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How Canada Supports Sport and Funding for Sport Research

By Penny McCullagh, Ph.D., KT Editor

In the Winter 2017 issue of *Kinesiology Today*, I wrote an article titled "How Do I Get Funding for Social Science Research in Sport: Move to Europe!". Well there are governmental agencies in other countries that also support research focused on sport. In this article, I will tell a little about the Canadian system.

You can go to the Government of Canada website and learn about jobs, immigration, travel, business, benefits, health, taxes and more. But for individuals in kinesiology one of the sites that is very interesting directly relates to sport. Under the More tab you will see a section called Culture, History and Sport. https://www.canada.ca/en/services/culture.html

We learn from this site that "Canada is a leading sport nation. How sport is practiced in Canada today is influenced by a number of factors, including our four seasons, and our geographic and social diversity. For example, lacrosse, our national summer sport, has been played by Aboriginal peoples for close to a thousand years. Hockey, our national winter sport, was invented in Canada in the 1800s, and basketball was invented by Canadian Dr. James Naismith in 1891 to condition young athletes during the winter. Today, soccer is the most popular sport among Canadian children. Our sport system allows Canadians from all segments of society to get involved in sport activities at all levels and in all forms of participation. From childhood to adulthood, sport is part of a healthy, active lifestyle."

We can see from reading this statement that the government of Canada recognizes the importance of sport in contributing to a healthy and active lifestyle. Not only do they support sport vocally, the government also provides funding to support sport and sport research. As you can see from the graph below "The Government of Canada

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is the single largest investor in Canada's sport system, providing funding for initiatives to support our high-performance athletes and to promote sport participation among all Canadians, from playground to podium." Sport Canada's goal is to provide sport opportunities for everyone through funding to national organizations, programs, and policies.

Well I personally believe it is heartwarming to see that the government supports sport participation, it is even more rewarding especially for individuals in our field to see that government funding for research is linked to the agency that supports sport participation. In Canada, the Social Sciences and Humanities Research Council (SSHRC) hosts grant funds and have a supplemental program called the Sport Participation Research Initiative (SPRI). SSHRC and SPRI support the goals of the Canadian Sport Policy and funds doctoral students, post docs, and post-secondary affiliated researchers to conduct research, across a wide variety of disciplines, on topics related to enhancing participation and other outcomes of sport. http://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/sport_can-eng.aspx#atarget

The funds range in support from 2 to 5 years. According to the SSHRC web site, the objectives are:

1. To promote Canadian research that will develop better understanding, based on empirical evidence, of Canadians' participation in sport, in order to better inform programs and policies; and
2. To build Canada's capacity to conduct research on and related to participation in sport, specifically in the following target areas:
   - Participation: Research that supports the sound development, and increases the number and diversity, of athletes, volunteers, coaches, officials, and leaders.
   - System performance: Research that supports the effective performance of the sport system's structures, processes, and interventions.
   - Values and ethics: Research that supports and/or evaluates/monitors safe, ethical and values-based design and delivery of sport policies, programs and services.
   - Major games and events: Research that analyzes impacts on and outcomes for communities and Canadians as legacies (social, cultural, economic) of major games and events.
   - Economic and social development: Research that supports sport for development outcomes in Canadian communities.

To help achieve these objectives, all SPRI grant and award holders are expected to participate in an annual Sport Canada Research Initiative conference as a condition of holding their grant or award.

The topics above are certainly not direct-

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ed only at individuals in kinesiology but cover a wide array of disciplines that might be interested in these topics. However, it certainly does allow researchers interested in sport to direct their attention and receive funding for their research.

There is also additional funding for researchers, and students through a program called Own the Podium (http://www.ownthepodium.org/About-OTP) . Canada had three opportunities to host the world for the Olympic and Paralympic Games (1976, 1988) and then again in 2010. Canada was determined to focus on achieving ambitious performances and in 2005 started supporting sport grants. The organization is a not for profit and its largest contributor is the Government of Canada.

Canada also has another organization that offers support for sport research. The following information was derived from the Mitacs web site (https://www.mitacs.ca/en/about-mitacs) .

"Mitacs is a national, not-for-profit organization that has designed and delivered research and training programs in Canada for 15 years. Working with 60 universities, thousands of companies, and both federal and provincial governments, we build partnerships that support industrial and social innovation in Canada."

"Mitacs was founded in 1999 as a Canadian Network of Centres of Excellence, dedicated to supporting applied and industrial research in mathematical sciences and associated disciplines. In 2003, we launched a research internship program designed to increase deployment of highly educated graduates into the private sector. Open to all disciplines since 2007, Mitacs has expanded in response to industrial and university needs, including programs in research & development, management, professional skills development, and international research training. Fully independent since 2011, Mitacs remains committed to its core vision of supporting research-based innovation and continues to work closely with its partners in industry, academia, and government."

So through partnership with sports bodies, Own The Podium, the Canadian Olympic Committee, or professional teams, researchers, at all levels, can gain access to funds that support sport research.

But folks that are interested in exercise – Not to worry – there are plenty of highly competitive health-related funding sources for Canadian researchers. (e.g. SSHRC and CIHR). I have always said that you only exercise when you are not skilled enough to play sport anymore so for me it is wonderful to see support for sport research.

Personal Disclosure:

I am Canadian. I was born and raised in Canada but moved to the US in 1970 to attend school, but my heart remains in Canada, so recognize my personal bias in this story. On July 1, Canada celebrated its 150th anniversary. You can find out more about this on the Culture, History, and Sport link shown above.

I would like to thank my Canadian colleagues, Gordon Bloom (McGill University), Jean Cote (Queen's University), and Nikki Hodges (University of British Columbia) for making some suggestions and comments on this article.

President's Column

Do We Deserve a Place in the Sandbox?

By Thomas Templin, AKA President

Tom Templin

I hope this column finds you well after the close of another academic year at our institutions. It's hard to believe that I will be entering my fortieth year in the professoriate after a long tenure at Purdue University and now at my alma mater, the University of Michigan. Of course, over the years I have witnessed a great deal of change within our discipline – change that has reinforced the importance of Kinesiology to our country and world. The amazing advances in our research, teaching, and service have positioned kinesiology well into the future. Nonetheless, I realize that we may have a ways to go on some of our campuses to leverage the kind of support and respect we desire – to eliminate any sense of marginalization that has bedeviled our field over time.

One of our keynote speakers at our 2017 workshop offered a challenge that if kinesiology wants to play in the sandbox with other disciplines and scholars of note, we need to bring the requisite expertise and motivation to deserve a place in the sand. While some found that remark offensive and while we know that many scholars rightfully deserve a place in the sandbox, the reality is that we have the ongoing challenge to make many others aware of the substantial sandcastles we have built and how we can build sandcastles alongside of others – that we deserve to be there.

I feel confident that through continued achievements in our various endeavors, there will be a day where kinesiology is seen as a bona fide member of the academy on the majority of our campuses. We won't be the victims of benign neglect, rather we will be integral members of the academic mission. We simply have to keep working hard and provide the "proof in the pudding" that reinforces the fact that we deserve a place in the sandbox with our colleagues across campus. We need to produce the kind of products through external funding, high level publication, honors and awards, and service and outreach activities that merit recognition and esteem. We need to destroy stereotypes and implicit biases of others that may link kinesiology to other's visions of "gym class" or images of "jocks and socks".

While we can achieve this through our own singular disciplinary efforts, it will be extremely important to collaborate at a very high level with scholars from other disciplines in a variety of interdisciplinary activities as well. By joining forces with our colleagues from other fields, recognition of the wonderful contributions we bring to others will be better understood. My own university invests in such collaborations on a very high level through its M-Cubed research program (http://mcubed.umich.edu/about) and other internal grant opportunities as scholars from different disciplines receive substantial seed funding to explore questions that cut across disciplinary boundaries through basic and applied research. This activity helps to put "another face" on our identity and enhances the image of kinesiology at the University of Michigan as we work side-by-side with some of the leading scholars in the world. With that, I believe kinesiology has leveraged both moral and monetary support that has been somewhat

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unfamiliar to me throughout my career.

As leaders on our campuses, we need to promote our important role in society and as such, on our very own campuses. Provosts, deans, department heads, faculty and staff, students, and even our family and friends need to understand, recognize, value (and maybe even be attracted to) kinesiology and the various activities that contribute to our campuses and beyond. The questions are: Does anyone even know what you do? Do others have any idea about the marvelous contributions you make to others? Do they see how you could join forces with others to explore research questions or to offer interdisciplinary classes or outreach opportunities that cut across disciplines? Do they value us beyond the growing number of students (and accompanying revenue) entering our programs?

As I enter year forty in the academy and move forward in this important role with AKA, I shall continue to sing our praises and advocate for our rightful place in the academy. Please join me in providing the evidence so that my advocacy has merit. Show others that we belong in the sandbox, not outside it. KT

CONFERENCE THEME: *Promoting Quality Undergraduate Programs in Kinesiology*

Undergraduate programs in Kinesiology are undergoing a resurgence in the U.S. as enrollment numbers are at an all-time high and programs are being transformed relative to various program emphases and student outcomes. The status and future of undergraduate programs will be addressed through a variety of topics at the 2018 Leadership Workshop entitled, "Promoting Undergraduate Programs in Kinesiology". Through keynote speakers, lead speakers, brief podium presentations, panel discussions, round table and poster presentations, the program will explore ways to create and foster excellence in Kinesiology.

CALL FOR PRESENTERS:

The AKA Workshop Committee surveyed the AKA membership earlier this year for topics of interest related to promoting undergraduate programs in Kinesiology for our 2018 AKA Leadership Workshop. We had a great response from the membership and have identified 8 potential topics to be addressed at the workshop. These potential topics are listed below for your consideration.

The 2018 AKA Leadership workshop will have specific opportunities for chairs or departmental representatives to share and demonstrate innovative approaches to undergraduate education that have been developed at your respective institutions. At this workshop, we are considering a variety of presentation formats, including podium, panels, posters, and round tables to promote rich discussions relative to the conference themes. We would like to invite you to contribute to this year's AKA Leadership workshop. Please note that conference registration fees differ for non-members (member fees are $400, while non-member registration fee is $900).

Additionally, for those who have papers accepted for presentation, we would also like to invite you to consider developing your presentation topic into a scholarly manuscript for the themed edition of Kinesiology Review. Presenters are not required but strongly encouraged to contribute to the special edition of KR. Once presenters have been selected, we will identify those presenters who want to publish their presentations. We may invite you to co-author a manuscript with other speakers within a similar theme category at the workshop. APA guidelines will be strictly adhered to in the development of each manuscript.

Workshop Topics

- Innovative approaches to teaching
- Future of kinesiology curriculum and majors
- Teaching undergraduate students of today - millennials
- Undergraduate research
- Undergraduate service learning
- Promoting the AKA core curriculum
- The delivery of undergraduate teaching – tenure track, lecturers, adjunct, and graduate students
- Other topics specific to promoting quality undergraduate programming

To apply, please visit the AKA website, complete the application form and forward to Program Chair, Thomas Templin by September 1st, 2017 (ttemplin@umich.edu). Please email Dr. Templin with any questions. Presenters will be notified of acceptance by October 15, 2016.

Don't Play Just One Sport When You Are Young

A recent editorial in the British Journal of Sports Medicine debunked early sport specialization and suggested it was time to reshape the youth sport experience. With such high pay-off for participation in elite level sport, it is not unusual to find parents pushing to be sure their children get the right experience so they can move to the top of their field and gain huge financial and personal accolades including college scholarships and professional contracts.

Some of the horror stories remind me of an example I used when I taught on the topic of youth sport in my sport psychology classes. Years ago magazines and newspaper articles often wrote about Todd Marinovich.

In February of 1988, Sports Illustrated published an article, titled "Bred To Be A Superstar", that discussed Todd's unique upbringing under his father who wanted to turn his son into the "perfect quarterback". The article declared Todd "America's first test-tube athlete", and discussed how his mother encouraged his interest in art, music, and classical Hollywood cinema while banning cartoons as too violent. His father assembled a team of advisors to tutor him on every facet of the game. The article stated that:

"He has never eaten a Big Mac or an Oreo or a Ding Dong. When he went to birthday parties as a kid, he would take his own cake and ice cream to avoid sugar and refined white flour. He would eat homemade catsup, prepared with honey. He did consume beef but not the kind injected with hormones. He ate only unprocessed dairy products. He teethed on frozen kidney and liver. When Todd was one month old, Marv was already working on his son's physical conditioning. He stretched his hamstrings. Pushups were next. Marv invented a game in which Todd would try to lift a medicine ball onto a kitchen counter. Marv also put him on a balance beam. Both activities grew easier when Todd learned to walk. There was a football in Todd's crib from day one. "Not a real NFL ball," says Marv. "That would be sick; it was a stuffed ball.""

Well we cannot infer cause and effect from his treatment as a child, if you look up Todd today his life did not go so well. He was highly recruited by many universities, played quarterback at USC, played for a time for the LA Raiders and then went off to play football in Canada. He got heavily into drugs, suffered many arrests and went through many rehabilitation programs.

With such high reward for elite performance, many parents are concerned that if you don't specialize early, you won't be successful. However, data presented in the article by DiFiori and colleagues debunks this myth. They review research evidence that suggests that early specialization is

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not a pre-requisite for elite performance, that early specialization may prevent youth from developing transferable athletic skills and may lead to injury and burnout. The authors of the article came from a variety of expertise backgrounds and were commissioned by the National Basketball Association to help develop some guidelines for youth participation that can be found at https://youthguidelines.nba.com/.

Jean Cote one of the authors suggested that "the main point of the guidelines is to make adults involved in sport realize that youth should be involved in a diversity of sport, play activities, and that investment in basketball should be gradual as the children get older". KT

-PMc

Looney, D.S. (1988). Bred to be a superstar. *Sports Illustrated,* February 22.

DiFiori, J.P, Brenner, J.S., Comstock, D., Cote, J., Gullich, A, Hainline, B., & Malina, R. (2017). Debunking early single sport specialization and reshaping the youth sport experience: An NBA perspective. *British Journal of Sports Medicine, 51(3),* 142-143.

Check These Out!

Female Participation in Sport Increases in Australia
Female participation in sport has tripled in Moreland since 2009 thanks to an innovative policy from Council – the first of its kind in Australia. Click Here

First Black Woman to Win an NCAA Division I Singles Title, and She Had No Idea
"I didn't even realize it until my sister said something to me a couple days later," Michigan sophomore Brienne Minor said of becoming the first African American woman to win an NCAA Division I tennis singles title last month. (Richard Hamm/ Associated Press) Click Here

She is 101 years Old and Still Running
Man Kaur from India won a gold medal in the 100 meter race at the World Masters Game in Aukland, New Zealand. Not bad for someone who did not start running until she was 94! Click Here

Check Out Program for 7th International Working Group on Women in Sport Conference to be held in Botswana, May 17-20, 2018 http://www.iwg-gti.org/

7th IWG World Conference
On Women and Sport,
17-20 May 2018
Gaborone, Botswana

Sports Analytics – Yes Sport Science Can Contribute!

I was searching around the web looking for stories related to sport, exercise, and physical activity and new technological advances. In doing my search I came across an interesting conference that had not reached my radar in the past. The conference is called the MIT Sloan Sports Analytics Conference and this year was the 11th meeting.

http://www.sloansportsconference.com/

The Massachusetts Institute of Technology (MIT) claims to have initiated one of the first MBA programs with a sports analytics class. Then in 2007 Daryl Morey and Jessica Gelman founded the conference. Morey holds an MBA from the MIT Sloan School of Management and Gelman has a psychology degree from Harvard and also attended the Harvard Business School.

I examined the program from this year's conference and saw a host of topics related to business and analytics and statistics. I also noted the conference is presented by ESPN so I am sure has much greater funding than most conferences we attend in kinesiology. I found a host of interesting topics on the agenda related to how analystics are used in sport. However, as I scrolled down the list the topic that caught my eye was SPORTS SCIENCE: THE NEXT FRONTIER. Other topics on the agenda included:

- Sport Science: Extending the Athlete's Peak Performance- (Sport Science Track)
- Sports Science: Performance Analytics (Presented by Catapult)

I was certainly interested in who might be the experts contributing to these sessions on Sport/Sports Sciences. I found that some folks came more directly from a business background, some were pursuing advanced degrees in our field, but very few had received advanced degrees in our field. Since topics on the agenda span from the humanities (ethics), to the behavioral (motivation) to the life sciences (physiology and biomechanics) it might behoove individuals who are interested in sport – especially professional sport which is the focus here – to search out opportunities to provide knowledge to the NEXT FRONTIER. KT

-PMc

Masters Athletes Play On!

By Penny McCullagh, KT Editor

In years past when defending my position to study sport I used to say – "People only exercise when they are not good enough to play sport anymore". Well there is mounting evidence that competitive sport participation has increased in seniors. Some are new to the process and some are athletes that just carry on. Rebecca Clay recently wrote a review published in the Monitor on Psychology by the American Psychological Association and reviewed research documenting the motivation of older athletes and how sport participation can enhance well-being.

The National Senior Games Association (http://nsga.com) was organized in 1985 by a group of 7 men and women. The goal was "to promote healthy lifestyles for adults through education, fitness and sport". They planned their first national games in 1987 and 2,500 athletes participated under the name National Senior Olympics Organization. In 1990 the organization changed its name to National Senior Games Association after the National Olympic Committee disagreed with the title. "The organization continued to name its signature event the National Senior Games - The Senior Olympics and, through a grandfather clause, States that were using the name Senior Olympics at the time of the USOC agreement were allowed to continue that privilege." According to the web site the highest participation was in 2007 with 12,000 athletes and then attendance in 2015 was 9,989 in 19 sports. The games are designed for individuals over 50 years of age and are held every two years. In the years in between, state championships are held as qualifying rounds.

Photo credit: MSU College of Education

Caption: Deb Feltz and other senior competitors at the 2009 National Senior Games in Palo Alto. Deb finished first in her race.

Clay did an excellent job in highlighting some of the research conducted on older athletes. She cites evidence from some qualitative psychological studies that indicate that older athletes "don't feel old" and felt sport helped them delay or slow down the aging process. She also cited evidence from neuroscientists that indicated that high intensity activity may help slow down cognitive aging.

Some sports hold events for adults younger than 50. For example, US Masters Swimming (http://www.usms.org/reg/) has about 70,000 members across the nation and for this group Masters means anyone over 18 years old. USMS hosts two national events each year – one for long course and one for short course. There are also international competitions.

One study by Dionigi and colleagues interviewed 44 competitors (56 to 90 years old) from the World Masters Games and after analyzing the qualitative data found

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that four main themes emerged:

- "There is no such thing as getting old" (avoid old age)
- "Keep moving" (fight aging)
- "Fun, fitness, friendship and competing" (redefine old age)
- "Make the most of your life with the capabilities you still have" (adapt and accept)

When I started to write this article I thought of a colleague who I knew had done some recent running competitions but I had no idea the extent of her participation. I have known Deb Feltz as a colleague for nearly 40 years. Dr. Feltz served as department chair in the Department of Kinesiology at Michigan State University (a member of the American Kinesiology Association) for 23 years and recently returned to being a professor. Her specialty is in sport and exercise psychology with her main area of research in self-efficacy. When I researched her on the web, I found that she has had extensive competitive participation as a Masters running athlete and as well as conducting research on motivations in masters athletes in addition to her well known research in self-efficacy. I decided I would ask Deb a few questions so she could share some of her personal experiences.

1. Please tell us a little about your experience in running over the years. Did you compete in high school and college? Tell us a little about that.

I was i*n high school prior to Title IX, and thus had limited choices to participate in high school sports. I told the track coach that I wanted to try out for the boys track team (the only track team for my school). He told me that I was not allowed but that he would let me practice with the boys. I quickly realized that what he really wanted was some help running the track meets and wasn't interested in coaching me. When I went to college, I competed for Colorado State University in the hurdles and then at SUNY at Buffalo in the 400m. We had very few track meets. There were no real opportunities after college, and I was busy with graduate school at Penn State. So, I just ran in a few road races when I could. And, when I moved to Michigan State University, I raced in some road races just for fun, but I wasn't really a distance run*ner.

2. When is the first time you competed at a National Senior Games and tell us a little about your history of participation at the games.

My first National games were in 2005. I found my way into the NSG arena through a former doctoral student of mine, Rodney Wilson (Ph.D' 2000). Rodney's dissertation examined the sources of sport confidence in master athletes, including senior games competitors, which we eventually published [Wilson, R. C., Sullivan, P. J., Myers, N. D., & Feltz, D. L. (2004). Sources of sport confidence of master athletes. Journal of Sport & Exercise Psychology, 26, 369-384.]. When I turned 50, Rodney contacted me and challenged me to give track a try. He was already a master athlete in the sprints. I thought I was a sprinter and trained on my own for the 100m and 200m. After my first Michigan Senior Olympics, I found a coach, who convinced me I should add the 400m to my events. So, in 2005 at Pittsburgh, I didn't even make it to the finals in the 100m, I placed 5th in the 200m, and I placed 4th in the 400m. It was a humbling experience. These were some fierce competitors, but I was determined to improve my fitness and training. My excellent coach saw that I was really a middle-distance runner and gently coaxed me to drop the sprints and emphasize the 800m and 1500m. My times kept improving, and I was medaling

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regularly. But now, that is starting to change, and my times, as are those in my age group, are slowing. The biggest part of competing, however, is the friendships that develop over time.

3. You are a recognized scholar in Kinesiology. For example you were recently named as a Distinguished Scholar of the North American Society for the Psychology of Sport and Physical Activity (www.naspspa.com) and a member of the National Academy of Kinesiology (http://www.nationalacademyofkinesiology.org/). Given that you have extensive knowledge in the field, what do you think of the research that is being conducted in the area of senior athletes and do you see some distinct areas that could use more attention.

I think the research in this area is still in its inf*ancy. Much of it is descriptive. I would like to see more cross-disciplinary work with researchers in exercise physiology, sport psychology, and cognitive-motor researchers. As one reaches one's performance limitations, how does that affect one's motivation? What are the major injuries for these participants, and what are the best rehabilitation therapies to help these athletes recover and stay motivated. I think more qualitative research methods may be necessary because this population group is relatively small compared to let's say youth sports.*

4. Do you rely on the research to influence your own performance?

Yes, most definitely! Some of my most recent research on group dynamics and social comparison in training partners was informed by my training partners and the results of that work informs how I train with them.

5. How has senior competition influenced you personally?

Senior competition, whether it has been in soccer (I did that for a while) or track, has provided me an outlet to develop long-time friendships. It has given me an identity outside of academia and has become part of my self-concept. It also has provided me with inspiration. When I see competitors who are in their 90s giving their all to their performances and also having a great time doing it, I want to be able to be like them.

See this website for Deb Feltz - Rankings

Clay, R. (2017). Aging in motion. Monitor on Psychology, April, 46-53.

Clay mentions some excellent photos by Rob Jerome that are displayed at:

www.apa.org/moinitor/digital/olderathletes.aspx

Dionigi. R. A., Horton, S., & Baker, J. (2013) Negotiations of the ageing process: Older adults' stories of sports participation, Sport, Education and Society, 18:3,370-387.

To link to this article: http://dx.doi.org/10.1080/13573322.2011.589832

Marathoner Breaks Time Barriers, Both in Running and in Age

By Patrick Wade, KT Staff Writer

Four hours can be a daunting goal for a lot of recreational marathoners of any age. Now imagine breaking that time barrier at 85 years old. That is what Canadian octogenarian Ed Whitlock did last year, and his lifetime of performance can teach us a lot about what exercise can do for you in old age.

It is no secret that exercise has a lot of benefits as people get older. Physical activity can slow muscle wasting and degeneration and some studies show it can actually keep your mind sharper into your later years. Whitlock, a running legend who passed away earlier this year as a result of prostate cancer, took that to an extreme in October 2016 when he became the oldest person to finish 26.2 miles in under four hours by crossing the finish line at the Toronto Waterfront Marathon in 3 hours, 56 minutes, 34 seconds. And it was not even his most acclaimed race. Widely considered his best performance, Whitlock finished the same marathon in 2004 at age 73 in 2:54:48.

Photo Credit: Wikkipedia

Ed Whitlock, legendary marathon runner

"I believe people can do far more than they think they can," Whitlock told The New York Times in December. "You have to be idiot enough to try it." Whitlock was the perfect example of simplicity – he did not buy in to the fancy running gear, personal trainers, magical diets or running schedules. His training runs were regularly 3 or so hours at a time, in 5-minute laps at a cemetery near his home in a suburb of Toronto.

According to The New York Times, Whitlock underwent a battery of physiological tests at McGill University in 2012. His VO2 max score – a measure of his body's ability to consume oxygen – was 54. A typical 80-year-old in good health may have a reading in the 20s, compared to elite athletes with readings in the 90s. For a then-81-year-old, a VO2 max of 54 was an exceptional score, seemingly unsurpassed by any of Whitlock's fellow octogenarians. Whitlock also showed that he retained muscle in much higher numbers that his peers.

Whitlock is an example of somebody who bucks the trend of aging, according to Dr. Michael Joyner of the Mayo Clinic. If you look at most sports, the world record times are generally set by people in their prime in the 20s, and the times do not decline much until those athletes reach their mid- to late-30s. After that, performance starts to decrease by five to seven percent each decade, Joyner told Kinesiology Today. By the time an athlete reaches age 60 or 70, performance decreases really start to take off.

While Whitlock was an enormously talented athlete for sure, he was maybe not a marvel of modern science, Joyner said. Rather, he is the answer to the question of "what happens if you take someone with a high baseline and decline at a slow rate," Joyner said. "I think any of these sorts of achievements help us understand what the upper limits of human aging might be," Joyner said.

And he is a role model of what younger folks might do to take care of themselves

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in the decades to come. In fact, Joyner makes it sound pretty simple.

"If people take care of themselves, don't get fat, don't smoke, sort of do the American Heart Association (Life's Simple 7) and do a little extra and really work at it, there are an awful lot of people who can do a lot into their 70s and 80s," Joyner said. "Life's Simple 7" is a list of activities designed by the American Heart Association to be relatively simple, inexpensive changes any person can make to improve their health and extend life. The list: Manage blood pressure, control cholesterol, reduce blood sugar, get active, eat better, lose weight and stop smoking.

According to a Brigham Young University study, vigorous daily activity leads to an average nine-year biological aging advantage. To determine that, researchers looked at the telomere length of 5,823 adults between the ages of 20 and 84 who participated in the Centers for Disease Control National Health and Nutrition Examination Survey. Telomeres, according to the news release, are the nucleotide endcaps of chromosomes, according to a BYU news release. Every time a cell replicates, people lose a tiny piece of the endcaps, meaning the older we get, the shorter our telomeres. BYU exercise science professor Larry Tucker found that people with high physical activity levels had a nine-year aging advantage over sedentary people, and seven years over people who are moderately active.

To be considered highly-active, people had to engage in 30-40 minutes of jogging per day, five days per week. "If you want to see a real difference in slowing your biological aging, it appears that a little exercise won't cut it," Tucker said in the news release. "You have to work out regularly at high levels."How exactly exercise preserves telomeres remains unknown, however. The study builds on previous evidence that regular physical activity helps to reduce mortality and prolong life.

Whitlock certainly felt the deterioration of his body over time, telling The New York Times that, ""When you get to my age, the rate of deterioration is accelerating. I'm sure every year, every six months, make a difference. I don't seem to be able to consistently train. Whether that's a permanent situation, I'm hoping not."

But that deterioration is still relative – a four-hour marathon at age 85 puts him in the elite category. Whitlock took a much simpler pleasure in his athletic career. "The real feeling of enjoyment," he said, "is getting across the finish line and finding out that you've done O.K." KT

Longman, J. (2016, December 28). 85-Year-Old marathoner is so fast that even scientists marvel. *The New York Times.* Retrieved July 1, 2017, from https://www.nytimes.com/2016/12/28/sports/ed-whitlock-marathon-running.html

High levels of exercise linked to nine years of less aging (at the cellular level). (2017, July 03). Retrieved July 5, 2017, from https://news.byu.edu/news/research-finds-vigorous-exercise-associated-reduced-aging-cellular-level

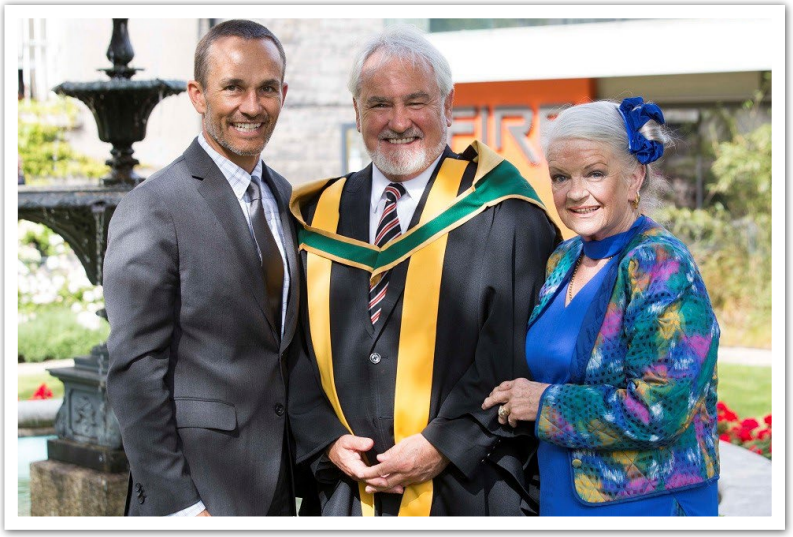
My Life Check - Life's Simple 7. (n.d.). Retrieved July 11, 2017, from http://www.heart.org/HEARTORG/Conditions/My-Life-Check---Lifes-Simple-7_UCM_471453_Article.jsp#.WWUdmYTythE

Kelso Named to Royal Irish Academy

The Royal Irish Academy (RIA) is Ireland's premier learned body. (LINK Royal Irish Academy to https://www.ria.ie/) "It was founded in 1785 and its royal charter declared its aims to be the promotion and investigation of the sciences, polite literature, and antiquities, as well as the encouragement of discussion and debate between scholars of diverse backgrounds and interests. From the outset, the academy's council was composed of eleven members representing the scientific disciplines and ten representing the humanities, led by a president. In addition to the approximately 400 members there are also more than 60 distinguished honorary members, who in the past have included Edmund Burke, Charles Darwin, Enrico Fermi, Max Planck, Maria Edgeworth, Theodor Mommsen, Albert Einstein, Erwin Schrödinger and Max Born."

J.A. Scott Kelso, Ph.D., a professor of psychology, biological sciences and biomedical science at Florida Atlantic University, recently was admitted to The Royal Irish Academy. Membership is awarded to persons who have made outstanding contributions to education and research.

An article by Kelsie Weekes in the Florida Atlantic News Desk indicated that "Kelso is one of five new honorary members of the RIA, which also included one Nobel laureate. Honorary membership is given to academics who have made a major international contribution to their discipline but do not normally reside in Ireland. Kelso, who grew up in Derry, Ireland, said he never could have dreamed this was possible. "When you look at the list of famous scientists, writers and scholars who have been elected members of the RIA, you have to pinch yourself that the list now includes you," he said.



J.A. Scott Kelso, Ph.D. (center), with his eldest son, Jason Patrick, and his sister Sandra in the garden of the Lord Mayor of Dublin.

Kelso started his career in Ireland before coming to the University of Calgary to complete his Bachelor's Degree and then continued on to the University of Wisconsin, Madison where he completed his Ph.D in the Departments of Physical Education (now Kinesiology) and Psychology. He moved on to become an Assistant Professor at the University of Iowa and was Director of the Motor Behavior Lab there before joining Haskins Laboratories at Yale and then off to Florida Atlantic University. Kelso has served on the editorial boards of many scientific journals including being the Executive Editor of the Journal of Motor Behavior from 1981 to 1988. In addition to many honors, he was recognized as a Distinguished Scholar of the North American Society for the Psychology of Sport and Physical Activity in 1999.

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Weekes reported that "Kelso currently holds the Glenwood and Martha Creech Eminent Scholar Chair in Science in FAU's Charles E. Schmidt College of Science, where he studies brain imaging, behavioral methods and dynamic modeling to understand the brain on multiple levels, from cells to cognition and social behavior. In 1985, Kelso founded FAU's Center for Complex Systems and Brain Sciences, a multi-disciplinary research and teaching unit dedicated to understanding complex behavior and answering the most profound questions of brain, mind, consciousness and behavior."

Within the movement sciences, Kelso is best known for his pioneering research on coordination dynamics. In the past 30 years or so he has been the most prominent contributor to the development of the dynamical systems approach to behavior, cognition and the brain within the fields of psychology and neuroscience. He has published over 400 research articles including the highly influential MIT publication "Dynamic patterns: the self-organization of brain and behavior." Although mainly in psychology and neuroscience, his publications span several disciplines with many of his most foundational papers appearing in leading physics journals. KT

-PMc

Weeks, Kelsie. (2017). FAU professor admitted to The Royal Irish Academy. *FAU News Desk*. June 14.

The American Kinesiology Association Search for Executive Director

The American Kinesiology Association announces a search to fill the position of Executive Director of the association. The duties of the position include:

- Overall supervision of AKA activities related to the AKA mission statement and goals
- Providing AKA leadership to promote the discipline of kinesiology and departments of kinesiology in the U.S. and Canada.
- Working with department membership and individual faculty to promote use of AKA web resources and provide AKA services such as workshops, job advertisements, graduate student advertisement, etc.
- Securing and maintaining sponsorships and fundraising activities aimed at supporting the annual AKA Leadership Workshop and other AKA initiatives
- Working to increase AKA membership.
- Supervising/overseeing the work of AKA committees
- Working closely with the Executive Committee to manage and promote AKA
- Working with Human Kinetics and the AKA Business Manager to enhance and develop AKA materials and services
- Organizing and developing the agenda for regular teleconferences of the AKA Executive Committee and appropriate committee chairs
- Organizing and developing the agenda for AKA Board of Directors meetings
- Supervising the development and management of the AKA budget
- Supervising and organizing elections for new AKA Board members and the Executive Committee
- Overseeing the AKA website development and updates

Qualifications/Experience:
Candidates should have administrative experience in kinesiology (exercise science, sport science, physical education, etc.)—preferably as a department chair/head, have a broad knowledge of the field including its history and current issues, possess good communication skills, and be committed to advancing the field of kinesiology. Candidates with a PhD are preferred. By the time of hire, the AKA Executive Director cannot be employed by another full-time position.

Salary: Appointment (40% - 50% load) and salary are negotiable.

Start Date: January 29, 2018

Review of applications will begin September 15, 2017. Submit curriculum vitae, letter of application and names of references via e-mail to: Kim Scott, AKA Business Manager, Kims@hkusa.com

Adult Fitness Program at UNO Keeps Seniors Moving

By Amy Rose, KT Staff Writer

The University of Nebraska-Omaha Adult Fitness Program was established 20 years ago as a result of the lifelong fitness mission of exercise physiologist Dr. Kris Berg. The program was cultivated from Berg's professional and personal interest in using exercise to combat chronic health conditions. He first discovered the benefits of exercise after being diagnosed with Type 1 diabetes at 12 years old. In the 1950's, the medical community was still unsure of the best way to treat the disease. "Back then doctors would tell you to take your insulin and good luck," Berg said. There were no blood glucose meters at the time to keep a check on blood sugar levels. It was mostly trial and error.

Berg began developing his own routine of exercise and diet to control his disease. Through the years, he realized how important exercise was to his health. "I believed my best way to deal with (diabetes) was through exercise," Berg said. "I knew this as a kid. It was just a gut instinct." His interests and instincts eventually led to him pursuing a degree in exercise physiology. Berg believes he has been spared the common pathologies related to Type 1 diabetes largely due to his exercise program. Unfortunately, his brother succumbed to the disease at the age of 32, which further fueled his dedication to combating diabetes. After earning a doctorate in exercise physiology from the University of Missouri, Berg began teaching at the University of Nebraska-Omaha.

Kris Berg

Berg quickly started working with the school administration and the Nebraska Medical Center to establish the university's first exercise physiology laboratory. Berg was always eager to share his findings and his personal experience with the medical community and all who would listen. "We need a team approach. It takes a little bit from everybody to make it work," he said. Soon Berg drummed up enough support to start offering his program to others with diabetes, but also began getting referrals for people with other chronic ailments, such as osteoporosis, fibermyalgia, heart conditions and arthritis, thus the Adult Fitness Program was born.

Photo credit: Provided by UNO Adult Fitness Program

Berg has written four books, more than 200 articles, and given countless speeches on the benefits of regular exercise over his 45-year career at UNO. "He is an amazing guy. He has so much energy and enthusiasm. Dr. Berg was really a pioneer in the field," says Dustin Slivka, current director of the Adult Fitness Program. Slivka took over the program when Berg retired in the spring of 2016.

Slivka says the program currently serves a large range of individuals from high-level functioning to those that need quite a bit of help with movement. According to their flier,

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The Adult Fitness Program is a supervised fitness class aimed at strengthening muscle and bone, reducing the risk of hypertension, obesity, diabetes and falling while enhancing movement quality in everyday life. But according to Slivka and Berg, it has become so much more than that for people 55 and older who are looking for a place to improve their health, increase mobility, deter aging and receive encouragement and support from their peers and the staff.

The program meets twice a week for one-hour sessions. They have a minimal charge of $36 for three months, a little extra if you need parking. "We are always moving during the sessions. Aiming to increase quality of life and increase the time clients will be able to live independently," said Slivka. With the assistance of graduate students and interns, the clients go through a series of exercises that work on their balance, fundamental movements, strength training, and also improve energy levels and cognitive function. Berg said he designed the program to keep clients moving continuously to increase their heart rates, but never reach a high excursion level or muscle fatigue that would discourage them.

Many clients keep coming to the program for years. They not only enjoy the physical health benefits, but the comradery and support from the staff, graduate students and each other. "We get a lot of cookies, especially at the holidays," Slivka said. Many people of the older generations were not encouraged to go to gyms to exercise. The Adult Fitness Program gives them a place where they feel comfortable and encouraged. The atmosphere also gives graduate students a unique opportunity to work with clients with particular needs and challenges. The older clients get close supervision from the staff and appreciate the knowledge and encouragement they provide.

Since retiring, the 74 year-old Berg continues to be an inspiration and a good example of fitness for young and old. He plays tennis regularly and is faithful to his strength training routine. "Whatever I've done, anyone can do it. They just have to find a way to enjoy it," Berg said. He is proud of the Adult Fitness Program at UNO and is happy to see it continue to thrive. He said, "It is a great program and more universities should be doing this."

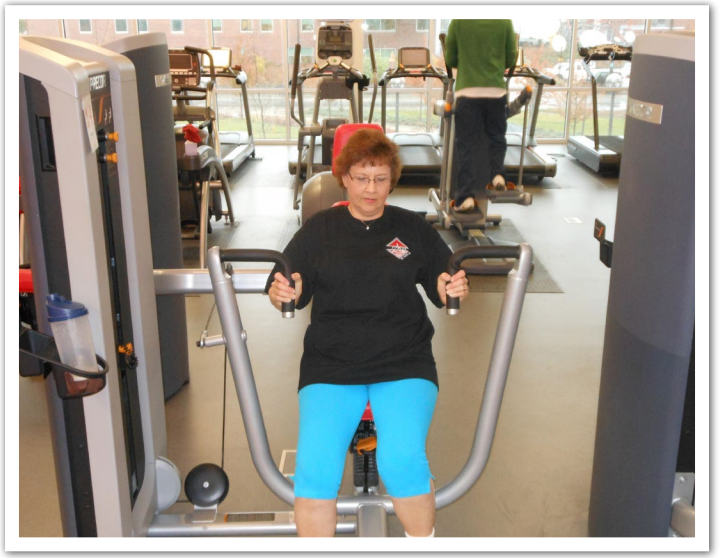

Photo credit: Provided by UNO Adult Fitness Program

Lukecart,L. (2017) A professor in motion stays in motion. *OmahaMagazine.com,* http://omahamagazine.com/articles/a-professor-in-motion-stays-in-motion

Dancing Isn't Just For Kids

A recent article in the Globe and Mail by Martha Schabas suggests there is a misconception that similar to athletes, ballet dancers peak in their 20's. She reviews the careers of three principal dancers of the National Ballet of Canada: Sonia Rodriquez (44 years old), Greta Hodgkinson (43 years old) and Xia Nan Yu (39 years old). Schabas notes similarities amongst the dancers. They are all quite versatile in their styles, have been able to perform under many different directors and have avoided major injuries – a key a longevity in dance. In interviewing the dancers, she found that the dancers were more confident now than when they were younger and felt that they could be more expressive in their performances because they had honed the necessary skills over the years. All three of the ballet dancers have had two children and noted that this contributed to even greater focus since they had less time to devote to studio hours.

National Public Radio recently did a story on Wendy Whelan who danced for the New York City Ballet for three decades. In her mid-40s she suffered an injury and was forced to retire from the ballet in 2014. She was talked in to chronically her career, injury, and recovery in a documentary called Restless Creature. She continues to dance modern. See link below for information on Whelan.

Evelyn Hart is another example of a dancer who carried on in a company until she was 49. Some would say that perhaps she stayed too long but others argue what she lost in physical capabilities did not interfere with her artistic talents that kept audiences mesmerized. She joined the Royal Winnipeg Ballet as a teenager in 1973. She was signed to the professional company in 1976 and went on to perform lead roles in most of the ballet repertoire's best-known creations. This past Spring at 61, she performed James Kudelka's Vespers at the Centennial Concert Hall in Winnipeg. I wish I could have seen this performance.

Dancing in a different form has also been shown to be beneficial to seniors. A recent article published in "Aging in Neuroscience" by Burzynska and colleagues, investigated the effect of a number of activities on the degeneration of cerebral white matter. They suggest that "this structural disconnection,

Photo Credit: Provided by Judy Wright

Competitive Senior Dancers Judy and Sam Wright

is one of the major neural mechanisms driving age-related decline in cognitive functions, such as processing speed". For their research they studied 174 older adults (60 to 79 years old) who were randomly assigned to either a dance, walking, walking

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and nutrition or active control group that did stretching and toning exercises over a 6 month time period. The dance intervention included English country dancing and Contra dancing (unlike square dancing) that was designed to not only influence physical fitness but also cognitive functioning by increasing the complexity of the dances over the six month period. The researchers collected data on a multitude of measures including cognitive, fitness, and MRI data to determine white matter integrity.

The researchers concluded that "we provided first evidence for a dance intervention resulting in increased FA (fractional anisotropy)". They report that lowered FA has been shown in a number of conditions such as Alzheimer's disease. The other exercise interventions did not have this positive effect.

In the Spring 2017 issues of Kinesiology Today (KT) there was an article about how dance in the UK was taking on Medicine and Science experts to help guide the development of dance. It was noted that dance was recognized as a form of physical activity to enhance health and well-being. If you look at the history of our field, dance was once aligned and offered in many programs. AAHPERD (American Association for Health, Physical Education, Recreation and Dance now SHAPE) used to include dance.

Perhaps it is time for us to re-evaluate and recognize that dance is indeed an important physical activity that also has a major artistic component. Let's dance. Do the twist, the stomp, the mash potato too, any old dance that you wanna do- but's let's dance.

-PMc

Burzynska, A. Z., Jiao, Y., Knecht, A. M., Fanning, J., Awick, E. A., Chen, T., Gothe, N., Voss, M.W., McAuley, E., & Kramer, A. F. (2017). White matter integrity declined over 6-months, but dance intervention improved integrity of the fornix of older adults. *Frontiers in aging neuroscience*, *9*.

Schabas, M. (2017) No time to bow out. Globe and Mail. June 3, 2017.

https://www.theglobeandmail.com/arts/theatre-and-performance/national-ballet-of-canadas-most-senior-ballerinas-on-their-danceevolution/article35189349/

Link to NPR story on Wendy Whelan

http://www.npr.org/2017/07/10/536434340/from-injury-to-recovery-a-ballerina-fought-to-retire-on-her-own-terms?utm_source=facebook.com&utm_medium=social&utm_campaign=npr&utm_term=nprnews&utm_content=20170710

Running as Medicine for Your Knees? BYU Team Says Maybe

By Patrick Wade, Staff Writer

Is running good or bad for your knees? The answer to that question may depend on which runner you ask and maybe what day you catch them. "To be honest, I didn't really know what the conventional wisdom on that subject was," said Robert Hyldahl, a professor of exercise sciences at Brigham Young University. "You hear about friends who get injured running."

But Hyldahl and his team now have developed evidence that running may, in fact, may be very good for the knees of healthy, young people, and they are looking to move forward in their research to learn more.

"The more I started to look into it after we had these findings is that, generally, a consensus is kind of building that running in young, healthy individuals is actually good for your knees," Hyldahl told Kinesiology Today.

Many in the running world take great strides to prevent injury to their knees, and a lot of them fail. Among the most common of injuries is patellofemoral pain syndrome, an overuse injury so closely associated with running that it is colloquially referred to as "runner's knee."

But take a closer look at the body of research available, says Hyldahl, and you may lean toward a conclusion that running actually has great benefits for the knee joint.

"I don't think it's necessarily a new idea, but for some reason maybe the public has this perception" that running is harmful to your knees, he said.

Hyldahl and his colleagues are now adding to that body of research with a small pilot study which concludes a moderate amount of running may decrease chemical markers of inflammation in young athletes with healthy knees.

The researchers knew that regular exercise protects against degenerative joint disorders, but the reason for that is largely not understood. They also knew that inflammation is generally correlated with the onset of degenerative joint diseases.

To further understand the effect of running on the knee joint, the research team recruited 11 male and 4 female recreational runners between the ages of 18 and 40 years old and who had no history of knee articular cartilage injury and no knee pain in the three months prior to the study period.

The participants completed two trials each – one 30-minute bout of running at a comfortable pace and one 30-minute sitting session. Blood and synovial fluid samples were collected from each participant prior to each of the trials.

There came a complication. Because a healthy knee contains very little syno-

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vial fluid, researchers struggled to collect a sufficient amount for analysis. Of the 15 participants, researchers were able to complete analysis on six from whom they collected an adequate amount of synovial fluid.

Their results, however, were consistent and somewhat surprising, Hyldahl said. Prior to the study, researchers would not have been shocked to discover that running increases chemical markers of inflammation in the knee. After all, increases in inflammation following stress are common, and they are necessary for remodeling.

But the analyses showed that 30 minutes of comfortable running actually decreased the concentration of two pro-inflammatory cytokines, one of which in particular is strongly associated with osteoarthritis and rheumatoid arthritis in the knee. Those findings indicate that running may not only suppress knee inflammation, but may also protect against degenerative joint disease.

So what does that mean for runners? It suggests that running is good for knees and may even be an effective intervention for those who are more susceptible to arthritis.

"It's really hard to draw practical conclusions, but if you want to speculate out beyond what the data tell us, I'd say the obvious thing is that, in healthy young subjects, running appears to be protective or good for the joint environment," Hyldahl said.

While the results were consistent in all the participants, the researchers acknowledge that their results are based on a very small sample size because of the difficulty in collecting a safe and adequate amount of synovial fluid from the knee.

The good news is that the research team has developed a new way to extract synovial fluid more successfully, and they are looking to recruit more volunteers to confirm their previous findings.

The first study also raises a number of questions, Hyldahl said. For example, what happens if you repeat the experiment with a population of people who have a knee injury in their history?

For their next study, the researchers will repeat the experiment with volunteers with no history of knee injury and a second population of volunteers with a previous ACL injury.

"The question we're trying to understand is what is it about previous injury makes people more susceptible to future damage to the knee joint," Hyldahl said.

The team is trying to raise funds for that larger study now through a web page at https://experiment.com/projects/is-distance-running-good-or-bad-for-your-knees.

"Arthritis is the leading cause of disability in older adults in the United States, affecting 52 million in the US alone," according to that web page. "By comparing the knee joint inflammation of individuals with both healthy and previously injured knees, before and after a 30-minute run, we will better understand the relationship between running and knee arthritis. This will lead to more information and the possible development of interventions (including running) that may slow or prevent the progression of knee arthritis."

And then there's that pesky idea that running is damaging to knees.

"Equally important," according to the web page, "we will also be able to help debunk the myth the running is bad for healthy knees by providing a mechanism that shows running decreases knee joint inflammation, which is a precursor to knee cartilage breakdown." KT

Hyldahl, R. D., Evans, A., Kwon, S., Ridge, S. T., Robinson, E., Hopkins, J. T., & Seeley, M. K. (2016). Running decreases knee intra-articular cytokine and cartilage oligomeric matrix concentrations: a pilot study. European Journal of Applied Physiology, 116(11-12), 2305-2314.

Reynolds, G. (2017, January 18). Running May Be Good for Your Knees. The New York Times. Retrieved July 1, 2017, from https://www.nytimes.com/2017/01/18/well/move/running-may-be-good-for-your-knees.html

Seeley, M., Alyssa, E., & Hyldahl, R. (n.d.). Is distance running good or bad for your knees? Retrieved July 8, 2017, from https://experiment.com/projects/is-distance-running-good-or-bad-for-your-knees

Editor's One Cent's Worth

Why You Should Require Intro Students to Read KT (And maybe more advanced students as well)

By Penny McCullagh, Ph.D. KT Editor

Penny McCullagh

How many times have you gone to a party and met some new folks and upon telling them you are in kinesiology – they gave you a wide stare – and so oh – what exactly is that? You reply by telling them how to pronounce the word and then give them some broad definition of the field – from your point of view. Then you may even attempt to justify why studying physical activity or exercise (you may leave out terms such as sport or physical education) are important and hope you have justified your existence.

Well think about students who are just entering the field. They do not have your expansive knowledge, have not taught or conducted research in the field and may have a very narrow view of what kinesiology is – they may say they are in exercise science or they are going to become a physical therapist, but so early in their career have little knowledge of the breadth of our discipline. Then think what happens when they tell their parents they are going to be a kinesiology major – one more time – the wide stares and gaping mouths appear.

Well let's help out both our students and their parents – AND maybe even your Dean – get a better idea of what kinesiology is all about. The KT publication comes out four times a year so you could have students access all issues or just access a particular issue. KT includes articles from the depth of our field and some of past topics have been:

- Searching for Equality in the Canoe
- Recess – Is it Important?
- Do All Foods Cause Cancer?
- Triathlons – Are They Good for Your Health?
- Bone Health
- Mobile Aps and ACSM Guidelines
- Young Athletes and Concussion
- Improving Diversity in Kinesiology
- Some Schools Are Getting Kids Moving
- Are Standing Desks Living up to the Hype?

Why would such articles appeal to introductory students and millennial learners who prefer active learning, want relevance, and want to learn in a relaxed atmosphere? Also it is said that these students may have close rapport with their parents.

- Most of the stories are 300 to 1000 words long – just enough to grab some interest
- Many have electronic links to other resources
- Each issue spans a wide variety of topics
- It is electronic and FREE!

What can you and your students do?

- Report back on one article and then perhaps pursue the research in further depth
- Share KT with their parents, family, or friends and report back on what they learned
- Develop a jeopardy type game based in information gained after reading an issue of KT for less than 10 minutes

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- Find out more about kinesiology by going to the American Kinesiology Association web-site and investigating affiliated organizations
- Have students investigate if they are eligible to be recognized for AKA scholar awards

CHALLENGE

If you use KT in a class this fall – please write back and provide feedback or ideas that others might use. Send your successes (and not so great attempts) to kintodayaka@gmail.com

NPAP Quarterly Update – Business and Industry Sector

by Jason R. Carter, AKA Board Member of the NPAP Alliance

Jason Carter

As outlined in my last quarterly update, I plan to use the next several KT issues to take a closer dive into each of the nine societal sectors highlighted in the National Physical Activity Plan (NPAP). I will share some of the key strategies and tactics suggested by each sector.

The Business and Industry sector of the NPAP targets organizations that focus on 1) goods and services to consumers, governments, and other businesses, and 2) activities related to manufacturing. The NPAP recognizes that healthy people are an asset to the U.S. economy, and that strategies focused on a healthy workforce are important. The NPAP also acknowledges that strategies must be adopted at both the individual and organizational level, and that partnerships with other sectors are necessary.

The Business and Industry sector includes five basic strategies:

1. Businesses should provide employees opportunities and incentives to adopt and maintain a physically active lifestyle.
2. Businesses should engage in cross-sectoral partnerships to promote physical activity within the workplace, and such efforts should extend to local communities and geographic regions.
3. Professional and scientific societies should create and widely disseminate a concise, powerful, and compelling business case for investment in physical activity promotion.
4. Professional and scientific societies should develop and advocate for policies that promote physical activity in workplace settings.

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5. Physical activity and public health professionals should support the development and deployment of surveillance systems that monitor physical activity in U.S. workers and physical activity promotion efforts in U.S work places.

On the Business and Industry sector webpage of NPAP (see link below), you can click on any of these five Strategies, and it will populate tactics for the given strategy. This can be useful if you are interested in bringing fresh and/or alternative ideas for consideration with your own institution, your research/scholarly work, or your community-based outreach activities. For example, I am on a university-wide committee that annually reviews our "incentive" program for physical activity and wellness. Our program, called "TechFit", provides employees with up to $350 toward memberships focused on physical activity (i.e., fitness facilities, golf courses, ski trails/hills, etc.), thus I'm always interested in learning what others are doing to incentivize employee physical activity (in any societal sector). The Business and Industry "tactics" include "*create or enhance access to places for employees to engage in physical activity before, during, and after work hours."* As an academician, and someone who has convenient and readily available facilities at our university, it I have to sometimes remind myself that this is a major barrier for many. I also find myself asking what can I do, and/or what can my students do, to help reduce these barriers for local businesses and industry. Could this be a potential service-based learning project we include in our Introduction to Kinesiology course? Click here

I challenge all KT readers to join me for quarterly reviews of the NPAP societal sectors over the next several issues of KT, and attempt to incorporate applicable tactics into your individual, organizational, student service, and community outreach goals. Full access to the NPAP can be access via this link.

Welcome to the new AKA Board Members!

New AKA Board Members Appointed

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

John Bartholomew is a Professor in the Department of Kinesiology and Health Education at the University of Texas where holds the Teresa Lozano Long Endowed Chair.

Lara Duke is Professor and Chair in the Department of Sport Science at Douglas College, Canada

Tim Gavin is Professor and Chair in the Department of Kinesiology at Purdue University

Christopher T. Robertson is an Associate Professor of Motor Behavior in the Department of Kinesiology at Jacksonville University

Jared A. Russell is a Professor in the School of Kinesiology at Auburn University

Kinesiology Today

KT Editor: Penny McCullagh, Ph.D.

Managing Editor & Writer: Amy Rose

Staff Writer: Pat Wade

Designer: Sean Roosevelt