physical inactivity was a primary driver of many chronic diseases, but the recent *Lancet* series on the physical inactivity pandemic puts an exclamation point on the need for the field of public health to elevate physical activity as a priority worldwide. Thus, the timing is great for this announcement from APHA. Active Living Research has been pleased to support the development of the PA section. Now we encourage everyone in the field to support the PA section and consider joining and getting involved.”

Information is available at www.activelivingresearch.org/blog/2012/08/node/12705.

-SJH

INSIGHT

Detecting Talent in Sport: The Questionable Use of Psychological Inventories

Mark H. Anshel, PhD Professor, Department of Health and Human Performance, Middle Tennessee State University, Murfreesboro, Tennessee



Mark H. Anshel

For many years, sport psychology researchers and practitioners have used psychological inventories to predict young athletes' future success in competitive sport, a process called talent detection (TD) or talent identification (TID). TD programs concern recognizing current sport participants with the potential to become improved, eventually elite-level athletes, while some TD programs attempt to uncover sport potential of athletes who are currently *not* involved in sport. Are these programs effective? While studies in the exercise sciences (e.g., physiology, biomechanics, anthropometry) have indicated some degree of success in predicting future talent, assessments of psychological characteristics have not proven nearly as efficacious. In this brief column I outline the primary arguments against using psychological measures to predict a sport participant's future performance quality.

These are the main objectives of TD programs:

1. Attempting to match individuals to sport activities to which they are best suited based on psychological measures
2. Selecting or eliminating certain athletes for future participation at elite levels of sport and providing those selected competitors with optimal training and coaching conditions
3. Allowing sport organizations, coaches, parents, and the athletes themselves to determine their commitment to the necessary time and financial resources for reaching the challenging goals of being elite-level athletes
2. The pervasive use of cross-sectional rather than longitudinal research designs
3. Not taking into consideration the performers' physical maturation, exposure to high-quality coaching, proper equipment, and opportunities for practice
4. Using inventories that were not psychometrically validated or were validated for a sample with characteristics other than those in the targeted sample
5. Inaccuracies and general limitations for measuring sport personality in general
6. Poor control of selected moderating and mediating psychological variables

Following are just a few issues related to the case against using psychological measures to predict future sport performance:

1. Poor validity of inventories that fail to address athletes' psychological status under actual competitive conditions

The philosophical issues about the use of TD programs include the appropriateness of allocating limited community financial and physical resources toward TD programs that serve relatively few athletes. In addition,

Continue on Page 26

Can You Compete Under Pressure? BBC Lab UK Used in Kinesiology Research

For several years, the BBC Lab UK website (www.bbc.co.uk/labuk) has used the Internet as a data-collecting device to answer compelling scientific questions. Given the enormous outreach of BBC, the site has the capacity to reach very large populations, although data-collection procedures cannot be monitored directly. It is, however, very well suited to collecting data using field-tested instruments that require no direct supervision.

The BBC Lab has allowed hundreds of thousands of people to take part in experiments designed by researchers and scientists at the forefront of their fields. One of its largest successes was the Sex ID Experiment in 2006 in which 250,000 people participated; the results formed the basis of an entire issue of *Archives of Sexual Behavior*.



Andrew Lane

One of the most popular—the largest study of its kind—was the Brain Test Britain experiment, which tested the effectiveness of computer-based brain training on cog-

nitive function. Other tests include the Big Personality Test, the Big Money Test, and the Get Yourself Hired Test.

One of the most recent experiments added to the site is Can You Compete Under Pressure? It was designed by Andrew Lane, professor of sport psychology at the University of Wolverhampton, and Peter Totterdell, professor of psychology at the University of Sheffield (www.bbc.co.uk/compete). Both are members of the Emotion Regulation of Others and Self (EROS) research group (www.erosresearch.org), which is funded by the Economic and Social Research Council (ESRC). The study is expected to draw the largest pool of participants ever in an experiment on psychology of pressure.

The online experiment will measure performance on a task called The Grid, a game that generates a sense of increasing pressure. Lane and Totterdell note that the game is based on a well-known task that's been used in previous research on sport psychology. "The Grid is simple enough for everyone to play online but generates the sense of pressure that we find in competitive sport and other situations. The addition of an opponent, based on real pilot per-

formances, added another competitive element."

At issue in the study is the effectiveness of three types of psychological skills chosen because of their wide use in sport and because they are thought to be effective in most high-pressure situations: visualization, self-talk, and "if-then" planning. The experiment is composed of three experimental groups and one control group. It assesses four versions of each of the three psychological skills, each differing in the focus of a participant's performance during implementation of the technique.

Lane and Totterdell hope that results of the study might help solve another mystery in the psychology of pressure—the connection between emotions and performance. An online questionnaire collects information about participants' backgrounds and the way in which they claim to manage their emotions. And beyond gaining insight into the connections between performance



Peter Totterdell

Continue on Page 23

EDITOR'S TWO CENTS' WORTH

Stadiums Stuffed with Stuffed Zealots a Mockery of Kinesiology's Objectives

Shirl Hoffman, KT Editor



Shirl Hoffman

The past few years have brought to public attention a seemingly unending parade of craftiness, duplicity, and unrivaled chutzpah by football coaches, players, administrators, and trustees. All

of this is intended in one way or another to ensure that their loyal alumni can look forward to a smooth digesting of their Saturday evening dinners, the absorption of nutrients having been facilitated by witnessing their undergraduate representatives beat up on the undergraduates from the state school down the road. The worst fears of the perpetrators is that their wily ways will be made public. That, of course, is exactly what has happened—in bold, 24-point font. Barrels of ink have been spilt by journalists and ethicists heaping scorn on the Penn States, Ohio States, University of North Carolinas, University of Miamis, University of Tennessees, UCLAs, and lesser wannabes struggling, as a former University of Oklahoma president once put

it, to create institutions that their football teams can be proud of. Exactly what scandals are currently flying under the radar is anybody's guess, but it doesn't strain the imagination to believe that across the board, the underbelly of the college athletic culture is in need of a healthy sanitizing.

No need for me to add to the diatribes here; the arguments for injecting a bit of sanity into big-time college sports have been aptly made. But there are, I think, a couple of observations that haven't been given the attention they deserve. First, with a few notable exceptions (see, for example, Guilford College sport management professor Bob Malekoff's article in the September 19 issue of *Inside Higher Education* (www.insidehighered.com/views/2012/09/19/lessons-chancellor-resignation-unc-chapel-hill-sports-kills)), kinesiology have been at best only minor contributors to public debates concerning the dismal state of college sports. This in spite of the fact that the study of sport and the training of personnel for the sporting industry are part of the academic terrain claimed by the field of kinesiology, and the vices are almost always local events, occurring not

in the ranks of professional teams up the road but on our own campuses. Failure of an academic community that professes expertise in sport to mount an organized resistance to the corrupting influences that threaten to destroy all the good that can come from participating in it is difficult to understand and even more difficult to justify. One doesn't have to be a hardened cynic to wonder if too many in our field worry more about getting a good seat for Saturday's game than fulfilling their responsibilities of professional stewardship to the human experience of sport itself.

Kinesiologists also can be challenged for failing to recognize the way promotion of big-time sport on college campuses mocks their ostensible commitment to promoting physical activity for the masses. We pride ourselves on being the discipline that not only studies physical activity and prepares personnel for physical activity careers but whose ranks are filled with people deeply committed to modeling physically active lifestyles and stemming the tide of national lethargy and its disastrous consequences. Kinesiologists, one might presume, will not only encourage students, faculty, and

Continue on Page 27

Short Shots

Midlife Fitness Helps Ward Off Old-Age Problems

Are those who are physically fit in midlife more likely to ward off chronic conditions (CC) in old age than their less fit cohorts? Apparently so, according to recent research from the University of Texas Southwest Medical Center. Using a data stream from the Cooper Institute Longitudinal Study and Medicare claims collected on more than 18,000 healthy participants, 20% of whom were women, researchers tracked medical records for 26 years. They found that higher fitness levels in midlife were strongly associated with lower levels of chronic conditions in later life. However, high fitness levels in midlife appeared to be unrelated to overall survival, suggesting that maintaining fitness in midlife may tend to reduce the number of years spent suffering with chronic disease, even if it doesn't extend your life. The investigators underscored the clinical significance of their findings by noting that "a 1- to 2-MET improvement in fitness resulting in promotion from the first to the second fitness quintile at age 50 years was associated

with a 20% reduction in the incidence of CCs at ages 65 and older."

Willis, B.L. et al (2012). Midlife fitness and the development of chronic conditions in later life. *Archives of Internal Medicine*, 172 (17), 1333-1339.

Obese Children and Adolescents Taste Differently

With more than one-third of U.S. children overweight, efforts to sort out causes are leading researchers to explore multiple possibilities, including insufficient amounts of physical activity. A recent study reported out of a laboratory in Germany and published in the *British Medical Journal* suggests that obese teens and children may have less sensitive taste buds than kids of normal weight do. Participants aged 6 to 18 were asked to identify the tastes presented in strips flavored with sweet, salty, sour, bitter, and umami. Overall the obese kids were less accurate tasters than normally-weight kids, especially with salty, umami, and bitter tastes. The results suggest that differences in taste sensitivity could be causing obese children to reject healthy food and causing them to consume larger quantities of food in order to satisfy taste receptors. A second study using only sweet taste found that both obese

and normal-weight kids ranked levels of sweetness accurately, but obese kids ranked levels of sweetness lower than normal-weight kids. They also found that the taste ratings of normal-weight kids became more accurate with increasing age, but not so among obese kids. Say the authors, "Normally taste differentiation improves with age, but failure of obese children to improve as they get older suggests that the taste system is affected in obese subjects."

Overberg, J. (September 2012). Differences in taste sensitivity between obese and non-obese children and adolescents. *Archives of Disease in Childhood*. <http://adc.bmj.com>.

Physical Activity Found to Weaken Influence of FTO Gene

Researchers at Harvard School of Public Health have discovered a genetic link that appears to determine the way the FTO gene influences physical activity. The FTO gene has long been linked with obesity, including an effect on dietary intake and body mass index (BMI). This study examined interactions between television watching, leisure-time physical activity, and genetic predisposition in relation to body mass index using data on

Continue on Page 17

Short Shots

more than 12,000 men and women. They calculated a genetic risk score based on 32 established BMI-associated variants and observed that genetic associations with BMI strengthened with increased hours of TV watching. In contrast, the genetic association with BMI weakened with increased levels of physical activity. (Interactions of TV watching and BMI were independent of each other.) They conclude, “Sedentary lifestyle indicated by prolonged TV watching may accentuate predisposition to elevated adiposity, whereas greater leisure-time physical activity may attenuate the genetic association.”

Qibin, Qil, et al. (2012) *Circulation*. Television watching, leisure-time physical activity and the genetic predisposition in relation to body mass index in women and men. <http://circ.ahajournals.org>.

New Golf Science Journal Launched

Volume 1, issue 1 of the *International Journal of Golf Science* has been released. The journal, the official organ of the World Scientific Congress of Golf, is intended to advance the scientific knowledge of the game and to stimulate and disseminate

research related to golfers, equipment, technology, golf courses, management of golf courses, and golf analysis. It welcomes research articles on a wide range of topics, including research intended to further the understanding of the sport through theoretical and applied research, review articles, and research notes. Dr. Debbie Crews of Arizona State University, well known for her research on golf, is the editor. For a look at the table of contents for the first issue as well as the abstracts of the 2012 World Scientific Congress of Golf, see http://journals.humankinetics.com/ijgs?associate=6857&hq_e=el&hq_m=1928611&hq_l=7&hq_v=6e4b13220a.

Golf Wii Useful in Physical Therapy

Therapists' bane are patients who won't put forth the effort required for their own rehabilitation. Now, a new motivational-instructional gimmick is being used and physical therapists are surprised at how quickly patients can achieve prescribed movements. Playing the game requires patients to swing a Wii wireless handheld motion-sensitive wand (“golf club”) in front of a screen that simulates holes on a course. Scoring provides immedi-

ate feedback to patients. The technique reportedly has led to gains in motor skills and range of motion and improvements in balance and coordination. Dr. Arlene McCarthy, director of the neurological physical therapy residency program at Kaiser Permanente in Redwood City, California, sees enormous therapeutic value of Wii golf, telling a *New York Times* reporter that when she visited a class for stroke patients, she saw them “cheering each other on as they watched each other use the Wii.” Although she believes she could achieve the same results using traditional methods of therapy, she sees value in the enjoyment patients experience when playing Wii golf. “I believe therapy should be fun and meaningful for the individual, and if they are having a good time while getting better, it's another tool in our toolbox that we can use.”

www.nytimes.com/2012/09/09/health/physical-therapists-use-wii-golf-to-treat-patients.html?ref=health&r=0

The Fat Can Be Fit

A new study published in the *European Heart Journal* found that obese people who are “metabolically fit” (those with no underlying high blood pressure, no resis-

Continue on Page 18

Short Shots

tance to insulin, no high cholesterol, and no diabetes and who exercise) are at no greater risk for heart disease or cancer than people of normal weight. A review of data from over 43,000 people enrolled in the Aerobics Center Longitudinal Study between 1979 and 2003, one third of whom were obese and half of whom were assessed as being metabolically fit, found that metabolically fit obese people had a 38% lower risk of death from any cause compared to obese people with at least two of the metabolic markers and were at no greater risk than nonobese people. "Weight is a major issue when it's combined with a metabolic abnormality," study coauthor Dr. Timothy Church told *healthland.time*: "When you have weight plus insulin resistance, weight plus hypertension, weight plus abnormal cholesterol—then you have an issue. Obviously the more overweight and the more obese you are, the more likely you are to have a metabolic abnormality." The take-home message is to recognize that obesity by itself may not lead to early deaths, yet at the same time, it is important to resist development of obesity since you are more likely to develop metabolic risk factors if you are overweight.

<http://healthland.time.com/2012/09/05/can-you-be-fat-and-fit-or-thin-and-unhealthy/#ixzz289RTMIR3>

Clenching Your Fist to Optimize the Motor System

Researchers at Technical University of Munich have discovered that clenching the nondominant hand just before executing an athletic response improves performance. Results from a series of three experiments suggest that squeezing a ball or clenching a fist may help athletes prevent choking in high-pressure situations. Right-handed soccer players were more likely to score a high-pressure penalty kick if they clenched the left hand just before the shot. Similar advantages have been discovered for performing judo and badminton under pressure. Theoretically the fist clench activates the opposite side of the brain and suppresses activity in the left hemisphere, which can lead to athletes conscious monitoring of their movements.

Sport psychologist Jurgen Beckmann told *Science Daily* that when athletes clenched the nondominant fist, they were more likely to allow their physical training to take over and avoid becoming a victim to performance anxiety that can be traced to the left hemisphere. They hypothesize that the

same technique could help calm others (e.g., surgeons and musicians) who might benefit from allowing automated processes to take over when they are under stress.

Beckmann, J., et al. (September 3, 2012). **Preventing motor skill failure through hemisphere-specific priming: Cases from choking under pressure.** *Journal of Experimental Psychology: General*. www.apa.org/pubs/journals/releases/xge-ofp-beckmann.pdf.

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Get AKA updates, Share Department news, Comment on current issues and Connect with others through the AKA Facebook page today.



The 3rd Annual R. Scott Kretchmar Student Essay Award

The International Association for the Philosophy of Sport announces the third 3rd Annual R. Scott Kretchmar Student Essay Award in conjunction with its 41st annual conference to be held at California State University Fullerton, September 4-8, 2013. The award is for an essay of outstanding quality addressing any philosophical issue arising in sport or a related area (games, play, dance, embodiment, or other movement-related activities) submitted by an undergraduate or graduate student who is a member of IAPS. More information at: jilunda@linfield.edu

Noted in Passing

More than 145 million adults now include walking as part of a physically active lifestyle. More than 6 in 10 people walk for transportation or for fun, relaxation, or exercise, or for activities such as walking the dog. The percentage of people who report walking at least once for 10 minutes or more in the previous week rose from 56% (2005) to 62% (2010). *CDC Vital Signs, August 2012*

Tennis star Maria Sharapova's grunts and groans during competition—measured at 101 decibels, which is approximately the level of loudness made by a pneumatic drill, speeding train, or chainsaw—have been an annoyance to both opponents and spectators. Martina Navratilova calls it “cheating, pure and simple.” Now the WTA plans to ban the practice for the next generation of players by arming umpires with handheld noise-measuring devices. Presumably Sharapova will be allowed to continue her vociferations until she retires. *Christian Science Monitor, October 1, 2012.*

Forty-five football prospects from the ESPNU top 150 football recruits were

asked by ESPN magazine about the recruiting methods used by schools that invited them on campus. The poll is hardly scientific but nevertheless revealing. Of the respondents, 62% said that “hostesses” were used by schools to influence their decision, and 41% said that drugs or alcohol were available to them during their visit. One in seven said they would accept \$50,000 if offered by a recruiter, and nearly 60% said they wouldn't report violations they witnessed during a recruiting visit. *ESPN magazine, February 6, 2012*

Eighty percent of the general population believes the education college students receive isn't worth the cost; 41% of college leaders agree. Of the general population, 83% strongly or somewhat agree that there is too much of a disconnection between courses colleges offer and students' career goals; 50% of college leaders agree. And 45% of the general population believe gaining skills and knowledge for a career is the most important reason for going to college; 21% of college leaders agree. *Time/Carnegie Corporation of New York poll*

Conferences

American Kinesiology Association Leadership Workshop: Diversity Enhancement in Kinesiology

January 26-28, 2013 Buena Vista Suites, Orlando, Florida
Roundtables, Case Studies, and Panels to Focus on Critical Issues for Kinesiology Department Leaders
Details at: www.americkinesiology.org

Half-Day Conference on College/University Wellness and Instructional Physical Activity Programs

Tuesday, April 21, 2013 Charlotte, NC
Held in conjunction with the AAHPERD National Convention and Expo April 23-27
Contact Lisa Hicks at lhicks@uindy.edu

4th International Conference on Sport and Society

June 13-15, 2013
Chicago, Illinois
Information at: <http://www.conferencealerts.com/show-event?id=109929>

ACSM's 60th Annual Meeting and 4th World Congress on Exercise is Medicine

May 28 - June 1, 2013
Indianapolis, Indiana
www.acsmannualmeeting.org

41st Annual Convention of the North American Society of Sport History

St. Mary's University, Halifax, Nova Scotia
May 24-27, 2013
http://www.nassh.org/NASSH_CMS/index.php

31st Conference of the International Society of Biomechanics in Sports

July 7-11, 2013 Taipei
<http://www.isbs2013.org/>

International Conference on Sport and Exercise Science

March 26-29, 2013 Bangkok, Thailand
Srinakharinwirot University
<http://www.icses2013swu.com>

International Conference on Futuristic Trends in Physical Education

24th to 26th January 2013
Punjabi University
Patiala, Punjab, India
<http://www.icft2013.in>

9th International Symposium on Computer Science in Sport

June 19-22, 2013
Istanbul, Turkey
<http://www.iacss2013.org>

34th International Conference on Sport Medicine and Sport Science

June 27-28, Paris, France
Paper submission deadline: January 31, 2013
<http://www.waset.org/conferences/2013/paris/icsmss/>

Continued from page 2

Expression of Triumph May Serve Evolutionary Function

expressions were labeled as pride, while others were labeled as triumph. Those that were labeled as triumph depicted behaviors that occurred immediately after a victory (arms raised, fists clenched, punching motions), whereas those labeled as pride depicted behaviors that occurred later.

In the set of photos used in the studies, the nonverbal expression of nine individuals from nine different countries on four continents were reliably labeled as triumph. Thus, participants in duplicate studies in the United States and South Korea classified the nonverbal expression of triumph as an emotion distinct from pride.

Matsumoto said in prior studies, congenitally blind athletes demonstrated the same behavior and facial expression as the sighted athletes after a win in a medal match, which suggests that nonverbal expression of triumph is biologically innate.

"If you look at the history of sports, its systematic organized games are analogs of the types of competition that our evolutionary ancestors had to deal with," said Matsumoto. "So if we understand sports as the modern-day analog of those kinds of situations, these findings make a lot of sense."

Interestingly, Matsumoto's studies have not revealed a gender difference in nonverbal expressions of triumph, and women appear to be equally hardwired to signal with nonverbal expression their dominance after a victory.

"So far in our studies, we have not seen a difference between the sexes," said Matsumoto. "That's really curious, because we thought there would be one."

Matsumoto and his colleagues have, however, observed a great degree of difference from one individual to the next in the extent to which triumph is signaled after a significant win; in fact, some people do not express triumph at all.

"We are looking into whether the type of achievement makes a difference, and also at individual differences—whether dominant personality orientations are more likely to produce this expression than nondominant personality orientations," said Matsumoto.

Current and future studies are also focused on the occurrence of the expres-



Judo competitors in the 2004 Olympics show expressions of triumph (left) and pride (right).

sion of triumph in other contexts, including in less competitive sports, and outside of the sports arena. These studies will also look for further evidence that the nonverbal expression of triumph is universal across all cultures and will include subjects who are congenitally blind.

"We are also looking at cultural differences to see whether it is produced more or less frequently in hierarchical, power-oriented cultures that are more achievement oriented. I would think people from East Asian cultures like China and Korea

Continue on Page 22

Continued from page 21

Expression of Triumph May Serve Evolutionary Function

would produce this expression with greater frequency than individuals from egalitarian cultures, like the countries in Northern Europe,” said Matsumoto.

In addition to being a professor of psychology, Matsumoto is a 7th-degree black belt in judo and served as head coach of the 1996 Atlanta Olympic judo team and as team leader for the 2000 Sydney Olympic judo team.

When asked whether an athlete might gain a competitive edge simply by acting out a signal of triumph to communicate power and dominance to competitors, Matsumoto answered that this would not be an effective strategy at high levels of competition.

“It doesn’t change the way we coach. It’s an expression of whether a competitor wins or loses a match. You can certainly have people produce these behaviors, and this could trigger the same physiological response and thoughts—research evidence shows that’s true. But whether this would be meaningful in competition, the answer is no. At the world level, nobody cares about shows of aggression. Contenders care more about an opponent’s record and actual performance. Nothing substitutes

for hard work and training.”

But the ability of coaches to read the emotions and mind-sets of their athletes is valuable in terms of training and getting the best possible performance in competition.

“What you want to do as coaches is understand these kinds of reactions, to understand the minds of athletes as you are building on successes to make larger and larger successes. It’s good to watch how people interpret what they’re doing, because as coaches we have to channel that in a particular way,” said Matsumoto.

And more significant than expressions of triumph in this regard are expressions of shame. “It’s especially important to look at how people process failure, because it’s easy processing success,” said Matsumoto. “I always try to get into the mind of the athlete to see if they are sad about a failure or angry. If sad, that athlete is not motivated to improve. The ones who are going to get better are angry—anger motivates them to do more. As a coach, it’s about helping athletes to interpret failures not as failures but as obstacles to overcome.”

Continued from page 1

Adaptability of Motor System on Display

pitch he wasn’t sure he could throw it the entire 60 feet, six inch distance, but with some diligent training he not only learned to throw it the full distance but put the ball in the strike zone. (Video at: <http://www.wjla.com/articles/2012/05/tom-willis-an-amazing-story-of-inspiration-75520.html>)

Continue on Page 23

Continued from page 14

Can You Compete Under Pressure? BBC Lab UK Used in Kinesiology Research

and emotional states, they are exploring the strategies people use in changing how they feel during competition.

They note, "Because the ability to regulate emotions has been shown to be important in areas of life from family and work relationships to how we deal with risk, the data from Can You Compete Under Pressure? should have application well beyond the world of sport." Test results will be published on the BBC Lab UK website by autumn 2014.

Regarding the potential of the BBC Lab for use by kinesiologists, Lane is optimistic. "The potential for this type of research lies in the creativity in the mind of the researcher. Technology is making great strides, and what was not thought possible 5 years ago is now commonplace on computers now." Lane notes, "The BBC has a project that assesses the motivational effects of music; why could a project not also assess an individual's capability to play a number of different sports? We don't know the relationship between playing simulated computer games and sport, and this type of software also could facilitate answers to such a question." The BBC Lab also is an excellent way of getting undergraduates involved in research as participants and

can serve as a model for research and experimental design.

Anyone interested in proposing a research project for the BBC Lab should contact ideas@bbc.co.uk.

Proposals must meet the following criteria:

- It must be easy to participate in. (The more difficult it is, the fewer people will do it.)
- There must be some motivation for participants. (They should discover something about themselves or the world around them.)
- It shouldn't require mass participation. (Do you really need to reach thousands of people, or will tens of participants do just as well?)
- It must produce new knowledge. (While engaging with "known" science is important, it isn't the purpose of Lab UK.)
- It must employ rigorous scientific methodologies. (You need to be able to guide this idea through a scientific ethics committee.)
- -SJH

Continued from page 3

A Role for Kinesiology Graduates in the Public Health Delivery System

a worldwide initiative to support the development of healthy cities. The goal of the WHO Healthy City initiative is to encourage communities around the world to take action to make the environment more supportive and accommodating to people of all ages. There is compelling data to support the notion that making cities healthier places to live is one of the most effective policy approaches for responding to chronic diseases and conditions. A healthy city is one in which policies, services, and structures in both the physical and social environment are designed in such a way as to enable residents to live actively, be secure, enjoy good health, and participate fully in society.

Healthy cities benefit everyone. Improving air and water quality protects growing children and older people who are sensitive to environmental exposure. Secure neighborhoods are safe for children, youth, women, and older adults. Families experience less worry and stress when their older relations have the services and supports they need. Barrier-free buildings and streets enhance the mobility and independence of both younger and older people with disabilities. There can be no doubt that kinesiology graduates along with other health professionals have

an important role to play in assisting with the development of healthy communities around the world. We can assist with the inventorying of neighborhoods to assess walkability and support for active lifestyle choices; we can advocate for the development of policies and services that emphasize the prevention of inactivity-related disorders; we can promote, disseminate, and deliver evidence-based prevention programs at the community level; and we can work to promote inclusion and independence for people of all ages. Kinesiologists have an opportunity and a responsibility to be active leaders in the global campaign to redesign our communities to support healthy and active lifestyles.

Creating a healthier 21st-century society will not be simple. Healthy communities will be those that find a way to simultaneously involve and engage many sectors of society, including health and social services, education, employment and labor, finance, social security, housing, transportation, and both rural and urban development. In such a vision, physical activity promotion is no longer considered to be the responsibility of one sector; rather, a multisectoral coalition will need to be mobilized if our policies and programs are to be effective.

The clear implication for the field of kinesiology is that, in the future, kinesio-

gists and other health professionals will need to have sufficient background and training to enable them to effectively partner with specialists from numerous other disciplines if they are to participate in the development and implementation of policies and programs that are able to address the complex multifaceted etiology of chronic diseases and conditions. I believe that kinesiology programs around the country are well positioned to prepare our students to meet these challenges. I am certain that kinesiology graduates have a major role to play in the rapidly evolving public health system of the future.

Continued from page 4

Authorship Policies Still Muddled in Biomedical Journals

(3.8) *Journal of Applied Physiology*(3.7), *Journal of Science and Medicine in Sport* (3.0), *Scandinavian Journal of Science and Medicine in Sport*(2.9), *Exercise Immunology Review* (2.8). Number ten, *Exercise and Sport Psychology* (2.7) requires that all ICMJE criteria be met.

See Bosch, X. et al. (2012). A comparison of authorship policies at top-ranked peer-reviewed biomedical journals. *Archives of Internal Medicine*, 172(1), 70-72.

-SJH

Continued from page 6

Stand Up for Your Health

to come to work.”

Other standing-desk users say they increased their productivity, reduced stress, and feel more energized since incorporating the standing desk into their work days. Standing prevents both the repetitive stress and muscle atrophy that are caused by sitting.

However, Lee does say that he cannot stand for more than 3 hours at a time without getting tired in his ankles, knees, and legs. It is suggested that stand-up desk users alternate between standing and sitting to avoid fatigue and other complications, such as varicose veins. It is also recommended to shift position often while standing, wear comfortable shoes, and stand on a pad to cushion the feet.

While longer periods of just standing at a desk have great benefits, some workers have taken it a step further and converted to the new trend of treadmill desks. Greg Welk, a physical activity and public health researcher at Iowa State University, recently conducted a study to gauge the use of treadmill desks in a university setting. The study made treadmill desks available to over 40 units at ISU in a communal area for all employees to use. According to Welk, the overall response was very positive. Use of the treadmill was influenced by the type of work that was done and also by the ability to work

in the communal area. They recommended that treadmill users walk at a pace of 1 to 2 miles per hour on a flat grade and wear comfortable shoes during their walking time. A third of the survey respondents attributed improvements in physical and mental well-being to use of the treadmill desk.

Welk himself has continued to use a treadmill desk after the study. “I feel better just knowing that I’ve been on my feet,” he said. Welk prefers to use his treadmill desk when he has more mundane tasks to do, which usually adds up to an hour or more each day. “Avoiding sitting too long is the key. Moving around every hour is good just to avoid the continuous sitting time,” Welk said.

The study at ISU was done in collaboration with the manufacturer of the Trek Desk. The Trek Desk can be used in combination with an existing treadmill; it does not come with the exercise equipment. Steve Bordley, the founder of Trek Desk, had spent almost



Duck-Chul Lee, Iowa State University, uses a simple stand-up desk made from a cardboard box.

two years in a wheelchair as the result of a gunshot wound and was looking for ways to regain his strength and relieve pain in his lower body. He began to research the benefits of walking and experimented with a simple rubber tub stacked on his treadmill. From there the Trek Desk has evolved into a growing business. The academic sector has responded enthusiastically to Bordley's product. “Academics get more information and adapt to it more quickly than the general public,” he said. Bordley is passionate about his mission to get people moving to improve their health. “I have never felt better about what I am doing. The more (Trek Desks) that are out there, the more people get the message.”

Amy Woods, associate professor in the kinesiology and community health department at the University of Illinois at Urbana-Champaign, feels like she is an inspiration to her students when they see her walking on her treadmill desk. The U of I has been very supportive of Woods' choice to move to a treadmill desk. The technology department has helped her obtain the preferred computer equipment, and her department administration has supported her in every way. She walks at a slow pace for about 1 to 2 hours a day. She says, “I don't consider this my workout. It's more psychological. I feel more productive and more relaxed when I work.”

Continued from page 13

Detecting Talent in Sport: The Questionable Use of Psychological Inventories

athletes with “low scores” on these inventories will likely have fewer opportunities to compete and feel less motivated and patient to nurture their talent through high-quality coaching, instruction, and practice. Whether community resources should serve the few at the expense of the many when it comes to the number of children and adolescents who would benefit from competitive sport remains questionable.

Another philosophical issue is the lack of agreement among coaches, practitioners, and researchers about the most desirable psychological characteristics of elite-level competitors. Several studies have attempted to ascertain the psychological characteristics of highly skilled competitors. Some characteristics have been consistently identified (e.g., confidence, risk taking, competitiveness, optimism, mental toughness). However, whether these characteristics—or the inventories used to measure them—predict an athlete’s performance potential or discriminate between athletes who compete in elite and nonelite levels remains far from certain. The criteria for admitting athletes into “special” programs remain murky.

Better options than TD programs include

applying existing funds toward recreational programs, improving fitness, learning new sport skills, and programs for high-risk individuals (i.e., adolescents involved in crime and drug abuse). In addition, TD programs can be reconceptualized to stress the appropriate development of sport skills rather than the early selection of young prospects, and then focus on meeting each athlete’s individual needs through high-quality coaching and program opportunities. Athletes need to be directly observed and assessed by skilled coaches. Practitioners can teach athletes the array of mental skills that are ubiquitous in the literature, then monitor competitors’ progress during the intervention.

Finally, athletic success should be tied to accumulating more time devoted to instructional practice and to the coach’s systematic observation and assessment of each athlete’s skills, followed by a plan of action for proper training and skill reassessment. Rather than excluding athletes who demonstrate low scores on an invalid inventory, coaches and parents should provide athletes of all ages the opportunity to select sports that interest them and in which they show some degree of competence, and then allow the normal processes of growth, development, and emotional maturity to form an integral part of

the TD process. It is apparent that the field of sport psychology is not, and has never been, about the selection or elimination of athletic participants whose responses to psychological inventories determine their future involvement and enjoyment in sport.

Segments of this article appeared in Anshel, M.H., & Lidor, R. (2012). Talent detection programs in sport: The questionable use of psychological measures. *Journal of Sport Behavior*, 35, 239-266.

Continued from page 15

Stadiums Stuffed with Stuffed Zealots a Mockery of Kinesiology's Objectives

alumni to be more physically active, but also be the campus watchdogs that sniff out ways our institutions impede on our avowed mission.

Yet it seems not to have dawned on kinesiologists that big-time college athletic programs whose viability depends on filling thousands of sofas and stadium seats with hordes of ever-widening posteriors—made more ample by the offerings from university-supported concession stands—work at cross-purposes to our avowed mission of getting everybody to move. A campus venture that invests millions of dollars in perfecting the movements of an elite few for the entertainment of the sedentary masses should be a red flag to every kinesiologist committed to changing the health of the nation.

How should our discipline respond? Attacking the college sport-industrial complex probably won't have the intended effects. Criticism of college athletes with an eye for reform historically has been a futile exercise, even when mounted by university presidents. Perhaps the best strategy is for kinesiology departments and organizations to lobby for on-campus physical activity initiatives for students, faculty, and

alumni just as *ambitious in scope and just as well funded* as current sport programs dedicated to the talented few. We're not just talking about building more exercise facilities and redesigning campuses to encourage walking but a full-scale, serious commitment to whipping up the same level of enthusiasm for performing physical activity as currently exists for watching it. This will mean an integration of physical activity in all reaches of colleges and universities, curricular and extracurricular. Pressuring universities to siphon off millions from the windfalls placed in the laps of their athletic programs from television and gate receipts in order to ward off the perils of an overweight, overfed, underexercised citizenry seems not too much to ask of universities fond of boasting of their relevance to social needs.

Welcome New AKA Members

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