Kinesiology Today

AKA American Kinesiology Association

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# Physical Activity May Not Promote Weight Loss

A recent editorial in the *British Journal of Sports Medicine* suggests that exercise does not promote weight loss and in fact can produce weight gain. The UK's Academy of Medical Royal Colleges claims that exercise is good for health, helps prevent many common diseases, and is better than many drugs, but exercise does not contribute to weight loss. The authors suggest that we are swarmed with messages about diet and exercise, and some of the information is just incorrect. Furthermore, the food industry relays incorrect messages and is using tactics similar to those used by the tobacco industry that allowed tobacco to go unchecked for nearly 50 years. The authors criticize the sugary-drink industry for promoting their products by suggesting it is okay to drink these products as long as people exercise. They cite research that shows that sugar intake leads to hunger, whereas fat intake may result in satiety, so it is not the calories but where the calories come from that are important. They further suggest that carbohydrate restriction is the key to many health concerns and can also contribute to weight loss.

Photo credit: www.washingtonpost.com

The authors state, "The 'health halo' legitimisation of nutritionally deficient products must end." Furthermore, vested interests are the cause of incorrect messages that have led us to believe incorrect information and reduce the likelihood of government

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# Mobile Apps and American College of Sports Medicine Guidelines

The American College of Sports Medicine is the leading authority providing evidence-based research to support exercise guidelines (www.acsm.org). The guidelines prescribe the intensity, duration, and frequency of exercise and also state that comprehensive programs should include cardiorespiratory, resistance, flexibility, and neuromotor training. Researchers at the University of Florida were interested in whether mobile apps for phones were a valid way to deliver health-related fitness information. Currently hundreds of health-related apps are available and some have demonstrated efficacy in modifying behaviors. Through a process of elimination, the researchers found 30 free apps specifically targeting exercise prescription and scored the quality of these apps against the guidelines provided by ACSM.

Each app was scored on the components of aerobic exercise, strength and resistance, and flexibility training. Safety, program principles, and individual training principles were scored by three individuals, and scores could range from 0 to 14. In the event of disagreement among raters, a fourth rater was brought in. The data indicated that a little more than half of the apps contained information related to the aerobic components, a majority of apps contained information on the strength and resistance component, but two-thirds did not contain information on the flexibility aspect of exercise.

According to their rating scale, only the Sworkit Lite Personal Trainer scored above 60% (9.01 out of 14). The inter-rater reliability was relatively low, which is of concern; however, all raters agreed that none of the apps met all the ACSM guidelines. Additional research will need to be conducted so that the methodology can be improved. Also, there is a need to examine apps that charge users some fees. Many websites rate fitness apps, but most have to do with ease of use, battery drain, and other technical aspects. Users need valid information on what works best and also what meets nationally recognized guidelines for exercise. KT

- PMc

Modave F, Bian J, Leavitt T, Bromwell J, Harris III C, Vincent, H. Low quality of free coaching apps with respect to the American College of Sports Medicine Guidelines: A review of current mobile apps. JMIR mHealth uHealth 2015;3(3):e77. http://doi.org/10.2196/mhealth.4669.

# Activity Trackers: Are They Accurate?

It's common to wear a bracelet that measures activity, calories consumed, sedentary time, and sleep. According to a recent article by researchers at Iowa State University, up to 42 million of these devices were sold in 2014. I suspect that many readers of KT have these bracelets on their wrists. But the question is this: Do they accurately measure what they are purported to measure?

Professor Welk (second author to graduate student Bai) indicated in an e-mail that "We have been doing a lot of work with these consumer monitors. We haven't seen much else being done with regards to validity of these devices and that is why we took some of this work on. We have a third study in process testing the new iWatch and the other devices that reportedly integrate HR data." We will look forward to seeing this work.

While some previous research had tested the effectiveness of some monitors, this study attempts to extend the research to compare five popular devices (Fitbit Flex, Jawbone UP24, Misfit Shine, Nike+Fuelband, and Polar Loop). Additionally these devices are compared to two research monitoring devices: Actigraph GT#X and BodyMedia Core. To determine validity, all devices were compared to Oxycon Mobile, which provides a direct measure of oxygen consumption and carbon dioxide production.

Fifty-two volunteers ages 18 to 65 volunteered to wear all five consumer-based devices, two research devices, and the portable metabolic Oxycon system. All participants completed three experimental phases: 20 minutes of sedentary activity; 25 minutes of aerobic exercise on the treadmill, and 25 minutes of resistance exercise. In an attempt to make the situation as realistic as possible, participants could alter the activity (e.g., increase speed on treadmill).

The researchers had trouble getting the same data from the web and application for the Polar Loop, so these data were removed from the analysis. In comparing the data for energy expenditure, it was found that the Fitbit, Jawbone, and Nike+Fuelband provided comparable accuracy because the research monitors for total energy expenditure. However, the devices were not as accurate when examining sedentary activity and aerobic activity, and all produced error rates of over 20 when measuring resistance activity. However, a real question is even if the devices are fairly accurate, can they influence behavior change and actually help get people moving?

Yang Bai, lead author and graduate student, along with Professor Greg Welk. Photo Courtesy of Greg Welk, Iowa State University.

Lara Lewington did her own experiment and it was reported in BBC Click TV on February 10, 2015. She spent a full week wearing four popular monitors. She found that the devices did not report the same findings. "At their worst, one day saw a variation between them of 23% in distance covered, and over the course of a week a difference . . . in 2,649 calories burned." KT

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Bai, Y., Welk, G.J., Nam, Y.H., Lee. J.A., Lee, J., Kim, Y., Meier, N.F., & Dixon, P.M. (2015). Comparison of consumer and research monitors under semistructured settings. *Medicine and Science in Sports and Exercise*. Accepted June 19.

President's Message

# AKA and the Future of Kinesiology in Higher Education

*By Duane Knudson, AKA President*

Duane Knudson

Approaching the end of 2015 and my term as president of the AKA means it is a good time to evaluate the year and think about the future. Some of you may recall my first column this year used the theme from the 1985 film *Back to the Future* to introduce this year's emphasis on proactive promotion of the importance of kinesiology. Despite substantial contributions to theory and practice, kinesiology remains underappreciated and off the radar of our across-campus peers, university administrators, politicians, and the public. My subsequent columns explored how we can take advantage of the impact evaluation culture and how you and AKA can support the field through the recognition of meaningful accomplishments in our field. Let me begin my last column with some contributions to AKA and the field this year.

Two scholars who have clearly made contributions to the AKA and who are making transitions this year are Dr. Shirl Hoffman and Dr. Penny McCullagh. Shirl has served the AKA since 2009 as executive director and recently as editor of *Kinesiology Today. KT* has become an outstanding and attractive e-magazine on important issues related to kinesiology departments and our field. Fortunately, for us Penny is taking over this important editorial role so you can continue to share *KT* with your faculty and selectively with your dean and provost. I also want to thank Penny, who is completing her service as past president of AKA. Penny has been an insightful and inspirational leader who initiated several programs that will serve AKA and the field for many years. These initiatives include getting AKA on the board of the National Physical Activity Plan, an ad hoc committee making recommendations for changes to the NCES on CIP codes, and the kinesiology teaching resources on MERLOT. All these provide substantial recognition of the field of kinesiology.

Our executive director, Dr. Amelia Lee, and the AKA staff continue to do outstanding work in keeping our organization on task and moving forward. They and the board made substantial improvements and updates to the by-laws and committee operating codes. Amelia has been instrumental in keeping new authors coming in our monograph series titled Leading and Managing the Kinesiology Department. Kudos also to Dr. Greg Welk for his leadership in organizing the 2015 workshop and *Kinesiology Review* special issue on kinesiology and public health. Dr. Rick Kreider and Dr. McCullagh are busy making final preparations for our 2016 workshop titled Innovation and Entrepreneurship in a Time of Shrinking Budgets in San Antonio January 31 to February 2, 2016. The preworkshop meeting that runs concurrently with the AKA board meeting will be presented by Dr. Gill Reeve on the evaluation of faculty. Many more have contributed to AKA than can be listed here in this column, so let me thank all who have supported, attended, or served with the AKA in 2015. This year we also sent a letter to the American Council on Education about using the term *physical education* to refer to our field on their website; completed the latest national survey on faculty salaries, recruitment, and compensation in the field; and contacted

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Technology

# iPads on the Tennis Court

Tennis is not known for keeping in-depth stats or reporting these as part of matches, and coaches have not been allowed to coach during matches. Well, times are changing. In August at the Bank of the West Classic (the longest-running women's-only tournament in the world), coaches and iPads came to the sidelines. The software for the tablet was designed by SAP, a company that has worked with the WTA since 2013 (https://sapsponsorships.com/articles/wta-press-release). Typical stats for tennis include first-serve percentages and aces that are fed directly from the umpire's electronic scoring system. Some matches use a system called Hawk-Eye that collects video that can be used when there are close line calls (www.hawkeyeinnovations.co.uk/sports/tennis). Graphics can also display court position for shots.

With this new information, coaches can show players their stats for the particular game in progress. For example, they could demonstrate on the court where their serves were landing so players could see how to make adjustments. Traditionalists do not like the idea of sideline coaching and increasing stats for the media, but the WTA has allowed the use of the tablets for several up-coming tournaments. The iPads, which have been designed to resist damage from the sun, must be returned at the end of the tournament. At this point there are no iPads or sideline coaching in men's tennis.

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Photo credit: www.wsj.com.

Perrotta, T. (2015). Tennis gets hip to this whole "stats" thing. *Wall Street Journal*, August 4.

TECHNOLOGY

# Small Inflatable Worn on the Arm to Prevent Drowning

According to the Centers for Disease Control and Prevention, about 10 people die each day from unintentional drowning, and drowning is the fifth-leading cause of unintentional death in the United States. Given these statistics and also personal tragedy due to a friend's drowning, Tom Agapiades, a former insurance agent, invented a device called the Kingii (http://kingii.us) to try to save people when they get in trouble in the water. When Jennifer Joly of the *New York Times* asked about his invention, Agapiades said, "When you drive a car, you put your seatbelt on. When you ride a bike, you put on a helmet. But how do you protect yourself in the water? No one swims around with a lifejacket on, and that's when they get in trouble." The device he invented is worn around the wrist and has a pouch with carbon dioxide. If you get in trouble in the water, you pull on the kingii and the bag inflates, raising you to the surface. The device also has a built-in whistle and a compass to help navigate if needed. There are two CO2 tanks, so you can practice with one and keep the other for real emergencies. Of course, the swimmer needs to be conscious to use the device and must intentionally release the bag. Other devices, like the Iswimband (www.iswimband.com), make a sound if the swimmer is underwater too long, and the SealSwimSafe (www.sealswimsafe.com) is made for beginners through advanced swimmers. Some parents may choose not to rely on such devices and just get their children to attend water safety courses so they can become good swimmers. KT

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Photo credit: www.kinjii.us.

Jolly, J. (2015). Technology to keep swimmers safe. *New York Times,* August 18. http://well.blogs.nytimes.com/2015/08/18/technology-to-keep-swimmers-safe/?_r=0.

# Exercise and Asthma

*By Patrick Wade, KT Staff Writer*

Patients whose asthma is well managed by medication may still benefit from regular physical activity, suggests a small study led by researchers at the University of Sao Paulo School of Medicine in Brazil.

Dr. Celso Carvalho and his team found that a three-month treadmill regimen decreased airway inflammation and hypersensitivity in asthma patients whose disease had been controlled by drugs for at least 30 days. It was no surprise to Carvalho that exercise would help with asthma symptoms. His team's paper notes that a fear of triggering asthma symptoms often keeps patients from engaging in physical activity, eventually creating an aversion to exercise and physical activity altogether. That is somewhat ironic, given that past studies had shown that a low level of physical activity was strongly associated with an increase in the airway hypersensitivity that underlies asthma symptoms.

Research by Carvalho's group previously had indicated that exercise improves quality of life for asthma patients, but this time they were out to determine specifically why that could be. "Our research group had previously demonstrated that aerobic exercise improves the quality of life and reduces symptoms in asthmatic patients," Carvalho said. "However, no one knew if aerobic training would modify the main features of the clinical asthma: bronchial hyperresponsiveness and airway inflammation."

To find out, researchers put 22 asthma patients 20 to 59 years of age on a treadmill for 35 minutes per week for 12 weeks. All of the patients had symptoms that had been well managed by medication for at least 30 days before the beginning of the study. Those patients were then exposed to chemicals that trigger airway constriction in what's known as a bronchial provocation test, which is meant to measure bronchial hyperresponsiveness. The oversensitivity of airways decreased in the exercise group, while 21 patients who were not part of the treadmill regimen saw no change. The exercise had an anti-inflammatory effect in the asthmatics, according to the study. That's important, Carvalho says, because the results could explain why asthma patients who are physically active may have a reduction in symptoms even if they have the disease under control.

Photo credit: drkripsak.com

"Most patients with moderate and severe asthma remain with asthma symptoms despite the fact they take the medication properly," Carvalho said. "Our previous studies have shown that these patients have around 15 days with asthma symptoms monthly. This means that asthmatic patients with higher severity of the disease still have symptoms no matter if they are properly medicated."

But the medication could be supplemented with regular exercise to alleviate those lingering symptoms, the research suggests. "It is important to offer an exercise training program to reduce the disease patho-

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Editor's One Cent's Worth

# Motivated To Move Forward with KT

*By Penny McCullagh, KT Editor*

Penny McCullagh

I am pleased that the AKA Executive Board approved my position as editor of *Kinesiology Today*, but I am also somewhat overwhelmed and humbled by their support. I have always enjoyed KT and the outstanding job that Shirl Hoffman did with this publication. I have chatted with Shirl on several occasions and know he holds this project close to his heart and spent considerable time building it. I hope I can carry on his legacy and extend the readership of *KT* even further. In his last column (summer issue of *KT*) Shirl noted, "KT is actually much more than a newsletter. I refer to it as an e-mini mag featuring news about physical activity that doesn't appear elsewhere in a single publication." His inspiration for *KT* was *Psychology Today*, a popular magazine founded in 1967 that turns psychology literature and technical research into reader-friendly news. I hope to carry on this tradition but also add a little newsletter-type information on the final page of each issue. AKA as an organization performs a lot of functions to support kinesiology, and I hope that by adding this newsy-type page we can keep our readers informed of those events.

For this issue I have not done anything dramatic to change *KT*. In fact, Shirl has fed me innumerable links to help me track down stories and features that I think may be of interest to readers, and I thank him for getting me started. In fact, I hope he finds some time to continue since he is a real detective. Now I have a long list of ideas—some may be good and some may be bad—that I want to ruminate over. I also want to do what faculty and students in kinesiology think to be important. The Publications Committee of AKA will be assisting and providing feedback, but I welcome your feedback and ideas for making *KT* an asset to our field. Here are some of my ideas:

- Review similar publications in other disciplines. If anyone has an example that is particularly useful, please send it along.
- Supply tips about how they use KT. For example, when I was department chair I shared it with parents of incoming students. I asked when they attend a party and say their child is a kinesiology major, are they faced with blank stares? Invariably the answer was yes! So I directed them to the website so they could get ready conversation pieces for their next party.
- Share innovative ideas of what faculty and students are doing in their departments. For example, does your department have any programs that are inter–intra, or cross-disciplinary in research, teaching, service, or all?
- Continue to summarize recent research but make sure I bias it so kinesiology researchers are highlighted. If you or someone in your department has a high-profile research topic that is hitting the popular press, please send it along to department chairs. This is a good time to spotlight your faculty.
- Conduct Interviews with leaders in the field or write opinion articles on timely topics.

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# Daily Activities Influence Sleep

*By Patrick Wade, KT Staff Writer*

A new study from researchers at the Center for Sleep and Circadian Neurobiology at the University of Pennsylvania shows that the specific types of physical activity people routinely engage in may affect how long they sleep at night. Physical activity has always been associated with healthy sleep, said lead researcher Dr. Michael Grandner, but the new data show that specific kinds of activity may have different effects on whether people are getting the appropriate amount of sleep.

Walking, aerobics, calisthenics, running, weightlifting, yoga, Pilates, and even golf were all associated with a greater likelihood of getting healthy sleep, according to the data. But people who regularly engaged in other activities, like childcare and household work, were more likely to sleep for too long or not long enough.

Because previous research has shown that people who get less than seven hours of sleep every night are at greater risk for poor health, researchers aimed to determine whether people who reported specific activities were more likely to report poor sleep habits. "Since different kinds of activity have different effects on the mind and body, we hypothesized that this would result in different relationships to sleep," Grandner said.

To test that idea, researchers looked at data from the 2013 Behavioral Risk Factor Surveillance System, for which 429,110 adults were surveyed by telephone about their health-related risk behaviors, chronic health conditions, and use of preventive services. Survey respondents provided information about the types of physical activity they engaged in most, and they also provided information about how much sleep they got each day.

Walking was by far the most common reported activity, and walkers were more likely to sleep for normal periods. Compared to people who reported no physical activity, walkers were less likely to sleep for very short (less than four hours), short (five to six hours) or long (more than nine hours) periods. But other types of physical activity showed effects above and beyond walking. People who run, bike, or do other types of aerobics or calisthenics were even more likely than walkers to get healthy amounts of sleep.

Other types of activity, like yardwork, golf, jogging, and swimming, had different effects compared to walking. While swimmers, for example, were more likely than people who are not physically active to get seven to eight hours of sleep, swimmers were also more likely than walkers to sleep for more than nine hours each night.

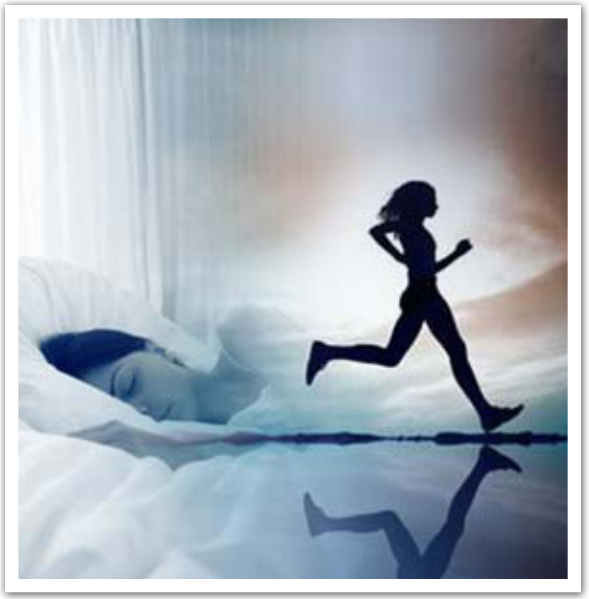

Photo credit: www.khabar.com.

Researchers explored a total of 10 kinds of activity, and there was only one category associated with worse sleep: household

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# What People Talk About on Social Media

A team of primarily mathmatical researchers from the United States and Australia have developed a methodology (Lexicocalorimeter) for collecting data on caloric input and output from online social media. They contend that measuring behaviors at the populaton level may assist in helping establish public policy. By monitoring 50 million tweets in 2011 and 2012 in the continental United States, they suggested what foods provided the biggest caloric intake and what activities provided the biggest caloric output. The maps here are not unlike the CDC Obesity Prevelance Maps: www.cdc.gov/obesity/data/prevalence-maps.html.

The tweets were not used to indicate most popular activities. Rather, the data reflect the caloric input based on calories per 100-gram serving or the caloric output based on metabolic equivalent of tasks (METs). Eating noodles and running appeared to represent the highest caloric input and output, respectively. However, if you just want to sit, you might find lots of people in Ohio who appear to communicate a lot about sitting.

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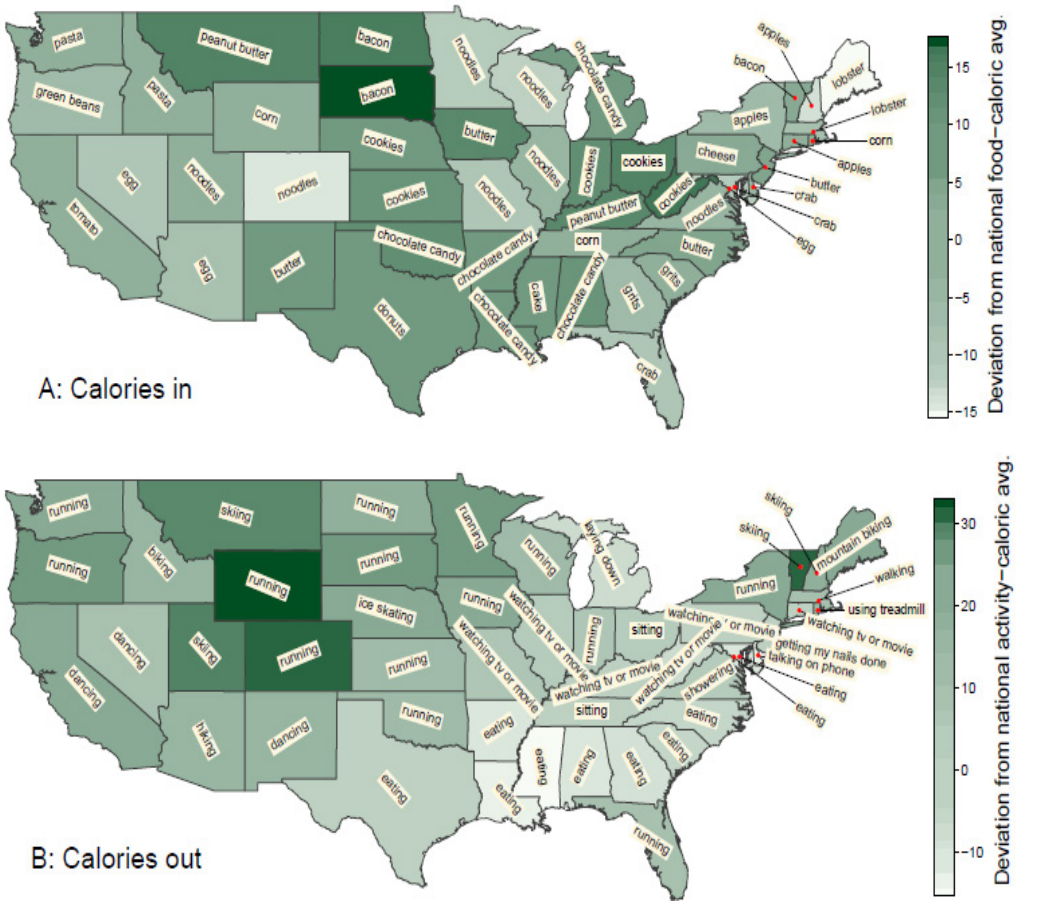


Alajajian, S.E., Williams, J.R., Reagan, A.J., Alajajian, S.C., Frank, M.R., Mitchell, L., ... & Dodds, P.S. (2015). The Lexicocalorimeter: Gauging public health through caloric input and output on social media. http://arxiv.org/abs/1507.05098. July 17.

# Can You Do It Again? Replications and Reproducibility in Psychological Science

In a concise article published in *Science*, one of the world's most recognized scientific journals, a team of 270 researchers addressed the issue of reproducibility in psychological articles from three top research journals. In science we expect that results should be reproducible if we want to take the outcomes and recommendations seriously. In extreme examples, we would not want to recommend a particular treatment or drug unless it has been shown multiple times that a specific dose has a particular and very similar effect. Similarly, we would not want to suggest a particular psychological intervention unless it shows that same sort of consistency. According to the authors, "Direct replication is the attempt to re-create the conditions believed sufficient for obtaining a previously observed finding and is the means of establishing reproducibility of a finding with new data." Some researchers have suggested that more than half the results are not reproducible, and the authors cite work that in cell biology laboratories only about 25% of the results of some landmark studies could be reproduced. The current authors wanted to address the issue of reproducibility in a transparent and clearly reported fashion in psychological science.

Using a systematic process, 100 articles were chosen for the project. The research designs of the chosen studies were divergent, and an attempt was made to carefully replicate the original study. Authors of the original studies were contacted, and a specific protocol was posted so that all individuals could monitor the process. The articles were chosen in a quasi-random sample fashion and were chosen from three high-quality psychological journals: *Psychological Science, Journal of Personality and Social Psychology,* and *Journal of Experimental Psychology: Learning, Memory, and Cognition.* The project coordinators attempted to match the replication team according to interests and expertise. If there was more than one study, the last one in each publication was chosen.

To determine the extent of reproducibility, the project coordinators choose significance and p-values, effect sizes, and meta-analysis effect sizes as well as a subjective assessment. The final measure was a simple yes-or-no response to the question "Did your results replicate the original effect?" Using significance testing, only 35 of the original 97 studies were replicated. Using effect sizes, there was a 47.4% replication rate. For the subjective question of whether you thought you replicated the result, only 39 out of 100 responded positively.

The findings were quite clear. The replication studies produced weaker effects than the original studies. If you can directly replicate an original study, that provides information on reliability. Providing a clear understanding of behavior requires multiple approaches, multiple methodologies, and ideally multiple researchers from different laboratories or research groups. Expecting that original studies that show particular effects are what should guide our practice is not reasonable. If so, then there would be no reason to conduct additional research. In conclusion, they suggest, "This project provides accumulating evidence for many findings in psychological research and suggests that there is still more work to do to verify whether we know what we think we know."

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# Breath-Holding Games May Lead to Drowning

At first guess most people would assume that drowning occurs primarily among nonswimmers or perhaps in very dangerous ocean waters. Since drowning is the fifth-leading cause of unintentional death in the United States, there is concern about how we can modify behaviors that might reduce these risks. However, there is another cause of drowning that occurs with individuals who are experienced swimmers that leads to hypoxic blackout. Each week the Centers for Disease Control and Prevention (CDC) publishes articles in *Morbidity and Mortality Weekly Review (MMWR)* that highlight data on public health issues. In May 2015 authors reported on data from the Department of Health and Mental Hygiene of New York City and the Department of Health of New York State that reviewed case studies of 16 drownings between 1998 and 2011 as a follow-up to two underwater deaths of experienced swimmers. After reviewing the cases, they called the phenomena dangerous underwater breath-holding behaviors (DUBBS). It was determined that three types of behaviors led to drowning in these cases:

- Intentional hyperventilation, such as doing strenuous exercise before swimming and then breath holding while swimming to prepare for an intensive military test
- Static apnea, such as breath-holding contests
- Hypoxic training, such as swimming underwater while holding breath for long periods with the idea of improving lung capacity

All of these activities are choice behaviors and thus preventable. As a result, organizations such as the American Red Cross warn against hyperventilating before swimming or having underwater breath-holding contests. If you have a child on a swim team, you might also want to check with the swimming coach to determine awareness of the dangers of this type of activity. KT

-PMc

*Morbidity and Mortality Weekly Review,* May 22, 2015. www.cdc.gov/mmwr.

# Try to Match These Feats!

**Evelyn Jones** recently turned 108, and on her birthday she threw out the first pitch at the Seattle Mariners game, becoming the oldest person to do so. The Mariners played their first game in 1977 when Evelyn was 69, and on July 11 she wore a jersey with 108 on the back as she pushed her walker out near home plate to lob the ball to Felix Hernandez. The entire stadium sang "Happy Birthday" as the mascot presented a cake.

Photo credit: www.sport.yahoo.com.

**James Lawrence**, a 39-year-old triathlete and father of five, reportedly completed 50 Ironman triathlons in 50 states in 50 days. Yes, the full distance—2.4-mile swim, 112-mile bike, and a 26.2-mile run. He started in Hawaii and ended in his home state of Utah, raising $70,000 for the James Oliver Food Foundation charity. Along the way he had supporters run the last 3.1 miles of each marathon with him. He finished his final triathlon in 11.5 hours. Not bad, considering the World Championship record from Kona set in 2011 was 8 hours 3 minutes 56 seconds. He had support from his wife and children, who traveled with him in a motor home, as well as drivers, masseuses, and chiropractors.

Photo credit: rudyprojectusa.com.

**Janet and Tony Blundy**, a Michigan husband-and-wife team, reported that they each hit a hole in one at the same hole while playing at the Ledge Meadows golf course in Michigan. Luckily, another couple playing at a nearby hole verified the aces, or it is likely that no one would believe them. The American Hole in One Association calculates that the odds are 26 million to 1 that two people in the same foursome will make an ace on the same hole on the same day. Add to that the people are husband and wife, and the odds are staggering. Holes in one are so unusual that some golf courses take out hole-in-one insurance if they sponsor a tournament and offer a major prize for an ace so they do not lose money.

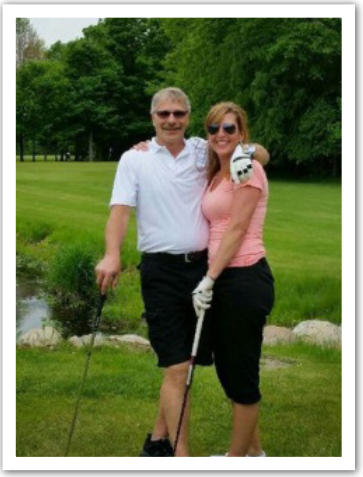

Photo credit: www.abcnews.go.com.

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## Try to Match These Feats!

**Scott Smiley**, accompanied by his brother-in-law guide Andy Cooper, completed his first Ironman-length triathlon in Idaho in June. Smiley is not the first blind athlete to complete such a feat, but it was his first! The first to complete the Kona Ironman World Championship was Tina Ament in 2014 with a time of 16 hours 8 minutes. Scott finished his in 16 hours 48 minutes 25 seconds. Smiley was on deployment in Iraq in 2005 when a suicide bomber left him severely wounded and blind and without hope. His family and friends inspired him and continue to do so. With temperatures over 100 degrees by the time the marathon portion began, the course proved extremely challenging. Smiley is tethered to his guide during the run and swim and rides tandem on the bike. Lots of athletes have done this, and hats off to those guides who help athletes achieve what might seem impossible.

**Kim Chambers** trained as a ballet dancer through her teenage years in New Zealand. She was a rower at UC Berkeley and then took up swimming to help rehabilitate a severe leg injury that almost required amputation in 2009. The photo is from Aquatic Cove in San Francisco at the Dolphin Club and South End Rowing Club, one of the sites where she trains. In August of 2015 she swam around the Farallon Islands outside of San Francisco. When most people think of cold-water long-distance swimming, they think English Channel, which more than 3,000 people have swum. But this 30-mile swim in shark-infested waters is the most difficult. To date only 4 people have completed the swim, and they were all men. She jumped in the water wearing only a swimsuit (no wet suit) at 11:30 p.m. and passed under the Golden Gate Bridge 17 hours 12 minutes later. Check her out at http://kimswims.com.

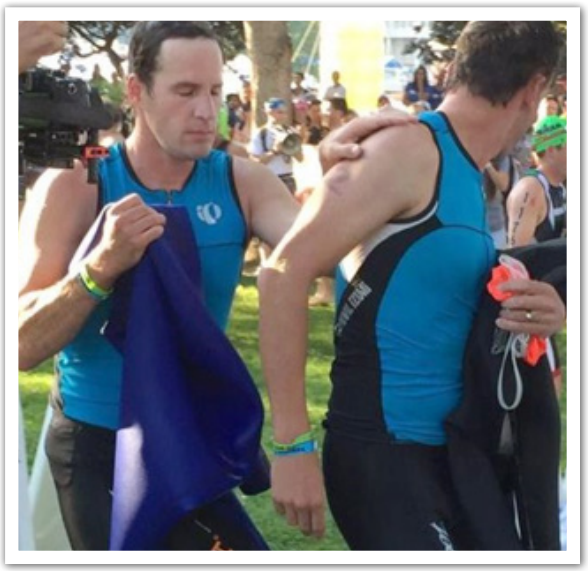

Photo credit: www.krem.com.

Photo credit: www.fiarfieldcitizeonline.com.

# Short Shots

## First woman with a shot at Major League Baseball

Each year players are selected to participate in the MLB European Elite Camp. Sixteen-year-old shortstop Melissa Mayeux was one of four French players selected and will work with Hall of Fame shortstop Barry Larkin at the camp. Of the 76 players previously chosen from the camp to sign with MLB, two have reached the majors. Lyndsay Berra, a columnist for MLB.com, interviewed Mayeux, who speaks only French. She said, "I grew up with the same boys, so we've known each other since I was very little. I've never had a problem with integration or respect. We're very well connected, and that makes a good team." Will she get signed? Search the Internet and you will find lots of naysayers, but nonetheless, she made first base on this one. KT

Photo credit: www.mlb.com.

## Prisoners Run

In a full-length story in the June 25 issue of *Runner's World*, Michael Heald reveals the tale of how prisoners who have gained privileges in the Oregon State Penitentiary are running regularly and scheduling races up to a half marathon. Michael has been attending races at the prison since 2014. This time, he takes his boss, who runs a brewpub in Portland and has a decent marathon time (2:29). They pass through security wearing orange vests to separate them from prison blues. The inmates share some of the few safety pins they have to attach numbers and then banter about what they ate for breakfast and how hot it might become. It all sounds like regular prerace talk. Michael had looked up the criminal records of some of the inmates but stopped himself from completing the task.

Photo credit: www.oocities.org.

Races occur one day a month, and only 130 of the 2,000 inmates have earned a spot in the running club. The club is over 40 years old and is run and funded by the inmates. It takes 18 months of good behavior to get into the club, and the waiting list is long. Members of the running club are also allowed daily training time on the track, which is a distinct advantage over sharing the space with hundreds of inmates. Steve Prefontaine, an Oregon-born runner who at the time of his accidental death in 1975 held every American outdoor track record between 2,000 and 10,000 meters, never

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# Short Shots

got a chance to try for a medal in the 1976 Olympics. Steve visited the prison on a field trip in college. He felt that running could save him and perhaps help save others, so he continued to visit the prison to help with coaching. Dellinger, his former coach, also participated in the prison program. One runner who completed his prison term often returns to support the other runners and functions as a role model for making it on the outside. The discipline required for success as a distance runner seems to be helping some of the inmates rehabilitate.

Heath, M. (2015). For inmates, "the wall" has a totally different meaning. *Runner's World,* June 2015.

## Skyrunning

What combines mountaineering and running and takes place in the mountains? A newly designated sport called skyrunning. While long-distance running over mountains has been around for quite some time, it was Marino Giacometti, an Italian mountaineer, who started races on Mont Blanc and Monte Rose in the Alps in the '90s. In 1995 he started the Federation for Sport Altitude, and then in 2008 the International Skyrunning Federation (www.skyrunning.com)

Photo credit: www.irunfar.com.

took over to set regulations, promotions, and development of the sport. A recent article in the *New York Times* by McMillan states that approximately 600,000 people participate in skyrunning worldwide, and in 2015 there were 75,000 entrants in the Skyrunner World and National Series. The majority of participants are male, but nearly 20% are female.

Skyrunning can take place on trails, but participants also cross glaciers and scale rock faces in events that can range from 2 to 50 miles in altitudes over 6,500 feet. Broken limbs and abrasions are common. Since 1992 there have been 7 deaths during skyrunning events. McMillan highlighted one well-known athlete in her story: Kilian Jorent was born in Spain, and his father was the guardian of a hut in the mountains. At age 13 he took part in a race between mountain huts and at 19 won his first Skyrunning World Series. He has won more than 80 races and is now preparing for a speed record on Mount Everest. Amateur climbers may take up to a month to scale the peak, whereas Jornet expects to complete the course in 24 to 48 hours. He intends to do it alone and without the help of oxygen or ropes.

McMillan, K. (2015). Racing to reach the sky. *New York Times*, August 2.

## Physical Activity Is Important—But So Is Sleep

Many coaches like to know what their athletes are doing on and off the field. They are concerned about what they eat, what sort of activities they engage in, and more recently how they sleep. A recent *Wall Street Journal* article highlights the steps that some coaches take, including an extreme one by newly appointed head football coach Pat Narduzzi of the University of Pittsburgh. While some coaches assign monitors to the dorm rooms, Narduzzi decided to read bedtime stories.

For his part, Narduzzi took a more old-fashioned approach toward ensuring that his players got the daily nine hours of sleep that

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# Short Shots

experts recommend for college athletes. He decided to tuck them in. The rule is lights out at 10:30 and then a bed check at 10:45. However, he cannot regulate what they do throughout the night and finds that some athletes are posting on social media in the middle of the night. Encouraging athletes to put down their electronic devices is difficult. Other coaches have taken direct measures of sleeping behaviors. A 2010 study at Stanford found that players who attempted to sleep for 10 hours per night ended up running faster and felt less fatigued.

The Canadian Sport Institute published a report covering a host of topics (e.g., recovery, length, quality, insomnia, apnea, movement disorders) and also has recommendations for athletes: http://canadiansportforlife.ca/sites/default/files/resources/Sleep_Recovery_Jan2013_EN_web.pdf.

Clegg, J. (2015). College football wakes up to a new statistic: Sleep. *Wall Street Journal*, August 20.

Photo credit: www.conqasport.com.

Photo credit: www.flickr.com.

## No Seventh-Inning Stretch

Often called pesis, the game of pesäpallo is the national game of Finland and was developed in the 1920s by a Findlander named Pihkala after a visit to the United States. This is a fast-moving game (check it out on YouTube), and the biggest difference between the American game of baseball and pesäpallo is the pitching. The pitcher stands right beside the batter and tosses the ball vertically in the air to a batter who rarely misses a toss—so the game is fast moving. After a hit, the batter runs to the left (about halfway to U.S. third base), then runs diagonally across the field to what Americans knows as first base, then back to third and finally home. Some players reportedly cover up to 10K in one game. People of all ages and skill levels play the game, and it is run primarily by volunteers. It was a demonstration sport in the 1952 Olympics in Helsinki but seems to have remained a home sport.

Costa, B. (2015). What Finland can teach America about baseball. *Wall Street Journal*, July 9, 2015.

# Remembering Dick Schmidt

*Dick Schmidt, one of the leaders in our field, passed away on October 1, 2015. Following is his own description of his life as well as a memorial of Eight Bells, which is a traditional honor in the yachting world.*

Richard Allen Schmidt would like to be remembered for these things: He was third team All-American in rings in 1962. He was an avid competitive sailor in numerous classes of boats, winning championships in the Seashell class, followed by the Windmill class, Snipes, and Schock 35s. He completed 9 marathons and numerous other long-distance running races. He was professor emeritus at UCLA in psychology, earlier in kinesiology. He mentored many PhD students during his long academic career. He authored four textbooks, one of which continues to be the premier graduate-level text. He published numerous peer-reviewed research articles, including the Schema theory published in 1975, which earned him a Citation Classic award and resulted in his receiving the Distinguished Scholar Award presented by his academic research group. He received two honorary doctorates from the Catholic University of Leuven, Belgium, and the University of Joseph Fourier in Grenoble, France. In the late 1990s he joined Failure Analysis Associates, a firm specializing in courtroom testimony. In 1998 he started Human Performance Research to offer consulting in human performance as an expert witness.

He was born on March, 1941, in Evanston, Illinois. He is survived by his wife, Gwen Gordon, his brother, Craig Robert Schmidt, and his two sons, Michael Richard Nova (Drina Boban) and Jeffrey Price Schmidt (Sarah Walz), and his grandchildren, Julia and Zoe.

He died October 1, 2015, after a long battle with neurological degenerative ailments, CBD (cortical basal ganglia), PSP (progressive supranuclear palsy), and APD (atypical Parkinson's disease). Or, as he would say, he died of TLAs (three-letter acronyms).

**Eight Bells for Dick Schmidt**
www.sailingscuttlebutt.com/2015/10/07/eight-bells-dick-schmidt

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## Daily Activities Influence Sleep

work and childcare. Compared to no activity, household work and childcare was only slightly less likely to result in short or very short sleep times. People who reported that category as their primary source of activity were actually slightly more likely to sleep for periods of nine hours or more.

But compared to walking, the results were clear. Those engaging in household work and childcare were nearly 1.5 times as likely to get less than four hours of sleep per day. They were also more likely than walkers to sleep only five to six hours or more than nine hours.

Grandner has some thoughts on these results: "I hypothesize that individuals getting the majority of their physical activity from these are probably more likely to feel stressed or overscheduled and may have difficulty finding time for sleep," he said. "Not that they cause worse or less sleep—just that they are correlated." Researchers say the point is that different kinds of physical activity had different effects on sleep.

The research did not examine why that might be, but Grandner said it is a topic he hopes to explore further. Whether or not the intensity of the physical activity had an effect on sleep habits, for example, is a complicated question. "The issue of intensity is a complex one when it comes to sleep," Grandner said. "Some evidence from other research shows that some intensity is required for achieving health benefits, but very high-intensity exercise might be related to worse sleep, especially if it occurs at night."

Grandner and his team of researchers presented the data at an annual meeting of sleep researchers in June. He said he plans to publish a full paper on the research soon. He said the next step is to look at the effects on sleep quality and determine whether the data are more than just a correlation. The takeaway for now, according to Grandner, is fairly simple.

"Sleep is an important pillar of health, alongside diet and activity, and these three are all related to each other," Grandner said.

Study maps types of physical activity associated with better sleep. *Science News*, June 4, 2015.

> Lack of activity destroys the good condition of every human being, while movement and methodical physical exercise save it and preserve it.
>
> - Plato

Continued from page 1

## Physical Activity May Not Promote Weight Loss

interventions. They claim changing the food environment is critical and dispelling the myth relating physical inactivity to obesity must go. They claim, "You cannot outrun a bad diet."

Malhotra, A., Noakes, T., Phinney, S. (2015). It is time to bust the myth of physical inactivity and obesity: You cannot outrun a bad diet. *British Journal of Sports Medicine,* April 22.

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## AKA and the Future of Kinesiology in Higher Education

other professional organizations about potential affiliation with the AKA. Many in the AKA are making meaningful advances in support of and recognition of the field of kinesiology.

Given the collective efforts of the AKA, what does the future hold for kinesiology in higher education? Before I share my perspective on that question, let me recommend you go back to the future by reading John J. Burt's chapter Three Dreams: The Future of HPERD at the Cutting Edge from the 1987 book edited by John D. Massengale, *Trends Toward the Future in Physical Education.* In that chapter Burt noted that HPERD and kinesiology might have a rather narrow and blurry collective vision. He then illustrated three threats to a blurry field as bad dreams. The first is being subpoenaed to defend the field to an officer from the Removal of Academic Waste agency on violations of the Code of Academic Usefulness. The second is a stinging discussion with a keynote speaker at a multidisciplinary conference about the neglect of the profession, meaning, and personal connections of kinesiology departments. The last dream is the receipt of a sad collective letter from our fellow citizens who feel like failures at physical activity and exercise because the field has neglected human temperament, diminishing the role of pleasure and joy of movement.

Here we are almost 30 years later and the situation is somewhat similar. However, I have several reasons to be optimistic about the future of kinesiology. First, departments of kinesiology have not faced another widespread wave of elimination or dissolution in higher education, although we have lost some doctoral programs. Most kinesiology departments have in fact made regional- and institution-specific adjustments that have strengthened their status at their universities. Second, funding agencies and governments are becoming more and more interested in high-quality, evidence-based professionals after learning that low-cost alternate certifications do not lead to high-quality outcomes or long-term professionals in careers. Third, I believe there is considerable interest in kinesiology about advancing knowledge and practice in helping people enjoy and maintain motivation and passion for physical activity. Many kinesiology faculty are part of large, systems-based initiatives to promote physical activity for both public health and personal fulfillment. We just need to continue to tell the story of our best graduates and research.

The AKA is here to continue to tell these success stories and promote the field in the world. The AKA has a talented and motivated team of staff, executive committee, board, and committee members pushing our field forward. We have outstanding incoming leadership with President Dr. Mary Rudisill and President-Elect Dr. Tom Templin. Dr. Phil Martin will be coming back on board to co-chair the 2017 Workshop Planning Committee. It certainly is an exciting time to be promoting kinesiology through the AKA. Please join us in this mission by ensuring your department is a member institution, serving on an AKA committee, and continuing to recognize your kinesiology peers who make outstanding contributions to the discipline and professions.

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## Exercise and Asthma

physiology," Carvalho said. The effects of exercise on bronchial hyperresponsiveness remain controversial, the paper acknowledges, and regular activity as a treatment for asthma would be somewhat of a shift in conventional thinking.

"The message from our study is, in the past, most physicians believed that exercise could not be performed by asthmatic patients," Carvalho said. "On the contrary, our study shows that exercise has important benefits for asthmatics. However, [patients should] take their medication as prescribed and, after that, they have to begin to perform aerobic exercises—walk, run, dance, biking, whatever they enjoy."

Carvalho said his team still has a couple of questions. First, they wonder if there is a better exercise that can further reduce symptoms in asthmatics. And they are still looking for other nonpharmacological treatments for people who have persistent asthma symptoms.

Celso R.F. Carvalho. (2015). Aerobic training decreases bronchial hyperresponsiveness and systemic inflammation in patients with moderate or severe asthma: A randomised controlled trial. Thorax doi:10.1136/thoraxjnl-2014-206070

Reported by Lisa Rapaport in Health, July 17.

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## Editor's One Cent's Worth

- Increase electronic links.
- Increase marketing of *KT* to boost the readership.

Send your ideas to kintodayaka@gmail.com.

### Example of Sharing Kinesiology Today

This example is provided by Vince Liardi, lecturer, Intro to Kinesiology class at CSU East Bay.

I've been able to use some of the sections in *KT* in an interactive manner. By assigning each section a numerical station, small groups of students (3 or 4) can cycle through the stations with 90 seconds to read each article. After each group has read a total of 10 articles, without taking notes, a Jeopardy-style game ensues. Relevant questions are integrated into a PowerPoint and each group is tested on their ability to recall practical applications and take-home messages from the *KT* content. Students are enthusiastic throughout, showing that learning kinesiology content in the classroom can be a fun and fulfilling experience.

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## Can You Do It Again?

This comprehensive project may suggest some ideas about how we approach research in kinesiology. Of course, everyone wants to produce a new idea and present and publish it so everyone can see how creative and innovative questions can be addressed. However, how many ideas do we put forth as fact or likelihood that have not received repeated replications? I have often expressed the idea that for many master's students a first project might be to try to replicate a classic experiment or study in our field. This does not mean they do not need to read the literature, nor does it mean that they will not learn the research process. If the original authors are still around, master's students might be able to interact with the authors to clarify procedures, and the original authors might find their procedures were not written up as clearly as they had first thought. Then students need to critically determine whether they replicated the findings and suggest why this may have occurred. Sounds like a reasonable approach to me. Maybe they can even try to replicate a study from their own advisor.

-PMc

Corresponding author: Nosek@virginia.edu. Estimating the reproducibility of psychological science. *Science,* 349, No 6251. DOI: 10.1126/science.aac4716, August 2015.

# AKA News

*Amelia Lee, Executive Director*

More and more kinesiology-related departments and schools are taking advantage of the extensive benefits offered by the AKA. The Leadership Workshop offered each year has become a unique platform for networking and collaborating with colleagues from other universities on issues vital to our field.

**2016 Leadership Workshop**
Innovation and Entrepreneurship in a Time of Shrinking Budgets
January 30-February 2

**2016 Preworkshop Symposium**
Conducting Effective Faculty Evaluations
Facilitator: T. Gilmore Reeve
January 29-30
Omni San Antonio Hotel at the Colonnade

The AKA continues to offer professional development opportunities with free online webinars that feature top scholars in kinesiology sharing their expertise on a host of topics in the field. Take advantage of these e-learning opportunities that are intended to assist our membership in the advancement of their departments, thereby advancing the field of kinesiology.

**Upcoming AKA-Sponsored Webinar**
February 10, 2016
Russ Carson
Promoting Comprehensive Physical Activity in Schools

The American Kinesiology Association, with Wojtek Chodzko-Zajko as our Board of Directors member, is participating as a member of the National Physical Activity Plan Alliance (NPAPA). The NPAPA has been active in supporting the Surgeon General's Call to Action on Walking that was launched in Washington DC on September 9, 2015. The AKA is also actively assisting with the forthcoming revision of the National Physical Activity Plan. In these ways Wojtek and the AKA are helping to advance the physical activity agenda in the nation.

MERLOT II Multimedia Educational Resource for Learning and Online Teaching

AKA is in the process of making multimedia educational resources for learning and online teaching (MERLOT) about the field of kinesiology available. We are in the early stages, and as progress is made an editorial board will be established and the MERLOT Presidential Committee will continue to work on cross-listing and adding more content.

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