"Eat, Pause, Listen: Wise Ways to Live in a Busy World"

Sabbatical Report: Spring Term 2019 Wendy Simmons, Health and Physical Education

The goal of my sabbatical was to take four online courses in the areas of biomechanics, mindfulness and nutrition, and bring that information back to Lane employees and students. I completed all four classes and got certified as a Level 1 Coach through Precision Nutrition and as a Corrective Exercise Specialist through "The BioMechanics Method." The objectives of taking the BioMechanics course are to help employees who have muscle and joint issues that limit their ability to do daily activities and movement, as well as, to teach fitness program students about exercise program design. Through the Mindfulness-Based Stress Reduction course I learned more skills on how to deal with stress, be more attentive and be more mindful in relating to and communicating with others. I can train both students and employees about these skills in classes and workshops that I teach and facilitate on campus. In the Precision Nutrition course, I reviewed and learned about the most current research in nutrition, physical activity, and coaching others. I can use this information in my individual meetings with employees, in leading employee focus groups, and in the "Coaching Healthy Eating" course that I teach for our fitness program students. Lastly, finishing the "Mindful Eating for Students Instructor Training" has provided me with curriculum to supplement current courses I teach for students and bring that program to employees.

I was not able to attend the IDEA Health & Fitness Association Personal Trainer Institute in Seattle as the location moved to Texas and it was not within my budget to attend there.

The Biomechanics Method Corrective Exercise Specialist Course taught me a systematic way to assess posture to help people decrease pain and improve function. The course taught me how to help people learn correct "neutral" postures so that less stress is put on soft tissues and bones, and forces can transfer correctly through the body resulting in less tension and pain.

I learned what good alignment looks and feels like, and how that alignment is interconnected through the joints because what happens at one joint affects the position and function of other joints. For example, if your feet collapse in (i.e. pronate), your lower legs will turn in, putting stress on your calves and knees. This will cause your upper legs to rotate in and the head of your femurs to move backwards in their hip sockets. This results in the top of the pelvis (ilium) moving forward into an anterior tilt. This in turn increases the curvature of the lumbar spine, putting stress on the low back.

Another example, such as what can occur when we sit at computers all day, is thoracic kyphosis (i.e. an exaggerated curvature of the thoracic spine, causing a rounded upper back) which causes the shoulder blades to protract and elevate. This will result in the arms rotating inward beyond their neutral position. This chain of events sets off compensatory patterns in the head and neck. The rounding of the thoracic spine causes the head to move forward of the torso causing the head to tilt back to allow the eyes to stay aligned with the horizon, placing extra stress on the neck. In addition, the forward shift in the thoracic spine will usually cause the

pelvis to anteriorly rotate to compensate and help keep the torso upright. Here are visual examples of the interrelatedness of the joints of the body:



The course also emphasized that as you are working with people, you need to take into account what they do all day or your exercise plan won't be effective. For example, if someone spends eight hours each day on a computer, he/she is more likely to have internally rotated arms, a forward head, rounded shoulder blades and an anterior pelvic tilt. Thus, your corrective exercise plan needs to address what might be causing their issues and thus, for example consider how to improve their workstation and encourage stretch/exercise breaks regularly throughout the day.

I learned a new way of thinking about the actions of muscles (refreshingly different from when I took anatomy many years ago), in terms of how muscles might react to gravity and ground reaction forces. For example, the quadriceps muscles of the leg are responsible for extending or straightening the knee, but they also act to slow down knee flexion (i.e. bending) such as when we walk or squat. It is important to know when designing corrective exercise programs that muscles, tendons and structures, when working appropriately, slow down forces so that joints take less stress and absorb shock better. For example, if the muscles on your shin (i.e. tibialis anterior) and calves (i.e. soleus and gastrocnemius) don't help to slow movements, you may overpronate your feet and cause shock/stress to your feet and knees.

I learned more about fascia, a type of connective tissue that intertwines and binds every muscle, organ and soft tissue structure in the body. Muscles don't work in isolation. When structures of the body are either out of alignment or not working correctly, the entire system is affected due to this interconnected fascial network. The fascia gives us support and helps us to move better as we bend, extend, side bend and rotate.

Three types of corrective exercise modalities were presented:

- self-myofacial release (i.e. self-massage) to regenerate and rejuvenate soft tissues that have become adversely affected by chronic mal-alignments
- active isolated stretching to increase the range of motion of the muscles, fascia, tendons and joints, and to retrain movement
- strengthening to retrain the neuromuscular system to coordinate new movements and/or muscles to facilitate correct function

Thus, each program begins with myofascial release exercises before progressing to stretching and then to strengthening exercises. The myofascial release exercises are simple, for example done with tennis balls, golf balls or foam rollers and done until muscle tension and adhesions in those soft tissue areas dissipate. Straightforward exercises are chosen to help people be successful and then build on that success. Examples are rolling the bottom of the foot with a golf or tennis ball, or rolling the IT band and quadriceps on a foam roller. Realignment then happens through the active static stretching. For example, if you have an increased anterior tilt you probably have weak glutes and tight hip flexors. In a kneeling lunge stance, by tucking your pelvis under into a posterior tilt and squeezing your glutes, you will both stretch the hip flexors and strengthen the glutes.

Lastly strengthening exercises are given to retrain muscles and function, and in consideration as to how they affect posture and other structures. For example, for someone who overpronates, I might recommend strengthening the glutes, which will also affect the alignment of the knees. In the "Duck stand" exercise the person drives his/her heels into the ground, tilts the pelvis posteriorly, and should feel the glutes contracting to help pull up the arches of the feet.

Over the course of the term, I did the full body postural assessment on 10 people, ages 40 to 70, and recommended exercises for each. Here are my major findings:

- 7 of 10 were mild to severe pronators
- 8 of 10 had a deviation of one or more toes, e.g. ab- or adducted big toes

7 of 10 had tracking issues at their knees

8 of 10 had lumbar lordosis (i.e. excessive arching) and an anterior pelvic tilt

9 of 10 had an issue in the upper back or shoulder, such as excessive thoracic kyphosis or one or both internally rotated arms

9 of 10 had a slight to severe forward head and/or an excessive curvature of the neck

I worked with two women regularly throughout the term. I'll refer to them as A and B. Person A's assessment major findings included: feet, low back and right shoulder pain, pronated feet, medially deviated knees, an anteriorly rotated pelvis and lumbar lordorsis, the right arm was internally rotated and her head was forward causing an excessive lordodic curvature in the neck. I gave her myofasical release, stretching and strengthening exercises in a progression of seven sessions over eight weeks. This resulted in a positive response, a large decrease in the discomfort experienced doing myofascial release techniques, indicating that the tissues were responding and rejuvenating. In addition, her shoulders and feet were less sore, her low back was feeling better and a side benefit was that she was "getting up and down off the floor much better" and at age 70, this is very important.

Person B's major findings were pain in her left heel, pronated feet, right knee pain, the right knee was medially deviated and having tracking issues, and she had some mild low back pain. Working with Person B over 10 weeks giving myofascial release, stretching and strengthening exercises, we found that her self-massage discomfort improved significantly in all areas except her iliotibial bands (they run down the outer thigh from the top of the pelvis to the tibia or shin bone). Her heel pain decreased significantly so that she was able to participate in two 5K runs. Her back pain decreased and while the right knee sometimes gives her problems, it hasn't stopped her from doing any activity. She participates in both aerobic and strength training activities.

The "Am I Hungry? Mindful Eating for Students Instructor Training" provided a comprehensive approach to why we eat, how we think about eating, how we eat, what we eat and where we spend the energy from the food we eat. Such an approach is needed as we know that long-term dieting, for the majority of people, results in counterproductive psychological consequences like preoccupation with food, body image challenges and increased emotional eating.

The Mindful/Instinctive Eating Cycle is a tool for recognizing and understanding eating behaviors:



When you're an instinctive eater, you eat to fuel your body thus, you're attentive to your body's signals, your fuel needs depend on your hunger level, you eat whatever, you eat to satisfy your needs, the energy from the food you eat goes into life's daily activities, there is no guilt and food is pleasurable.

Many people switch back and forth between restrictive eating and overeating. This is called the eat-repent-repeat cycle. When you're being "good" you start to feel deprived, so you overeat and then when you "cheat" you feel guilty. The result is yo-yo dieting and weight cycling. The yo-yo describes the drastic shifts in eating behavior, that there's no middle ground, it's one extreme or the other, so that the person is tightly wound up in rules or unraveling and heading down again. The Overeating Cycle:



Your desire to eat is triggered by unconscious or conscious physical, environmental and emotional triggers such as fatigue, the time of day, loneliness, anger or happiness. If your trigger is boredom, eating gives you something to do for a little while. If you're in the habit of eating for many different reasons, you'll feel like eating all the time. You might feel guilty about eating and there is nothing to tell you to stop eating. Because you didn't need to eat, you're more likely to store the food and less likely to be physically active. And then there's the Restrictive Eating Cycle:



Eating becomes joyless and when "bad" foods are eaten you experience guilt. If you under eat your body will use the energy and if you overeat you might use exercise as punishment. You are preoccupied with food, exercise and your weight. It makes your life feel smaller.

Mindful eating helps you get in touch with sensations of hunger and satiety to help you reconnect to your instinctive ability to know what your body needs. This can help you to eat until you are satisfied, feel comfortable after eating and find it easier to stop because you'll know you'll eat again when you get hungry. And food tastes much better when you're hungry. Internal and external influences may have caused your natural system of regulating your food intake to go haywire, e.g. foods were used as rewards for good behavior, certain activities become paired with eating, and/or food may have been used as a way to deal with emotions.

The program teaches participants to use a hunger/fullness scale to get in touch with their signs/symptoms of hunger and satiety. It helps participants identify their true underlying needs. It trains people to break up the cycle of reacting mindlessly to their thoughts, and thus by becoming aware of their thoughts, to begin to break old habits or stop automatic reactions. This is because thoughts lead to actions and/or self-fulling prophecies. The program helps participants describe their emotions and thus connect their emotions to their needs because, as

program Founder Michelle May says, "When a craving doesn't come from hunger, eating will never satisfy it."

The program helps participants get rid of guilt and make eating for enjoyment an intentional decision. "When you are free to eat whatever you want, food quickly loses its power over you. You are able to eat anything without eating everything." – Michelle May. Program principles include: all foods fit; balancing eating for nourishment with eating for enjoyment; eating a variety of foods; eating in moderation by listening to your cues of hunger and satiety and thus wanting to feel comfortable after eating; making small, gradual changes; looking at the big picture; learning about nutrition; considering your personal health needs; making foods taste great; eating with intention and attention; loving what you eat by eating with the intention of nourishing your body and enjoying your food, and focusing your attention to fully experience the food and your body. Eating the right amount of food isn't about being good, it's about feeling good. Lastly, since this is a process, when you do make a mistake, don't miss the lesson.

Mindful movement is also encouraged, to choose activities that are both challenging and enjoyable, to do them with intention and attention and to move with the goals of caring for yourself and feeling better when you're finished. Since we sustain and nourish the things we care about we need to accept ourselves right now, just as we are. "The curious paradox is that when I accept myself just as I am, I can change." – Karl Rodgers

Michele says, "Well-being doesn't require perfect health; it is simply an intention to practice self-care in your present situation." Thus, we can think of where we can invest the time and energy we'll have when we're not consumed by food and eating, or by not eating.

In the Precision Nutrition (PN) course I reviewed and learned more about:

- the science of nutrition such as metabolism, digestion, absorption and fluid balance
- the importance of considering the specific and unique needs of individuals you work with
- what good nutrition plans look like and how they help us feel good and perform well
- client-centered nutrition coaching and staying within my scope of practice

I learned a quality process for working with and making nutritional and exercise recommendations for people. This process includes assessment, identifying client goals, understanding the person, creating an action plan, monitoring, observing, using outcome-based decision making, knowing when to refer and having a network to whom you can refer. The big picture really is to guide people to eat whole, minimally processed foods and to get or stay physically active. We help people do this by making small changes that support exercise and nutritional needs and desires, and then build on that success, creating new habits, one to two at a time. Realizing that helping people change food behaviors is almost never just about the food, my job is to help people explore their potentials and decide for themselves the best plan of action. The following is used to create an action plan that starts with the end result:



PN recommends always starting small and finding out what people are ready, willing and able to do. It's good to weigh the pros and cons regarding change, e.g. what might be good and bad about changing and what might be good and bad about not changing. If you let people know that they have the option not to change, paradoxically this often makes them more willing to change. PN focuses on having people gradually transition to adding nutritious foods to their diet without asking them to eat less of the processed ones. As a result, their diet usually changes over time as there is less room for more processed foods.

PN suggests we help people create a supportive environment. For example, Dr. John Berardi's first Law states, "If food is in your house or possession, either you, someone you love or someone you marginally tolerate, will eventually eat it." The corollary of Berardi's First Law is "If a *healthy* food is in your house or possession, either you, someone you love or someone you marginally tolerate, will eventually eat it."

It was emphasized to keep in mind individual differences because not everyone responds the same way to the digestion and absorption of particular foods or to the uptake of certain nutrients into a cell. Although we are more alike than different, our small genetic differences, called genetic polymorphisms, explain why some people respond slightly differently to various types of foods. For example, we all have a gene in our liver for making a particular enzyme that breaks down caffeine. However, due to genetic differences some of us have the enzyme that breaks down caffeine quickly and others have the enzyme that breaks down caffeine slowly. In people with the fast enzyme, caffeine is processed and removed quickly and the antioxidants found in coffee can help protect against free radicals. In people with the slow enzyme the caffeine hangs around longer, causing health problems. In a study that asks if one to three cups of coffee is healthy or unhealthy, it depends upon whom it's for. In addition, how fast food moves through our body depends on many things such as how much stress we're under, how much we eat, what we eat and how active we are.

I learned about solid nutritional principles including the fact that calorie counting won't help people in most cases. Some reasons for this are because calories on labels aren't always accurate, different batches of natural and processed foods vary in their exact amounts, the soil and how foods are grown affect the calories they contain, nutrients and calories in animal sources vary depending upon how they lived and what they ate, and the length of storage affects nutrients and calories.

Precision Nutrition reinforced what I learned in the Mindful Eating course. Regarding instinctive or "normal eaters" they don't think of food in terms of good or bad, and they don't overthink food, they plan and prepare as necessary. They don't under think food, they eat mindfully, aware of the choices they make and how they feel. They understand how food choices relate to fitness, performance and health and they seek out those options, but don't have to be perfect. They enjoy food, but don't get emotional solace from it. They eat when they are physically hungry and may or may not eat when they have a craving. They stay connected to physical cues and stop eating when they are physically satisfied. They eat slowly and often do something between bites like set down their utensils, take a breath or three, or take a sip of water.

In the Mindfulness Based Stress Reduction course I learned that what you practice grows stronger. Thus, if you practice kindness, compassion and mindfulness this will shape your brain so that will become more kind, compassionate and mindful. If, however you practice judgment and shame, you'll get good at judgment and shame and the centers of your brain that deal with growth and learning will shut down.

Mindfulness increases the grey matter in your brain that's associated with self-awareness, emotional intelligence, interoception (i.e. a sense that helps you feel and understand what's going on inside your body like hunger or thirst) and compassion. As with exercise in moving our muscles, those muscles get stronger and the movement gets easier until it becomes automatic. The brain is no different. As the neural networks you exercise become stronger, the thought patterns and mental habits represented by those neural networks get stronger and become automatic, while the muscles and neural networks you don't use get weaker.

I learned a new way to think about meditation and to change the mindset that I had before I started this course, which was believing that I couldn't meditate. I've learned that it's about awareness, mindfulness, slowing down and being with yourself. It's not about stopping or trying to change your thoughts. It's a new, wonderful way for me to think about meditation and to actually do it. Mindfulness helps you realize you don't have to believe or act on your thoughts and that when you can observe your mind that brings you freedom. Lastly, reflecting on the course in its entirety, I've come to view mindfulness-based stress reduction as a way of living, not just something you do for a few minutes each day. It's about living your life to the fullest by paying attention, communicating/listening well, being compassionate and grateful, being kind to yourself and others, and not judging yourself or others.

I plan to continue with a meditation/mindfulness practice daily. I will do one of the practices I learned in the course, such as a breathing exercise, yoga, a body scan or a lovingkindness meditation. I also plan to work on being more aware in general, to use my senses to the fullest and take in the gifts that surround me. To assist with this, after viewing the "The 365 Grateful Project", I've started taking one picture a day of something I'm grateful for and plan to do this for a year. I will continue to work on being mindful in my communication: to listen without thinking about what I'm going to say next; to allow for space; to work on when to speak and

when to be quiet; to communicate without an agenda and to focus my attention on whomever is speaking. I'm also going to continue to commit to the practice of "being kind always" and use a "just like me" lens to acknowledge that none of us are perfect, that we all make mistakes, and we are all human and connected.

My final reflection is that I'm very grateful to have had this professional development opportunity. I learned a lot and I'm excited to share what I learned with employees and students. Regarding the information I was familiar with, it was presented in a different light so that I enjoyed the review and learned some new ways to present the material. I will also bring some of the formatting ideas to the online classes that I will be teaching this year to students. I plan to share key concepts, ideas and resources with my division and incorporate them into my classes for both students and employees. In addition, I will share the information in seminars and in individual coaching with employees. Lastly, in this ever-changing field of health and wellness, I learned more ways and accessed more resources to keep me current in this field.

These courses can be found at <u>https://www.thebiomechanicsmethod.com</u>, <u>https://palousemindfulness.com</u>, <u>https://amihungry.com</u>, and <u>https://www.precisionnutrition.com</u> Attached are my certifications.

CERITIFICATE OF COMPLETION

Wendy Simmons

The BioMechanics Method Corrective Exercise Specialist Course

CONTINUING EDUCATION CREDITS:

ACE Approved Course: cep45322 (8.00 CECs) ACSM Provider Number: N/A (80.00 CECs) CSEP Provider Number: Credits awarded per cycle (15.00 Units) Fitness Australia Provider Number: CEC points vary by module (29.00 Units) IFPA Provider Number: N/A (80.00 Units) PTAG Provider Number: N/A (80.00 Units) REPS UAE Provider Number: CPD points vary by module (40.00 CPDs) YMCA Provider Number: N/A (80.00 CEC)



May 17,2019

Date



Precision Nutrition acknowledges that

Wendy Simmons

has successfully completed the prescribed course and having demonstrated proficiency by passing all required examinations is hereby recognized as

Precision Nutrition Level 1 Certified

June 27th, 2019

CERTIFICATION DATE

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