Letter from the Editor:

Fall is in the air, and amidst the cooler temperatures, changing leaves, and heightened demand for pumpkin-flavored everything, for those with kids, fall also means back to school time. But, whether you have kids, treat kids, or just see kids on your way to work every day, you know we never really stop learning—even when we’re not in school. Research continues to be conducted, and theories are tested both in the lab and out in the field on a daily basis. Keeping up with these developments is crucial to our professional development and knowledge base, especially when not everything always pans out as expected. Sometimes the results of the research and real-world implementation support what we’ve known all along, and other times new insights are gained, which can shift current mindsets and treatment paradigms. No matter the outcomes though, the information learned from these activities ultimately helps us, as practitioners, offer the best care we can for our patients and clients.

This issue focuses on advances in best practices in today’s nutrition care arena. We will explore how technology is paving the way to help us empower athletes to adopt a new way of thinking, question the current conservative approach to refeeding in patients with anorexia nervosa, and delve into the new trend of precision medicine and how it can be combined with the best practices concept. Hopefully the information presented in this issue sparks your interest in learning more.

As always, please feel free to reach out to me or any of the section editors if you have comments, concerns, ideas for upcoming issues, or an interest in writing for our publication. We welcome your input and will be enjoying our [insert your favorite triple organic, multi-shot, pumpkin-spiced, cinnamon toasted, salted caramel-roasted, brown sugar-infused, how did these things even become synonymous with fall anyways? drink here] while we wait to hear from you!

And now, it’s time to connect...

Rebecca Rivera Torres, MS, RD
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Want to write for our newsletter? Have thoughts on something you read? Or, maybe you just have a great topic for an article you’d like to see covered? Connect with one of the Sports Dietetics-USA, Wellness/CV, or DEED subunit section editors above today!

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Are you reaping all the benefits of your SCAN membership?

We have myriad resources available, including ready-made fact sheets to use with your patients; PULSE, our peer-reviewed publication; and continuing professional education (CPE) via PULSE, webinars, sessions at FNCE, and Symposium. Go one step further and join our complimentary subunits to get more in-depth topic information and networking by accessing your My Profile area on SCAN’s website, scrolling down to Membership Details, and checking the boxes for any (or all!) of the subunits that interest you. And, what better way to network and discuss nutrition advances and best practices with other RDNs like yourself than to converse directly via our our electronic mailing lists (EMLs)? Don’t forget, we’re social too! Like us on Facebook and follow SCANdpg on Twitter, Instagram, LinkedIn, and Pinterest. So, what are you waiting for? Be in the know and make your SCAN connections today!

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Powering Athletes' Plates Through Technology as a Sports Nutrition Best Practice

By Amy Goodson, MS, RD, CSSD, LD

If you work in sports nutrition at the team or individual athlete level, you know the challenges athletes face when making proper fueling choices. While many people track their food with apps that track calories and activity, many athletes don’t have or take the time to track a full day’s worth of food intake daily. In fact, Jospe et al found that only one-third of sports dietitians find these types of apps helpful in tracking athletes’ food intake1—thus two-thirds don’t see the value in this style of tracking. Wouldn’t it be great to stop tracking food intake, and instead, empower proper fueling using something most athletes always have on hand, ie, their phones? A best practice in the world of sports nutrition is impacting as many athletes as possible, which can be very difficult when there is only 1 of you and 500 of them. By leveraging technology to share personalized sports nutrition tips, recipes, and interactive tools to help increase knowledge, dietitians become more savvy and impactful day to day. The following are 2 examples of sports dietitians who are making an impact and powering athletes’ plates through technology.

Joe Lam was a US National Fencer and collegiate athlete at Duke University. Struggling to remember when and what to eat amidst his training and school schedule, he developed an idea to help with fuel timing and reminders. He piloted the idea with 40 athletes at Duke and, after seeing much success, decided to enhance his vision. Lam says, “With the help of a team of [dietitians certified in sports dietetics], we’ve built an app that addresses the importance of meal timing and nutrient combinations, while de-emphasizing calorie/nutrient counting. Many people ask what they should eat, but not enough are asking when they should eat. Our biggest strength is in our technology, which...[adapts] indefinitely to day-to-day changes, [allowing] users to truly make the app their own, while maintaining scientifically accurate meal timing.” His app, Brainbuild, uses a personalized notification system and dietitian-backed artificial intelligence to help athletes perform better and improve recovery. The app places an emphasis on coaching the user on optimally timed meal, snack, and hydration events that are strategically customized to their training, sleep, and personal schedules, as well as performance needs. As their schedules and performance needs change, the technology learns and adapts indefinitely.

Tavis Piattoly, MS, RD, LDN, another sports dietitian making an impact with technology, is Co-founder and Director of Sports Nutrition Education for My Sports Dietitian (mysportsrd.com). With extensive experience working with athletes at the high school, collegiate, and professional levels, Tavis desired a way to more effectively impact their habits and performance. His Eat 2 Win mobile App (expected to launch in fall 2017) is designed to help athletes improve their eating habits as they build muscle and increase energy levels by using customized meal plan guides based on the athlete’s specific goals. The app uses a food-first approach and provides breakfast, lunch, dinner, and snack options, as well as a safe and effective supplement plan and fast food guide. Athletes can track their eating through the app by uploading pictures of the meals they consume, and if needed, they can track their weight. The app also features push notifications reminding athletes when to eat, accountability through weekly account activity reports, access to a sports dietitian, eBooks, eCourses, and webinars.

With so much of today’s world being run by the palms of our hands, best practices require sports dietitians to find ways to stay relevant while impacting athletes’ eating habits on a higher level. Sometimes it’s just not enough for an athlete to track his or her food; athletes need to be empowered to make consistent, quality fuel choices with reminders and ideas. Being open to change and staying on the lookout for future sports nutrition apps like the two described here can help you enhance your practice and day-to-day impact by using a modern format approach to traditional sports nutrition education.

AUTHOR’S BYLINE

Amy Goodson, MS, RD, CSSD, LD, is a sports dietitian in the Dallas-Fort Worth area and works with athletes and exercisers of all ages from pee-wee to pro. She also spends time in nutrition communications as a consultant, speaker, and media spokesperson.

REFERENCE:

Nutrition Best Practices and Precision Medicine: Coming Together to Improve Health Outcomes

By Sharon Lechter Smalling, MPH, RD

The idea of best practices has been described as “activities, disciplines and methods that are available to identify, implement and monitor the available evidence in health care.”¹ This concept encompasses 3 activities, “health technology assessment (HTA), evidence-based medicine (EBM), and clinical practice guidelines (CPGs),” by which evidence is synthesized either as an evidence base (EBM and most HTA) or in the form of recommendations (CPGs and some HTA) for different decision purposes in health care.”² Another term being used regarding healthcare decisions and treatment in recent literature is precision medicine. The National Institutes of Health defines precision medicine as “an emerging approach for disease treatment and prevention that takes into account individual variability in genes, environment, and lifestyle for each person.”³ From treating patients in the intensive care unit to educating outpatients in a cardiac rehabilitation program, dietitians are able to use both concepts of best practices and precision medicine to care for their patients and clients.

Specifically in the area of cardiovascular disease (CVD), research for evidence-based nutrition guidelines is ever present and has advanced remarkably over the past 2 decades.³ The 2013 American Heart Association/American College of Cardiology Guideline on Lifestyle Management to Reduce Cardiovascular Risk,⁴ the 2015 National Lipid Association Recommendation for Patient-Centered Management of Dyslipidemia,⁵ and an article by Dr Dariush Mozaffarian published in Circulation earlier last year⁶ all agree that it is the overall diet pattern of an individual, not simply single nutrients, that has the most influence on one’s cardiometabolic health and should be the basis for nutrition counseling and education. It is with these evidence-based recommendations and determination of the opportunities and barriers for change with individual patients/clients that best practices and precision medicine can be combined to improve health outcomes in CVD.

A real-world example of this combination treatment model can be seen within the cardiac rehabilitation program where I currently practice. Upon entrance to the program, many of the patients have an advanced lipid profile drawn, which includes not only a basic lipid panel but also measures of lipoprotein particle size, inflammation/oxidation status, lipoprotein genetics, metabolic indices, glycemic control, and insulin resistance. The results of their advanced lipid profile in combination with their responses on the New Leaf Diet Risk Assessment (DRA) Survey⁶ and anthropometrics (body mass index, body fat, and waist circumference) are used to develop an individualized medical nutrition therapy care plan.

This plan uses best practice concepts that are evidence based to provide precision medicine to meet their needs and abilities while fitting within their lifestyle to promote a healthy outcome. At the completion of the program, the advanced lipid profile, DRA survey, and anthropometrics are repeated. Results are reviewed with the participants, highlighting their responses to the changes they have made, eg decrease in body fat, increase in high density lipoprotein, etc. The review also identifies additional areas for change and allows for new goals to be set.

Dietitians are uniquely qualified to use both best practices and precision medicine to empower patients/clients to make the changes that can lead to healthy outcomes and disease prevention. It is up to us, however, to ensure we continue to read and critique the research, attend symposiums, watch webinars, and participate in other continuing education opportunities to stay abreast of nutrition best practices as they continue to advance.

REFERENCES:


AUTHOR’S BYLINE

Sharon L Smalling, MPH, RD, is an outpatient clinical dietitian specialist at Memorial Hermann Hospital-Texas Medical Center, Houston, Texas. She works with cardiac and pulmonary rehabilitation patients and sees private patient referrals. She can be reached at Sharon.Smalling@memorialhermann.org.

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Higher calorie refeeding: an emerging best practice

by Kerri Heckert, MS, RD, LDN

Remission from anorexia nervosa (AN) requires complete weight restoration to reverse starvation-induced medical complications and cognitive deficits. The process of medical stabilization and weight restoration through nutritional rehabilitation carries the inherent risk of refeeding syndrome, a dangerous medical condition in which the introduction of glucose triggers an intracellular insulin surge, hypophosphatemia, and other electrolyte derangements that can lead to cardiac arrhythmia or sudden death. Patients who are severely malnourished are at greatest risk for refeeding syndrome, especially during the first week of refeeding.

The conservative approach for refeeding malnourished patients has been “start low, go slow” when it comes to caloric initiation and advancement. Current recommendations are to initiate refeeding at 1000 to 1200 calories/day and gradually advance by 200 calories every other day. The National Institute for Health and Care Excellence (NICE) recommendations prescribe initial caloric intakes as low as 5 kcal/kg/day for patients with a body mass index less than 14 kg/m² or negligible intake for more than 15 days and a maximum of 10 kcal/kg/day with slow advancement. However, there has been a growing concern for “underfeeding syndrome,” in which hypocaloric diets and slow caloric advancement lead to further weight loss, prolonged hospitalization, and delayed nutritional repletion. According to the Society for Adolescent Health and Medicine, “Inpatient refeeding protocols for [adolescents and young adults with AN] can be more aggressive than previously recommended.”

For patients with AN, shorter duration of illness, maximizing rate of weight gain during hospitalization, and achieving high discharge weight are all predictive of better outcomes. Compared to higher calorie refeeding, hypocaloric diets are unable to achieve these goals and are not protective against refeeding hypophosphatemia and other electrolyte abnormalities. In fact, research has shown that electrolyte derangements are dependent on the patient’s degree of malnutrition rather than the calorie level or rate of weight gain. Malnourished patients become hypermetabolic during refeeding, so conservative caloric prescription further impedes the goal of rapid, initial weight gain.

Several studies have challenged the current cautious recommendations and achieved successful outcomes when initiating a nutrition intervention at higher calorie levels and with more aggressive caloric advancements under close medical monitoring. Garber et al provided a systematic review of approaches to refeeding that supports “higher initial calorie feeding and faster approaches to increasing calories in hospitalized patients with AN,” and acknowledges that more research is needed to determine whether higher calorie refeeding is feasible in the outpatient setting without medical monitoring. At the Children’s Hospital of Philadelphia (CHOP), implementation of the Malnutrition Protocol produced “rapid, efficient, and safe weight gain,” which led to excellent improvements in median BMI, short length of stay, and low rates of refeeding hypophosphatemia phosphorus supplementation. Details of the Malnutrition Protocol and its outcomes, sample menus ranging from 1200 to 6000 calories, and roles and responsibilities of the multidisciplinary care team have been published.

Striking a balance between the need to optimize early weight gain with the need to protect against refeeding syndrome has made it challenging to publish best standards to date, but these recent studies are a start.

REFERENCES:

Introducing SCAN RDN and Special Olympics International Nutritionist, Mary Pittaway, MA, RD

By Christina Figueroa, MS, RD, CSSD, LDN

With over 40 years of experience as a dietitian, Mary Pittaway, MA, RD, is now Global Clinical Advisor in Health Promotion for Special Olympics International (SOI). She is also a member of SCAN’s “Expanding the Arena” taskforce, which seeks to promote the role of performance dietitians in lesser-known roles serving nontraditional athletes.

When speaking with Mary, her passion and commitment to improving the health status of athletes with intellectual and development disabilities (IDD) is clear. People with IDD have significant health disparities compared to the general population. With over 850,000 athletes ranging in age from 7 to 97 years in North America alone, Pittaway and team work to “level the playing field” regarding health via identification and resolution of environmental and educational barriers. “We see that [Special Olympics] athletes are challenged and successful at improving and maintaining their health and fitness.” Mary’s prior experiences teaching and promoting wellness with the University of Montana Health & Human Performance Department, being a small business owner, and spending years in public health have culminated into her pivotal role within this underserved population.

Mary has been involved with SOI since 2002 when she volunteered at a Healthy Athletes event in Montana. There, hundreds of athletes, families, friends, and coaches lined up for health screenings encompassing dental, vision, hearing, fitness, podiatry, blood pressure, and body mass index testing. Recognizing that bone mineral density testing was not being offered, Mary returned on the second day with ultrasound equipment to test the athletes and, subsequently, reported her findings to SOI. She has since become an integral member of the multidisciplinary team that has made a global impact on health outcomes in athletes and communities with IDD. Some of Mary’s key duties in her role at SOI include training dietitians and other health promotion experts; developing nutrition education, assessment, and referral protocols; monitoring health habits; and collaborating with staff/volunteers at the local, state, and global levels.

If you are looking for a forward-moving, challenging, multidisciplinary, and rewarding experience, get started by volunteering as a clinical specialist. You can also train to become a Health Promotion Clinical Director for your state’s Special Olympics program; several states are currently recruiting for this position.

For more information on becoming involved with this population, you can connect with Mary at mpitt59802@aol.com

AUTHOR’S BYLINE

Christina Figueroa, MS, RD, CSSD, is an eating disorder and sport dietitian in Boston. She is a member of SCAN’s "Expanding the Arena" Taskforce and can be reached at christinafig.rd@gmail.com.
Resources and Events

Events to Connect With Colleagues and Learn

Ongoing/On-Demand Events

SCAN offers on-demand webinars
For information: https://www.scandpg.org/cpe/

CDR offers online continuing education modules in various areas and ongoing opportunities to become board certified in sports dietetics

IAEDP offers on-demand webinars
For information: http://www.iaedp.com/webinars-schedule/

Eating Recovery Center offers on-demand webinars
For information: https://www.eatingrecoverycenter.com/professionals/on-demand-professional-development

Jessica Setnick offers ongoing, in-person Eating Disorders Bootcamps
For information: http://understandingnutrition.com/store/store_results.php?Category=10&Section=Eating+Disorders+Boot+Camp

Nancy Clark’s on-demand, home-study course Nutrition for Sports, Exercise & Weight Management: What Really Works and Why?
For information: http://www.nutritionsportsexerciseceus.com/

Renfrew Center offers ongoing, in-person conferences
For information: http://renfrewcenter.com/events

Conferences

November 2-4, 2017
BEDA Conference 2017 in partnership with NEDA, Brooklyn, NY
For information: info@NationalEatingDisorders.org

November 10-12, 2017
27th Annual Renfrew Center Foundation Conference for Professionals, Philadelphia, PA
For information: www.renfrew.org; kpatel@renfrewcenter.com

April 21-25, 2018
Experimental Biology (EB) 2018, San Diego, CA
For information: experimentalbiology.org/2018/Home.aspx

May 4-6, 2018
Mark your calendar for the 34th Annual SCAN Symposium, No Limits Nutrition: Extreme & Unique Practices, Keystone, CO.
For more information: https://www.scandpg.org/symposium2018/

Resources to Connect With Your Patients

American College of Cardiology (www.acc.org)
The LDL-C Manager app links the ASCVD Risk Estimator Plus, Statin Intolerance app, and a lipid-lowering therapy tool. For information on the ACC apps and risk calculators, check out http://www.acc.org/tools-and-practice-support/mobile-resources.

American Heart Association (AHA)/American Stroke Association (ASA) (www.heart.org)
AHA has launched a free mobile app for heart attack survivors called My Cardiac Coach™. For more information, search the homepage for “My Cardiac Coach.”

American Society of Hypertension (www.ash-us.org)
For a listing of ASH-Certified Comprehensive Hypertension Centers and Hypertension Practice Centers, search “Certified HTN Centers” on the home page.

National Diabetes Education Program (http://ndep.nih.gov)
NDEP’s Game Plan for Preventing Type 2 Diabetes is available at https://www.niddk.nih.gov/health-information/health-communication-programs/ndep/health-care-professionals/game-plan/Pages/index.aspx. Besides patient information, the toolkit includes reimbursement and coding for prediabetes screening and tips on how to talk with patients about their diagnosis and help them make lifestyle changes.

The Office of Disease Prevention and Health Promotion (https://health.gov/)
If your patients need details on the Dietary Approaches to Stop Hypertension (DASH) Diet, refer them to https://health.gov/dietaryguidelines/dga2005/toolkit/dash/how_make_dash.htm
For tips on reducing sodium, see https://health.gov/dietaryguidelines/2015/resources/DGA_Cut-Down-On-Sodium.pdf

Preventive Cardiovascular Nurses Association (http://pcna.net)
For patients with heart failure, the PCNA offers 5 downloadable fact sheets and a patient log. See http://pcna.net/gcnif/patient-education/heart-failure

Training & Conditioning (www.athleticsearch.com)
Training & Conditioning is a publication for professionals involved in the training, conditioning, rehabilitation, and care of competitive athletes. Sports dietitians are frequent authors of T&C articles. Sign up for a FREE subscription at www.athleticsearch.com/subscribe2.html.