

ELEMENTAL

The Official Mental Health Magazine of the University of Toronto

WINTER 2020



NUTRITION

HOW NUTRITION AFFECTS
MENTAL HEALTH AND WELLBEING

A PERSPECTIVE ON THREE OF THE LATEST NUTRITION FADS

HOUSEHOLD FOOD INSECURITY IN CANADA

EATING DISORDERS

HOW TO RECOGNIZE DISORDERED EATING VS. AN EATING DISORDER

EVIDENCE-BASED TREATMENTS FOR EATING DISORDERS

ORTHOREXIA: WHEN HEALTHY DIETING GOES TOO FAR

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LETTER FROM MELANIE WOODIN, DEAN, FACULTY OF ARTS & SCIENCE

Mental health affects us all. It is more important than ever to have an open dialogue about the stressors faced by members of our community and the impact these pressures have on our well-being.

Which is why I want to thank Grad Minds for inviting me to contribute to this interesting and evocative publication, Elemental.

In just two years and only four issues, you've covered a diverse range of topics related to student mental health – anxiety, depression, substance abuse and this month, eating disorders and nutrition.

At the same time, you are creating content that is accessible to a broad audience and that reminds us all how important it is to put our health and wellness first.

I commend you for bringing these issues to a public forum and for pursuing compelling, high quality content that also makes readers think about these topics from a variety of viewpoints and sources.

In this issue, you delve into the impact of nutrition on mental health and wellness and the serious issues one must face when dealing with an eating disorder. You also dispel some myths and misperceptions and place this topic well within the context of our daily lives. You also include helpful tips and resources that make the issue well-rounded and engaging from beginning to end.

As we know, members of our community can face a wide range of mental health challenges every day. Unfortunately, some of these issues – including eating disorders – are overshadowed by more public and prevailing discussions. Yet students are still struggling.

Thank you for exploring such a complex topic and bringing this conversation to the forefront. The health and well-being of our students is an ongoing focus for me, and we are looking at all the ways we can better support them – and all members of our community – develop skills and knowledge about health and well-being for the long run.

As Dean of the Faculty of Arts & Science, I am focused on opportunities, change and improvements that will help transform the student experience for both undergraduate and graduate students. I am committed to supporting students, faculty and staff to build a stronger, healthier and more connected community.

I am thankful for all the work Grad Minds is doing to help. Producing a thoughtful publication like Elemental is no small task on top of your studies and other commitments. Congratulations on this accomplishment.

Thank you for sharing your thoughts, ideas, energy and enthusiasm to help your peers. I think together, through our combined efforts and shared concern, we can strive to make a difference in the lives of students and everyone in our community.

Sincerely,

Professor Melanie Woodin Dean, Faculty of Arts & Science

LETTER FROM THE EDITOR

Tam pleased to present the fifth issue of Elemental, the University of Toronto's official tri-campus mental health magazine. The theme for this issue is Nutrition & Eating Disorders. Nutritional psychiatry is a relatively new field. Over the past two decades, there has been a steady increase in epidemiological studies showing that those who adopt a Western or highly processed diet are more at risk of developing psychiatric symptoms, including depression and anxiety. By contrast, those who adopt a Mediterranean-style diet are more protected from developing psychiatric symptoms1. A recent longitudinal study, called the 'SMILES' (Supporting the Modification of lifestyle In Lowered Emotional States) trial, showed that when people with moderate-to-severe depression were put on a modified Mediterranean diet for three months, remission was observed for 32% of participants². This study and many others demonstrate a direct link between diet and mental health and suggest that good nutrition is essential for optimal wellbeing.

In addition to what we eat, how we feel about eating also contributes to our mental health and wellbeing. Every day, we are overwhelmed by messages from social media and advertisements that may make us feel ashamed or guilty about the way we look. For some, having an unhealthy obsession to be thin and attractive has become a way of life; however, this may be a sign of a serious problem: an eating disorder. Regardless of gender, age, racial and ethnic diversity, sexual orientation, or socio-economic background, anyone who struggles with low self-esteem, poor self-image, or perfectionism is at risk of developing an eating disorder³. Surprisingly, eating disorders have the highest overall mortality rate of any mental illness, with anorexia being the deadliest4. While eating disorders are serious and can have lifethreatening complications, they are treatable.



In this issue, we explore the latest findings and treatments for eating disorders. Dr. Danielle MacDonald, Assistant Professor in the Department of Psychiatry, shares her perspectives on eating disorders through a clinical lens. Tracie Burke, Registered Dietitian and Registered Psychotherapist, discusses evidence-based treatment approaches for eating disorders. Alexandra Venger, Registered Dietitian, teaches us the difference between eating disorders and disordered eating. Jay Walker, Registered Psychotherapist, discusses his personal experience with disordered eating and excessive exercise.

We also look into the relationship between food and mental health. Kelly Matheson, Registered Dietitian, talks about the latest research exploring the link between nutrition and mental health. Dr. Valerie Tarasuk, Professor in the Department of Nutritional Sciences, tells us about her research investigating household food insecurity in Canada. Furthermore, we discuss popular 21st century nutrition trends and examine whether it is possible to take diet and exercise too far.

Moreover, we highlight several campus initiatives, including the SPARK program, an on-campus wellness initiative facilitated by the Faculty of Kinesiology and Physical Education; Mindfest, an annual mental health and wellness conference facilitated by the

Department of Psychiatry; and an experiential mental health and resilience workshop series facilitated by Dr. Milena Braticevic, Ph.D., Integral Health.

As a bonus, we have extra resources for our readers, including a "Mental Health Grocery List," the MIND diet meal plan, tips on how to eat healthy during exams, and recipes for Healthy Avocado Matcha Muffins and Homemade Kombucha.

I would like to extend my sincere gratitude and appreciation to the Elemental team for their hard work and dedication. I would also like to recognize the students, faculty, staff, and community mental health advocates who shared their knowledge, research, and insight with us. Most important, a special thank you to our readers for their continued support and for making this initiative a success!

Sincerely,

Jeffrey Lynham

Editor-in-Chief, Elemental Magazine
Co-Chair, Grad Minds

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EVIDENCE-BASED TREATMENT APPROACHES FOR EATING DISORDERS JENNIFER LEE

AN INTERVIEW WITH TRACIE BURKE

Tating disorders come in different types Land forms. Individuals with eating disorders can experience different symptoms even if they have the same disorder. As such, various treatment programs are often used to help patients. Toronto General Hospital (part of the University Health Network) offers a referral-based Eating Disorder Program to help adults diagnosed with an eating disorder, including anorexia nervosa, bulimia nervosa, and other specified feeding or eating disorders. We interviewed Tracie Burke, a registered dietitian and registered psychotherapist in the Eating Disorder Program to learn more about the program, her role, and her perspective on eating disorders.

What are some of the different programs offered at the Eating Disorder Program at Toronto General Hospital?

The services our team provides include in-patient, day treatment, and relapse prevention programs.

In the in-patient treatment program, people are admitted to the hospital. They are likely to be medically unstable and require acute medical attention, as they're going through the refeeding process [re-introduction of food after malnourishment or starvation may cause sudden shifts in the electrolytes in the body, which can result in fatal outcomes¹]. For some individuals, this could be the first point of entry into a longer series of recovery steps. For some, it may be meeting a specific and/or time sensitive goal. For instance, a patient may want to get off laxatives in 3 weeks. These individuals may not necessarily be thinking about larger recovery goals, but one small piece they might need is medical management.

The length of the day treatment program varies between patients based on their needs. Patients will have full weeks' worth of different programs they attend.

The relapse prevention program focuses on preventing relapses. Here, we have patients who have completed the day treatment program, reached their goals, and showed a spirit of recovery.

What are some of the key counselling methods in the day program?

We offer group therapy programs that are evidence-based for the treatment of eating disorders and are specific to different aspects of counselling.

We have groups that are focused on skill building for dialectical behaviour therapy

There's also an ownership aspect to the

treatment. When we see people that come

We used to think of eating disorders as more of an acute illness, but more and more, it feels like a chronic illness. Some people can come in to the program to have one dose of treatment, continue to maintain the changes, and live a life without their eating disorder. For others, they may have to come and do one piece, then come back to do another piece. That is not a failure; it's part of a longer lifetime journey of recovery. It's as if you have a chronic illness—your symptoms might flare up and need more support to manage. I think dispelling some of the myths that people may have about eating disorders can be helpful in understanding.

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(DBT)-skills for emotion regulation and incorporation of mindfulness. These skills can help individuals give up their eating disorder symptoms. We have groups that are more focused on cognitive behaviour therapy (CBT). One of the key aspects is using 'thought records' to challenge thoughts that are associated with behaviours. We try to get individuals to move their thinking away from rigid and unhelpful to more neutral and helpful.

We have structured meals and snacks, which is a key reason for some people to come into our program. We have meal groups to help them figure out what they're going to eat, how to incorporate foods that they may have either avoided in the past or only had during symptom-related to eating disorder. We try to provide an opportunity to get some food exposure and break down some of the negative associations they might have around particular foods.

We work on other skill practices and reframing perspectives. We do a lot of 'building a life' or thinking about self-esteem. This could mean starting to incorporate new activities or re-incorporate old activities into people's lives. We have groups that are focused on body image—try to minimize behaviours that maintain an unhealthy focus on the body as people try to move away from thinking about self-esteem as body image only.

What are your primary roles as a dietitian and a psychotherapist within your team?

As a dietitian, I'm responsible for delivering the nutrition care process. I would complete a nutrition assessment [diagnosis of nutrition problems using various nutritional indicators including medical, nutrition, and medication histories²], and provide support throughout the program. Oftentimes, the goal is to normalize their eating. This has many components and can look different for everyone–it could be having three meals a day, eating enough food, or gaining weight. We work on building healthy eating

behaviours. We take them out for meals to expose them to eating out in public, learning how to portion foods, having varieties of foods, and going grocery shopping. We do a lot of psychoeducation, where we teach what 'normal' nutrition is. We try to help dispel some of the myths that individuals may have picked up in their eating disorder journey and equip them with more neutral evidence.

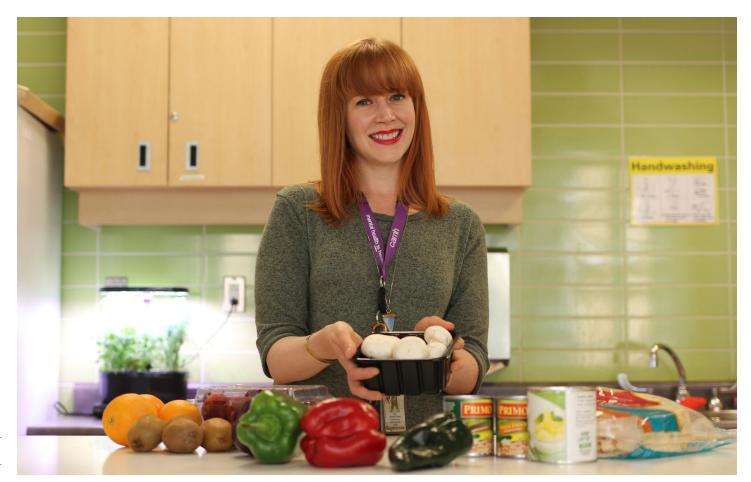
As a psychotherapist, I use psychotherapeutic techniques from motivational interviewing, CBT and DBT to develop a therapeutic relationship with clients that supports and maintains change. There's often ambivalence that comes with making behavioural changes to eating behaviours and weight. It's not uncommon for patients to break down when they're trying to make changes to their eating. As a psychotherapist, I can assist them in getting through these tough moments and place their long-term goals in perspective.

What are some tips you have for those who may not be familiar with signs and symptoms of eating disorders?

People can be struggling even if it seems like they're not. Generally, people who have eating disorders, also have other comorbidities like depression, anxiety, history of trauma, or addictions. Eating is often a symptom of other issues they are going through.

Recovery is not as simple as "just eat." Sometimes when your loved one has an eating disorder, it can be hard to understand the complexity of the illness. We may simplify it and say "just eat," but it is hard to make the change. If we think about the messages that we get in our culture around thin bodies and good and bad foods, there's a lot of evidence to support eating disorder behaviours if someone wants to find it. Recovery could often feel like 'swimming upstream,' going against the current. This can be really hard to do on their own, so group therapy could be the best approach to get the support individuals need.





THE LINK BETWEEN NUTRITION AND MENTAL HEALTH

JEFFREY LYNHAM

AN INTERVIEW WITH KELLY MATHESON

The importance of food is obvious—it provides energy and nutrients for our bodies to grow and develop in order to be active and healthy. Eating certain foods, however, can lead to poor physical health conditions such as heart disease, type II diabetes, obesity, and high blood pressure. But what about mental health conditions? To find out more about how nutrition can affect our mental health, I spoke with Centre for Addiction and Mental Health (CAMH) Registered Dietitian Kelly Matheson.

You work as a Dietitian for CAMH, so there must be a link between diet and mental health. Can you talk a bit about that?

There's emerging evidence around the role nutrition plays in mental health. It's a new

area, but it's really exciting that it's become an interest in a lot of people. One area that people are researching has been the role of specific nutrients in improving, preventing, or treating mental illness. I'll use vitamin D as an example. A lot of research has shown that low levels of vitamin D is directly linked to depressive symptoms¹. That kind of research looks at how can we supplement people with vitamin D and how that could possibly improve symptoms of depression.

A second research area is looking at how certain patterns of eating or certain types of diets can assist in the prevention, treatment and management of mental illness. One of the diets that is looked at a lot in mental health is the Mediterranean style of eating because it's one of the only diet patterns that has been shown, through randomized control trials, to lower depression scores².

There's also another diet called "The Mind Diet," (see below) which is an adaptation of the Mediterranean-style way of eating. It has been shown to prevent Alzheimer's and dementia from developing3,4. These diet patterns are exciting because although the other research looks at nutrients like vitamin D, we don't eat nutrients, we eat food. Diet patterns and recommendations to eat specific foods are more realistic for people to apply in their everyday lives.

A third research area is the brain gut connection. The gut-brain axis (how our brain communicates with our gut and vice versa) shows that our gut health is directly related to our mental health. They used to think that our gut was just an inert object, but now they're showing that our gut and brain are connected by blood vessels and nerves. They communicate to each other in a two-way street. They've shown that substrates made by

the gut, like short-chain fatty acids, can travel to the brain across the blood-brain barrier and impact our mood. The gut can also produce neurotransmitters like serotonin.

Finally, there's also research looking at food in a way that's not just about the nutrients that we eat, but also the social and emotional part of food too. One of the jobs that I do here is to facilitate gardening and cooking groups. It's a cool form of therapy because there's a lot of good research to show when people are involved in producing or cooking their own food, they automatically make healthier choices, and that has a positive mental component to it. Our cooking groups are one of the things that a lot of our patients look forward to. They get to sit around a big table and eat together. We choose cultural foods that people like, and it brings a more positive experience than eating alone.

How can certain diets, like the standard American diet, affect our mental health?

When looking at how diet affects mental health, we can use depression as an example. Depression often occurs when there's an imbalance of neurotransmitters. Medications target neurotransmitter levels, which can impact our mood, our feelings of euphoria, and our feelings of contentment. When those neurotransmitters are low, that can make us feel unwell. Foods that are high in simple sugars and fat, our so-called comfort foods—chips, chocolate and cake—all those things we crave because it's a natural part of our physiology. When we eat them, they can temporarily increase those feel-good neurotransmitters, which is why people tend to crave them when they're feeling bad because it gives them that instant energy. When you suddenly stop, it's normal to crave those foods. The same process happens when people are recovering from drugs or alcohol.

Also, a lot of people who have depression, they're on these medications that make them feel sedated and tired, and again, it's natural to crave those foods because they give those instant energy boosts. A lot of our patients here are really into coffee, sugar, and cigarettes, because

these are things that give them that energy boost. With the Mediterranean diet, we know that these foods have lots of nutrients for the synthesis of neurotransmitters. It's important to get these nutrients because they're going to build those feel-good neurotransmitters, and they're going to keep them high for longer versus the high followed by a sugar crash.

Another component around nutrition and mental health is markers of inflammation. A standard American diet is considered to be more pro-inflammatory. When you have high levels of simple sugars, fat, and salt, it can increase inflammatory markers. There's a lot of research to show that these inflammatory markers may cross the bloodbrain barrier, which can impact our mood. The Mediterranean diet, which includes a lot of vegetables, fruits, essential B vitamins, Omega-3s, vitamin D, and healthy proteins, these are more anti-inflammatory.

What is your view on supplements? What supplements do you recommend for optimal mental health?

If you have an overall healthy diet, then most nutrients you can get through food. There are a few exceptions, and it also depends on the way you eat. If you follow a vegan diet, for example, there are certain nutrients you have to be aware of and you may have to supplement depending on what you buy and what you like to eat.

The one supplement I do recommend is vitamin D. We know that vitamin D has direct links to depression scores. Between October and April, we don't synthesize enough Vitamin D because of where we're at in the world. The only products in Canada that are fortified with vitamin D are cow's milk, fortified soymilk, and other fortified milks like almond and hemp milk. I usually recommend 1000 IU a day, but a cup of fortified milk has only 200 IU. Unless you're drinking five cups of milk or milk alternatives every day, you're not going to meet those needs.

What is the most rewarding part of your job? Do you have any particular experiences you would like to share?

A lot of the patients here are very marginalized. They may be homeless, they may have no social supports, they may be so ill that they don't know why they're here or why they're taking medication. Some patients may not like talking about medications or where they're going to live. They don't like talking about the fact they can't go outside, but everybody likes talking about food. It's something that everybody has in common. I have seen that talking about food and providing healthy food through cooking groups impacts people in positive ways.

Every summer, we have our gardening program. Volunteers come in to help us plant our garden in May, and then we use the garden all summer. We use the produce in our cooking groups every week. We change what we're making based on what's available in the garden. I had a younger guy who was focused on a healthy lifestyle. He wanted to eat well and work out; this was integral to his mental health. He said going to the garden before our cooking group and grabbing fresh produce was the best part of his stay here. He said he always looked forward to it, and it was such an important part of his recovery. People are now realizing how much food matters in their recovery. I admit that sometimes hospitals are lagging behind in the food provided for patients, but if I can make that better by supplementing from our garden and involving people in cooking, I'm hopeful it makes their stay a lot better.

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Edited by Benjamin Bandosz & Kate Rzadki

EATING DISORDERS DON'T DISCRIMINATE

CHERYL XIA

AN INTERVIEW WITH JAY WALKER

Walker Registered is J Psychotherapist (Qualifying) with the College of Registered Psychotherapists of Ontario. Jay completed a Master of Counselling Psychology through Athabasca University, where his research focused on areas of gender identity, body image, exercise, and eating disorders. Within his advocacy work, Jay writes and speaks publicly about these issues, including frequent collaborations with Sheena's Place, a Toronto non-profit that offers free support groups to those living with eating disorders. I sat down with Jay to discuss his personal experience with disordered eating and excessive exercise, as well as the broad similarities and differences between men and women with eating disorders.

To begin, I want to understand your relationship with food and exercise growing up and how that changed when you entered university?

At a very young age, it was pretty normal—I ate with my family. Throughout high school, I became more aware of my body image the first time that I put on weight. No pressure from family, just the false knowledge that eating less was going to make my



body change. I started chronically yoyo dieting without really understanding what I was doing. In university, I got into athletics, which at first felt like a release from needing to be stressed out about food. Then it just compounded into exercise addiction with extreme food restriction that ultimately turned into cycles of restriction and bulimia.

Was there a specific moment where you recognized that this was a problem?

After university, I went to college for health and fitness, and it was in the second year where I couldn't hide that I was sick anymore. There was a critical moment in front of everyone, where I was spiralling out of control in terms of being able to function. That was the catalyst for me thinking, "I cannot convince myself that anything that I am doing is healthy anymore."

What did the journey to recovery look like for you?

It started with admitting that I had a problem and then being open about that with a few close friends and family. I reached out to Sheena's Place because that was the only place I really knew, and I started attending some groups that were more specific to the behaviours I struggled with. Eventually, I also started doing one-on-one therapy because it is not actually about food, exercise, or your body. These represent coping mechanisms for other issues you may be dealing with.

How do you know when exercise is an addiction? How do you know when it is contributing negatively versus positively to your wellbeing?

A lot of people use exercise and movement to cope, and that is fine. When it is your only coping strategy, that is when it becomes a problem.

One of the groups that I run at Sheena's Place is called "Examining Exercise and Movement." We discuss different indicators for folks to question their habits around exercise: Are you working out when you are ill? Are you working out when you are injured while knowing that you should not be working out that part of your body?

Some of those are arguably more blackand-white, whereas others are grey. What happens when something gets in the way of your exercise routine? Is it the sort of thing where you're like, "That's frustrating, but it's okay if I miss a workout." Or is it a situation that spirals into anxiety? Do you directly compensate for missing that exercise through food restriction or modification?

In my opinion, if exercise is your only way of coping with anxiety, you can try to modify those behaviours, but ultimately you have to develop other skills to manage those anxieties or other difficult feelings.

There is a misconception that eating disorders only affect women. The stereotypical image is of a skinny, white, affluent girl, but some reports suggest that up to 25% of eating disorders cases occur in men. Concerns have been raised that men are underrepresented, underdiagnosed, and undertreated. Why do you think that is?

I completely agree that disordered eating can affect anyone regardless of gender identity, sex, or ethnicity. There are a few reasons for the underrepresentation in male-identified people. One is that men in North American culture are not socialized to talk about difficulties or feelings. Also, behaviours such as compulsive exercise or using restriction

to create leanness are not just normalized, they're often praised.

In the case of bodybuilders, who may not be restricting calories but are restricting in other ways, we do see a lot of the same difficulties. Anxiety is created when a workout is missed, and the social isolation of having to engage in extreme behaviours can have mental and emotional effects on people. Weightlifting all day long or needing every meal to be pre-planned and coordinated can isolate individuals from being able to go out and have a good time with their friends over a meal.

I have worked with a lot of men who did not recognize that their beliefs around food, exercise, and body image were keeping them isolated, which contributed to their mental and emotional distress. The symptoms can look different, but the motivations and implications are often similar.

Would you agree that the basic psychology of an eating disorder is the same regardless of your gender identity, in that it serves as a coping mechanism to deal with other stressors in life?

I agree, however, the underlying cause of any eating disorder can be very complex, including genetic and psychosocial factors. I will say that, in my work, I have never met a patient who suffered from disordered eating problems who did not also suffer from anxiety, depression, or trauma symptoms. The two go hand-in-hand.

To close, I know that you work with some great organizations that offer resources and support for those dealing with eating disorders. Can you talk about community options for those seeking help?

Sheena's Place is the place to go in Toronto. Over the years, they have diversified the types of groups they offer. They are much more inclusionary, which is great because people of all identifications and all walks of life struggle with eating disorders. If you are someone who doesn't have access financially, they do everything they can to break down barriers to mental health support. The National Eating Disorder Information Centre (NEDIC) is also a good way to gain more information, resources, and referrals. Through Sheena's Place and NEDIC, you can be connected to therapists all over the city, some of whom specialize in eating disorders.

Is there anything you would like to say to end the interview?

The one thing that I hear from a lot of people is that they often wait until they are really ill to seek support. If you think you might be struggling, then it's important to check in with yourself, check in with the people around you, and consult someone before it becomes critical. For a lot of people, circumstances get worse before they get better, so being able to recognize that and address it can be a way of saving yourself from distress.

I believe that a core part of the work is becoming attuned with the body. For a variety of reasons, such as trauma and an extensive list of other sociocultural factors, many of us are not given the opportunities to actually grow and become attuned with our bodies, its needs, and its natural responses to things. We are often told by outside sources what type of relationship we should have with our bodies, and all too often, those messages are completely the opposite of what our bodies need on a moment to moment level. I believe that becoming more aware of that relationship is one of the keys to recovery.

Edited by Negin Rezaie & Jeffrey Lynham

NON-DUALITY & THE NATURAL STATE

JEFFREY LYNHAM

AN INTERVIEW WITH DR. MILENA BRATICEVIC

r. Milena Braticevic holds a PhD in Integral Health from the California Institute for Human Science. Her research focuses on exploring strategies for mental health development and the prevention of depression and anxiety. Her research explores how increasing awareness of non-duality and the natural state can help ease depression and anxiety without the use of medication. I sat down with Dr. Braticevic to learn more about her novel approach in the prevention and early treatment of depression and anxiety.

Can you give me a brief overview of how you got to where you are today?

I completed a Bachelor of Commerce from the University of Toronto, with a minor in philosophy. After that, I went into business and had a software company with my brother for 13 years. During that time, I also completed my MBA at the Schulich School of Business. In 2015, we decided to sell our business and got acquired by Microsoft. At that time, I had already started doing my PhD in Integral Health.

What made you decide to pursue your PhD?

When I was 28, I experienced my first depression. I was stressed from being an entrepreneur and managing a company. What was interesting about the experience, was that depression took me by surpriseone day everything was fine, and then the next day, nothing was fine. I thought to myself, "How could this be a surprise?" I wanted to



understand the underlying conditions that need to be in place for mental health.

Your primary area of research is on nonduality. Could you explain to our lay audience what non-duality is?

Non-duality is an old philosophy. Some of the earliest literature on non-duality originates from 1000 BC in the Vedic teachings of advaita vedanta. Advaita literally means "not two." The whole teaching of advaita vedanta is a reminder that in reality, there is no separation. That's the basic explanation of non-duality. In modern science, physicist David Bohm explained that nothing in nature is fixed, and that everything is going through a continuous process of change and development, or the "process of becoming". To understand nonduality, it's helpful to look at duality, which indicates fixed states and opposites, such as good vs. bad, mind vs. body, and self vs. other. Duality deals with identification and separation. Language, thoughts, and concepts are dualistic in nature because we have to

identify something to talk about it. But if we believe that thoughts and concepts are the same as reality, then we're basically limiting our experience. The prevalence of anxiety and depression in the modern world is a result of a dualistic or fragmented view of reality. Nonduality is not a concept, it is a state of being, a direct experience of reality as it is. Although we can talk about it at the level of language, the experience of non-duality is beyond the conceptual mind.

How did you first come across non-duality?

In my PhD program, I took a course on nondual awareness and was intrigued by it because at the time, I was doing research on alternative healing modalities. Currently, there are about 150 scientists around the world doing research on the healing effects of entheogens and psychedelics such as ayahuasca, psilocybin, and MDMA on addiction, post-traumatic stress disorder (PTSD), depression, and anxiety. When I researched these alternative healing methods, I realized that they're bringing people to a state of non-dual awareness and are based on integration of experience. These healing modalities are powerful because they facilitate the level of experience beyond the conceptual mind. They light up new connections in the brain and can be effective in healing complex conditions even after a single session. I also attended a workshop at the Omega Institute in Rhinebeck, New York, where I experienced first-hand that the human mind can access non-dual awareness through guided meditations and experiential exercises, without the use of entheogens. This inspired me to develop an experiential program based on increasing awareness of non-duality and the natural state to treat anxiety and depression without the use of medication.

Could you give an example of a dualistic and a non-dualistic perspective?

You can have a dualistic or non-dualistic perspective on anything. You can take any object. Let's say a coffee mug. You can look at it from a dualistic perspective and say, "This is a coffee mug. That's all it is, and that's all it ever will be. It doesn't matter what I do with it, as the mug is separate from me." That's a dualistic perspective. With a non-dualistic perspective, you're looking at the same thing, but with a deep understanding of the underlying unity and interconnectedness: "This is a coffee mug now, but it came from clay, which came from minerals, which came from the earth, and I can affect its reality depending on what I do with it now. I can throw it into the garbage, I can upcycle it and create something new out of the ceramics, or I can recycle it to bring it back to the earth." In a non-dual perspective, there is a deep understanding that everything is going through a process of becoming that you're an active part of.

It's interesting when we apply the non-dual view to relationships. We have a tendency to think in black or white. For example, if somebody does something that we don't agree with, we might think this person is bad, but when practicing a non-dual perspective, it helps us to see that the person is going through

a process of learning and development. In this particular situation, they did things this way, but it doesn't mean that they are bad. It means that maybe they are confused, or they know something we don't. I've seen a lot of transformation when young people start looking at things and relationships from a non-dual perspective because it also helps them to see themselves as going through a process of learning and development, and they become more understanding toward themselves.

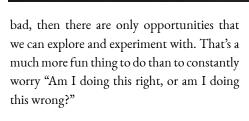
How can adopting a non-dualistic perspective help us in our daily lives?

A non-dualistic perspective increases the level of complexity and integration with which we experience the world. The non-dual state is the natural state, the state of being in which we experience reality as it is. It's a relaxed state of contemplation and awareness of the integrated nature of reality. Practicing this natural state can help us better understand who we are in relation to the world.

Most people don't know that anxiety and depression occur in stages, from normal to mild, to clinical, moderate, and severe. Treatment is typically required at the clinical stage. Due to the nature of these disorders, it is crucial to intervene early, when the symptoms are mild and before they get to the clinical level. It is much more difficult and costly to treat symptoms once they become more severe, so time really is of the essence.

Awareness of non-duality and the natural state can help with prevention and early treatment of anxiety and depression because it allows us to see more clearly who we are and that we are a part of something bigger. Then, we don't have to try to control everything; we don't have to worry about every single aspect. We can trust that we're doing our part, and that everybody else is doing their part. It's a sense of being supported in the world as opposed to being overwhelmed by it. As we see more options that are available to us, this can lead to more creativity because we can try out different things. If there is no good or





Could you tell me about your PhD research study? What were your main findings?

The purpose of my research study was to examine how increasing awareness of nonduality and the natural state can affect young people with depression and anxiety. I had 17 young adults as participants, between the ages of 18 and 29. 59% were students, mostly from Uof T. They were experiencing depression and anxiety between six months and 14 years; the average was 5.4 years. They had tried different methods in the past, such as medication, therapy, mindfulness training, CAMH Bounce Back program, meditation, and yoga. The study consisted of four weekly sessions, and each session included an educational, experiential, and behavioural component.

In the first session, I introduced the concept of non-duality. During the experiential

exercise, I took participants through a short meditation that included relaxation, noticing thoughts come and go, and noticing the space between thoughts. The behavioural component consisted of practicing a nondual perspective and experiencing the space between thoughts throughout the week.

The second session was about the natural state. The best way to describe the natural state is that it is the state of effortless effort, or just enough effort to feel alive. It's a relaxed state where you're aware of how you feel and who you are deep down. If nobody teaches us how to tap into the natural state, we can end up out of touch with our state of being and suddenly depressed, like me when I was 28. I just didn't know how depleted I was until a regular life event happened, and I thought, "I can't deal with things". Depression was a natural reaction of my system, a warning sign that I needed to recharge.

The third session was about the emerging and relational nature of the mind. This means that the mind is not something that is located in the brain that's responsible for intelligence and reason. The mind is embodied, which means there's a body-mind connection. It's emerging, which means that the mind can actually develop, grow, and mature. The science of neuroplasticity has shown that the mind can develop and that new neural connections are continuously made through experiences. The mind is also relational in nature, which means the health of the mind depends on the health of our relationship with ourselves, with other people, and with

The fourth session was a review of the first three sessions. It also covered future challenges, such as sustainability, the future of work, and the need for skills such as critical thinking, creativity, and collaboration, which are going to be key in navigating the changing work environment. We talked about the influence of powerful new technologies, like artificial intelligence and machine learning, and how these technologies will need to address human problems. We talked about how understanding what it means to be human will be important in addressing all these challenges.

The study methodology included collecting the depression and anxiety scores before and after the study. After the study, the need for treatment for depression, which means instances of clinical to severe depression, was reduced by 72%. The need for treatment for anxiety, which means moderate to severe anxiety, was reduced by 68%. By the last session, many of the participants started experiencing insight and inspiration. It really opened up this higher level of awareness and creativity, where one can be guided naturally through the process of life. It showed that we can access higher levels of being, just by introducing awareness of non-duality and the natural state.

I also collected qualitative data on the phenomenological experiences, both from the experiential exercises and behavioural reflections. That was very interesting because it showed that a gradual increase of awareness of non-duality and the natural state allowed people to feel more relaxed over time, it

reduced worry, and it gave them more tools to manage anxiety and depression. Participants developed a better understanding of themselves and other people. They reported increased physical, mental, emotional, and spiritual wellbeing. They also reported a higher sense of interconnectedness, increased creativity, confidence, and agency. When I did the 30-day and 6-month follow-ups, it showed that symptoms were reduced even more, which showed that increasing awareness of non-duality and the natural state created an upward spiral.

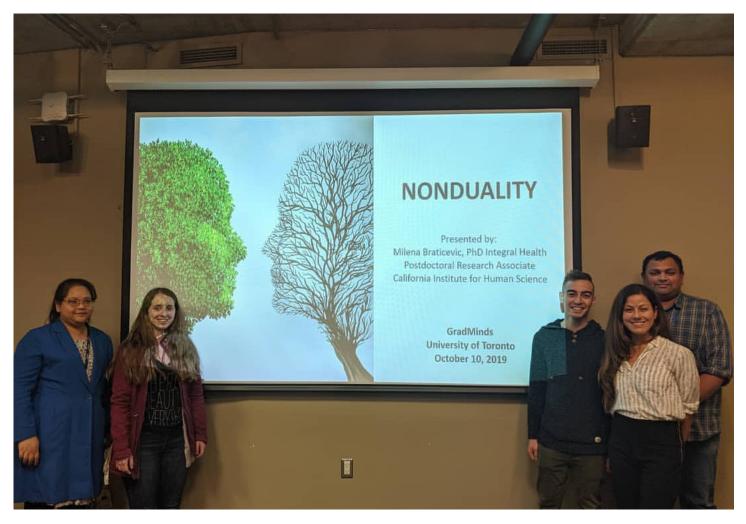
Now that you have evidence that this methodology can help with depression and anxiety, what do you plan on doing with it in the future?

This methodology can help with mental health literacy programs. It can help with understanding what the mind is and how it works, and how integration of experience is important for mental health. I consider myself a 'scientist-activist'-I strongly believe there is a need to shift the mental health paradigm towards prevention. I'm excited about the potential of this methodology because it shows that we can prevent anxiety and depression from spiraling into a clinical stage and reduce the need for medication. I am also excited about working with young people because they are very curious about the philosophy of mind and learning about innovative ways to develop mentally. I'm looking to introduce non-dual awareness into the classroom and the workplace through different workshops and programs, and I look forward to contributing to the prevention and early-intervention mental health paradigm.

For more information on non-duality and the natural state, visit nondualperspectives.com

For more information on upcoming workshops, email milenabrat@outlook.com

Edited by Celina Liu & Emily Deibert



EATING DISORDERS VERSUS DISORDERED EATING

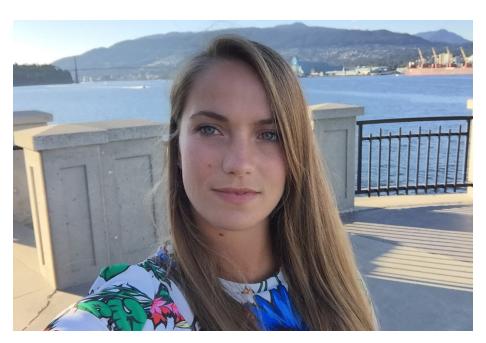
ANDREA DIAZ

AN INTERVIEW WITH ALEXANDRA VENGER

 $R^{\text{ecently I had the pleasure to interview}}_{\text{Alexandra}} \text{ Venger, a Registered}$ Dietitian who is currently working with an NGO in Tanzania to reduce childhood malnutrition. Considering her strong background in nutrition and her experience seeing patients that struggle with disordered eating, I was thankful for the opportunity to have her explain the differences between eating disorders and disordered eating. Ms. Venger defines these two terms for us and describes how to recognize them, as well as what to do if we believe we might be dealing with one or the other.

Can you tell us a little bit about your professional background?

I am a Registered Dietitian from Toronto currently working abroad in Tanzania with an NGO to increase the access and quality of health services to residents in Kigoma Region. My work currently focuses on reducing childhood malnutrition through improved healthcare services and community outreach. I am a relatively new dietitian, from Western graduated University in 2015 (go Mustangs!). Before my current placement I was working as a Registered Dietitian at a weight loss clinic and at a gym in addition to being a personal trainer. In both of these settings, a large part of my job was promoting client-centred weight loss (meaning it was their goal, not mine!). Although as dietitians it is our responsibility to provide client-centred care (and not impose judgement), it is important, I



think, to note this since we will be talking about disordered eating.

How would you define disordered eating versus an eating disorder?

It's very interesting that you mention disordered eating before an eating disorder since the latter is more well known. But let me start with eating disorders. An eating disorder is that which can be diagnosed using national guidelines (to whichever respective regions). The most common eating disorders include anorexia nervosa, bulimia nervosa, and binge eating disorder, which may be classified as a mental health disorder. These eating disorders have specific diagnosis criteria such as having a binge eating episode at least once a month for three consecutive months. Disordered eating, on the other hand, encompasses broader characteristics of problematic eating habits such as restrictive eating, preoccupation with food and weight loss, and those which do not warrant an official diagnosis (i.e., binge eating less than a week and/or fewer than three months). While only one may be officially classified as a disorder, that which negatively impacts health and may be lifethreatening, the other (disordered eating) addresses those habits which present differently in individuals and continue to pose negative health risks.

How are the two related?

The two are related in that they both may pose a life-threatening risk to those living with the condition and may negatively impact their quality of life. The difference is that one is narrower in its screening process (eating disorders) and may exclude those individuals who may require treatment outside of an official diagnosis.

How common would you say one is versus the other?

Disordered eating is more common than an eating disorder since it encompasses broader symptoms and characteristics. In Canada, eating disorders may affect about 10% of Canadians, or 1 in 10 people. Women are often more largely impacted

by anorexia nervosa and bulimia nervosa for a variety of reasons including genetics, social pressures, culture, and among others, while both men and women are often equally impacted by a binge eating disorder.

How can I know whether I have an eating disorder or am engaging in disordered eating?

The best thing to do is talk to your doctor if you can answer yes to any of the following statements:

"I'm always thinking about food, dieting and my weight."

"I often avoid food even when I am hungry."

"I feel guilty and ashamed after I eat."

"I often feel out of control when I eat."

"I feel better when I don't eat."

"I will never be happy unless I reach my ideal weight."

"I rarely/never get my menstrual period."

"I often try to "get rid" of food by purging."

"I experience physical signs that my body isn't getting enough nutrients, such as hair loss, dry skin, dizziness or lack of energy."

When should I seek help from a dietitian, and when should I seek help from a mental health professional?

If you suspect you may have an eating disorder or disordered eating habits and wish to get help, it would be best to speak to your doctor as they would have



all the information needed to guide you to the appropriate treatment. Treatment may include inpatient programs geared towards those in critical life-threatening conditions, psychotherapy, medication, nutritional counselling, support groups, and others. Given the complicated nature of eating disorders and disordered eating habits, one or a combination of treatments may provide the best outcomes. Deciding on which treatment to engage in, however, is specific to the individual with guidance from their doctor.

What steps can I take to improve my relationship with food?

Seek professional help. Self-diagnosing an eating disorder or disordered eating habits may be problematic and not offer the best course of treatment. Intensive behavioural counselling may be required under the guidance of a trained professional. In addition to seeking professional help, steps to improve your relationship with food may include being mindful of your overall habits and influences potentially motivating your behaviours. For example, pervasive social media marketing campaigns, cultural norms, peer pressures promoting an ideal body type, preference for specific diets

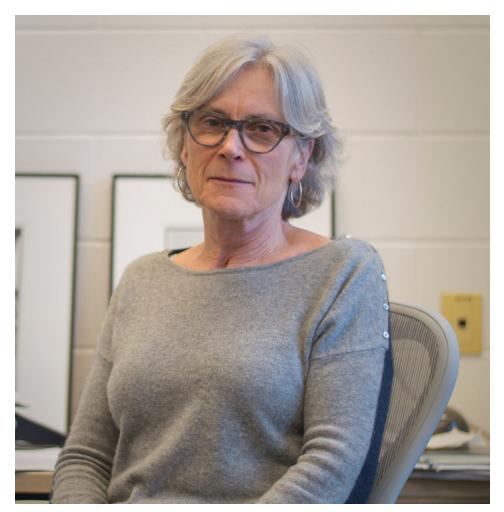
including fads, and idealizing a certain lifestyle may promote a negative self-view leading to behaviours to achieve the desired norm, even if these motivations are external to your inherent qualities.

If you find yourself becoming, for lack of a better term, victim to these negative influences, consider taking steps to reduce their impact on your life or how you may perceive them. For example, challenging norms promoting "x" body types in place of all body types, unfollowing certain social media profiles (such as those promoting "fitspo", "clean-eating", "gym goals" or any other restrictive or limiting views), and setting boundaries with family and friends favouring your wellbeing. This may mean identifying and reducing self-deprecating culprits, such as a family member who may constantly make negative remarks about your weight or eating habits, or friends who may inadvertently promote body shame by complimenting recent weight loss.

Being mindful of the many factors contributing to your eating habits and relationship with food is challenging, however with the right help and direction, improvements are very possible.

Edited by Natasha Cheong & Emily Deibert





HOUSEHOLD FOOD INSECURITY AND ITS EFFECT ON MENTAL HEALTH JENNIFER LEE

AN INTERVIEW WITH DR. VALERIE TARASUK

The most recent national estimate showed that 1 in 8 Canadian households is food insecure¹. In other words, over 4 million Canadians struggle to put food on the table. Dr. Valerie Tarasuk, a Professor in the Department of Nutritional Sciences at the University of Toronto and the Principal Investigator of PROOF, has been leading research studies to investigate household food insecurity in Canada. We interviewed Dr. Tarasuk to learn more about the relationship between household food insecurity and mental health in Canada.

What is food insecurity? How do you study it?

In a nutshell, we measure the struggle to afford food due to financial constraints. Since 2004, we have been using a complicated 18 item questionnaire that was originally developed by the United States to assess one's ability to afford food for their household, and then we scale the severity. Every question has a clause attached to it to establish that food insecurity is about money. The severity of food insecurity ranges from 'people worrying about running out of food before they get money to buy more' to 'compromises to quality and/or quantity of food.' We assess severity because research shows, depending on how severe it is, that it has different implications for people's health, different causes, and different solutions.

Using Canadian population health data, you have shown clear correlations between food insecurity and mental health. What do you think are the root causes of this relationship?

At this stage, much of the research suggests this relationship is bi-directional. Since food insecurity is such a stressful and extremely demanding condition to manage, it predisposes people to experience depression. On the flip side, people who are struggling with mental illness are perhaps more vulnerable to food insecurity. They may be less able to manage in the workforce and maintain circumstances that would support food security at a household level.

There is one piece of work with prospective data that is worth talking about. In the mid-90's, Canada launched the National Longitudinal Survey of Children in Youth and Family, where they recruited a cohort of young children and their parents and followed them over time. Back then, we didn't know a lot about food insecurity measurement. We asked basic food insecurity questions like, "Has your child ever gone hungry in the last year because you didn't have food or money for food?" That's a very extreme manifestation of household food insecurity. Interviews with low-income parents show that parents would do anything they can to prevent their kids from going hungry. When kids go hungry, it's a signal that there's a significant level of deprivation in that household. Ten to twelve years later, children exposed to such extreme levels of deprivation were more likely to exhibit suicidal thoughts and to have been diagnosed with depression^{2,3}. The exposure to severe food insecurity in children appears to increase the development of mental health problems, but we are still a long way from saying that there's a causal pathway.

The co-occurrence of mental health problems and food insecurity is common. One of our studies showed that almost half of women in severely food insecure situations have been diagnosed with mood or anxiety disorders⁴. There is no other health condition that we or anyone else has looked at that shows this

publicly funded, or even afford the costs of the medication to manage their conditions. Once you start realizing food insecurity is actually economic, it makes sense that mental health will suffer in that context.

an adult receiving treatment for a mental health problem by a physician, an emergency You talk about a need for policy interventions department doctor, or through being to address underlying causes of food insecurity. hospitalized⁵. The chances of hospitalizations What could that look like?

I think a starting point is prevention. If we think about preventing food insecurity from happening, a big part of that is making sure that people have good incomes. Research shows that when people hit 65 years of age, their likelihood of food insecurity drops dramatically⁶, and self-reported mental health improves7. The reason is that people are entitled to old age security and guaranteed income supplement when they turn 65. For people who are currently on welfare, for example, the seniors' benefits will more than double their income. They'll also get Pharmacare, which somebody who is trying to make ends meet through precarious work probably doesn't have. When we have publicly funded programs, like old age pensions, that look after people and provide an income floor, it makes a difference.

In terms of prevention strategies, we need to look at people under the age of 65 and ask, "What are the conditions that predispose them to food insecurity?" and "What can we put in place to make sure nobody falls so far down?" There are many policies at the provincial and federal level that determine income. If we are serious about getting to the root causes of food insecurity, we need to see how we can insulate people from extreme levels of income inadequacy.

For more information on food insecurity and Dr. Tarasuk's work, please visit: https://proof.utoronto.ca/.

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The relationship between food insecurity and mental health may not be as apparent as the relationship between food insecurity and physical health. What do you think contributes to the way we perceive these two public health issues?

level of overlap. We also saw a very strong

relationship in household food insecurity

and the use of mental health services in

Ontario. The more severe the food insecurity

in a household, the greater the likelihood of

due to mental health problems isn't high-

that's fairly an extreme event. But people who

are food insecure, particularly people who are

severely food insecure, were much more likely

to be hospitalized for mental health reasons

than other groups.

Our instinct is to think of food insecurity as a food problem, so the manifestation should be related to poor nutrition. For sure, there's a negative relationship between food insecurity and dietary intake, but what's become clear over the years is that the stress of food insecurity and the social isolation that characterizes this condition is very damaging to mental health. Day in and day out, individuals in food insecure households are living in this beaten down way where they are isolated by their deprivation. If they have children in their household, the pressure on them to try to make ends meet is phenomenal.

One of the things that we have come to appreciate is when someone is food insecure, we are identifying fairly significant levels of deprivation in the context of financial constraints. If they are struggling to put food on the table because they cannot afford to, they are also struggling to pay their rent, transit, or shoes for their kids. Someone who has a mental health problem may not be able to manage it as well as those who are food secure; they are not able to afford a therapist, pay for transit to access treatment that is

LOOKING AT EATING DISORDERS THROUGH A CLINICAL LENS

FARINAZ GHODRATI & ASHLEY BO ZHANG

AN INTERVIEW WITH DR. DANIELLE MACDONALD

r. Danielle MacDonald is a clinical psychologist registered with the College of Psychologists of Ontario. She completed her Ph.D. at Ryerson University, her clinical psychology residency at St. Joseph's Healthcare Hamilton, and a postdoctoral fellowship at the University of Toronto, Department of Psychiatry. Following her postdoctoral work, she started her current position as a psychologist at the University Health Network (UHN) Eating Disorder Program and an Assistant Professor at the University of Toronto, Department of Psychiatry.

Your primary research interest is the field of eating disorders. What drew you to this area of research?

When I was considering grad school, I knew that I was interested in clinical psychology and specifically learning more about women's mental health. As a graduate student pursuing clinical psychology, I learned more about research on eating disorders and body image through working with my two co-supervisors. Learning more about the complexity of eating disorders further piqued my interest in studying the evidence-based treatment of eating disorders.

Can you give a brief overview of your current research projects?

My research generally focuses on the process of how individuals make behavioural changes during eating disorder treatment, and how we can optimize treatments to facilitate behaviour change. I am also interested in the role of emotions and emotion regulation in eating disorder treatment.

I have a few different projects underway. One of our current studies is interested in how

individuals implement the skills they are learning in eating disorder treatment, and understanding if adopting new coping skills more quickly, relates to faster improvement of eating disorder symptoms. In this study, we are using a method called "ecological momentary assessment" that uses a smartphone app to gather real-time data over a 4-week period about participants' emotions, use of skills, and eating disorder behaviours in their natural environment. This method allows us to examine nuanced temporal relationships between these variables.

What are the most important risk factors for eating disorders?

There is no single factor that causes eating disorders; but rather, they appear to develop as a result of interactions between multiple risk factors. Having one particular risk factor does not definitively lead to an eating disorder and having an eating disorder does not mean one necessarily has every risk factor. For example, there are biological and genetic risk factors that predispose some people to eating disorders. There are also personality characteristics that put one at a greater risk, including perfectionism, and having a greater tendency to experience negative emotions. There are also cultural and behavioural factors associated with eating disorder risk. One of these is the internalization of the thin ideal. We all see idealized body images in the media, but some people take these images in and really start to regard them as very important. People who start to believe that it is important to look like the idealized bodies depicted in media may start to engage in behavioural changes to have their bodies align with that ideal. Relatedly, dieting can also be a risk factor for eating disorders. Although certainly not everyone who diets will develop an eating disorder, for some people, dieting can increase the risk of developing an eating disorder, particularly if other risk factors are

What is the current treatment for eating disorders?

The treatment that has shown to be the most effective for adults with eating disorders is called cognitive behavioral therapy (CBT). CBT is a present-focused treatment aimed at changing the behavioural and thinking patterns that keep the eating disorder alive. CBT is the approach taken in our intensive Eating Disorder Program at UHN. Some of the key interventions of CBT for eating disorders include learning how to establish a pattern of eating regular meals and snacks, eating enough food to meet your body's nutritional needs, and eating foods from a variety of food groups and categories. Through CBT, one can also learn skills to cope with the emotions and urges behind common eating disorder behaviours such as binge eating or vomiting.

What would you say is the biggest misrepresentations in the general population regarding eating disorders?

What some might find unexpected is that the stereotypes of who develops eating disorders are inaccurate. There is a longstanding stereotype that eating disorders mainly affect young, middle-upper class, Caucasian girls and women. In actuality, eating disorders can affect anyone of any age, race, socioeconomic status, sexual orientation, or gender. Several recent large-scale prevalence studies in the U.S. have clearly shown that eating disorders can affect people of all demographic groups. We also know that eating disorders can happen all across the weight spectrum. In other words, people with eating disorders do not all look



the same way, and you cannot tell whether or not someone has an eating disorder simply by looking at them. The National Eating Disorder Information Centre (NEDIC), a Canada-wide resource centre located at UHN, has been working to raise awareness about the fact that eating disorders can affect anyone. I hope that as the general public learns more about this, it will help break down the stigma.

Another myth is that many people believe that eating disorders are a choice or diet that has gone awry, not realizing that in fact eating disorders are serious mental health conditions. This line of thinking invalidates the struggles of individuals with eating disorders. Together, these misunderstandings and the general stigma may prevent people from seeking the professional help they need. In addition to being serious mental health concerns in their own right, eating disorders can also lead to a variety of medical

complications, and people struggling with eating disorders may also be experiencing depression, anxiety, substance use disorders, or other mental health concerns. In fact, more people die of eating disorders compared to any other mental health problem. It is crucial that as a society we recognize the seriousness of these problems.

Do you have any tips for the student population specifically when it comes to eating disorder prevention and treatment?

One suggestion I would make for students is doing your best to maintain balance in your eating habits. Try to eat regular meals and snacks, and eat a variety of foods without putting them into "good" or "bad" categories. And if you notice that you are becoming distressed about your body image or eating habits, undergoing excessive weight loss, or are starting to engage in more extreme behaviours

such as significant food restriction, excessive exercise, or binge eating and purging, reach out to your family doctor or the on-campus clinic or counselling centre for help.

Do you have any advice for students starting out in your field?

I think it is important for students to keep an open mind and seek out different experiences and opportunities in order to find out what interests you. The other thing that I think is really important is to do your best to maintain balance. "Work-life balance" can be challenging, especially for students, but striving to have balance in your life can help with stress management and managing your responsibilities effectively.

Edited by Rahul Rana & Jeffrey Lynham



THE SPARK PROGRAM: AN ON-CAMPUS WELLNESS INITIATIVE FACILITATED BY THE FACULTY OF KINESIOLOGY & PHYSICAL EDUCATION

JEFFREY LYNHAM

AN INTERVIEW WITH DANIELLE LAWRENCE

anielle Lawrence is the Practice Coordinator for UofT's Secondary Prevention and Rehabilitation Kinesiology (SPARK) program, an on-campus program facilitated by the Faculty of Kinesiology and Physical Education. SPARK is a 10-12 week program, where UofT students experiencing high stress or mental health concerns are given the opportunity to work one-on-one with a student in the Master of Professional Kinesiology (MPK) program, to execute an exercise plan (developed by MPK students) based on their goals, health, and activity levels.

Over the past four years, SPARK has partnered with Health & Wellness, along with embedded wellness counselors in various faculties, to provide and promote

this service to UofT students. I sat down with Danielle to learn more about the SPARK program.

How did the SPARK program first get started?

SPARK is part of the MPK Program offered at UofT. Within this Program, MPK graduate students have the option to select one of four in-house placements, with SPARK being one of them. The initiative behind these placements was for students to get first-hand experience in working with different populations before they do their external placements, to enhance their clinical skills, and for career development. Our MPK students get the opportunity to work with two populations throughout

the duration of the SPARK Program: those living with a chronic disease and UofT students living with mental health concerns. SPARK has been running for four years now. We're still learning and growing but I'd say over the last year and a half it's grown a lot!

Could you take our readers through what it's like to go through the program from beginning to end?

Both UofT students and those from the community living with a chronic disease are referred to the program by a health care provider. This can be a family doctor, physiotherapist, psychologist, social worker, or student advisor. Once I receive the referral and complete all necessary

screening questionnaires and enrolment forms, I then pair them with an MPK student. I try to be deliberate with my pairing because having a good match is important for both participants and MPK students and their learning. Once that's in place, the participant will meet their MPK student and they complete an initial assessment. This initial assessment includes baseline fitness testing, goal setting, building rapport, and ultimately getting a sense of what the participant wants to get out of the program. After collecting all of that information, our graduate students can then create and implement an exercise plan for them over a 10-12 week period. Participants have the opportunity to exercise with their MPK student at the Athletic Centre, Goldring Centre, or Hart House, using machines in the weight room, doing a class, playing squash, or whatever activity they both choose. Throughout the program, our MPK students complete goal setting and weekly check-ins to make sure that both parties are on track. At the end, our students complete a final assessment, where we repeat all of the baseline tests to

note any changes or progress made over the last three months. Each participant receives a printout and a discharge summary of how they have done throughout the program.

Each participant also receives a journal where they can write in their weekly exercise programs. This enables them to have something tangible, which they can then take with them to help continue the exercise routine they have established during SPARK. Our goal is to not only help participants achieve their health and wellness goals, but to help improve their health literacy and to become more independent and confident when completing exercise in the community.

Do these exercise programs require gym equipment, or can a participant do these exercises at home?

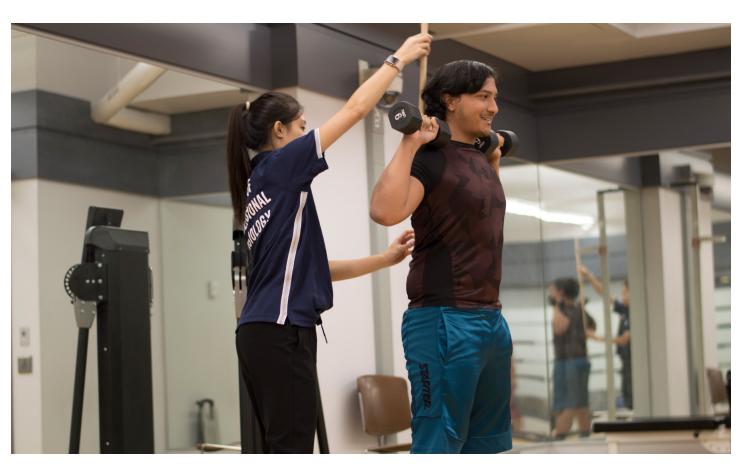
Whether our participants have access to the Athletic Centre and other gym facilities, or whether they want to use exercise bands, or no equipment, or anything at home, we ensure that our exercise plans cater to that.

We want to give our participants the skills needed for implementation and execution of their exercise plan. We want people to succeed and thrive. Having all of that information is what's going to help.

How is progress measured?

Progress is directly measured at the end of the program with the use of our fitness assessments, which are completed at the beginning and the end of the program. In addition to physical wellness, we have an emotional wellness questionnaire, which is completed on a weekly basis. This wellness questionnaire asks participants about items such as stress levels, sleep quality, and fatigue/soreness. By having participants fill in the questionnaire every week, they can see how they are improving. If they're not improving, we can ask them what may have changed.

Goal setting is another way we measure progress. Every few weeks our MPK students ask their participants how things are going. We ask them, "What's working



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well? What could be changed?" At the midpoint of the program, we complete a formal sit-down goal-setting session to address their baseline goals and ask, "These were the goals that we had set when we first started. How are they going for you now? What are some things that we can do to support you with that? Are there any barriers that you feel are in the way of that? Are there any new goals you have?"

Since the MPK students are students themselves, they can easily relate to our UofT participants. If someone has three exams in one week, they say, "That's really tough, I get it, but you made it in here, and that's amazing. Let's try to work out." And that's a huge accomplishment. It's nice that there's that rapport with the students.

What advice would you give to someone who says they are too busy to work out?

My first piece of advice would be don't be too hard on yourself. It's very easy for us to be self-critical and to beat ourselves up if we've missed a week or two of exercise. Life happens. We all have those moments where we lose track of the routine that we've created for ourselves, and that's okay. Don't get down on yourself and try it again the next week.

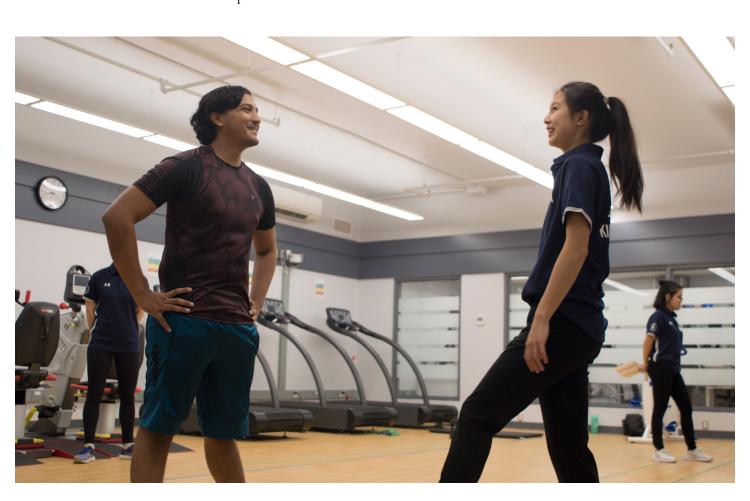
The next piece of advice would be to think of exercise as a priority in your life, just like going to school or brushing your teeth. This may not work for everyone but there are two things that I do that I find helpful when I need that motivation to get out. One is writing it down. I have an agenda, and when I schedule in a workout, I am more accountable, and I will stick to it. Second, it also helps to have a gym or workout friend to make me accountable. Also, if I don't have someone to go to the gym with, I enroll in a class. If I paid or signed up for a spin class, I will likely get out the door and do it.

Has there been a success story that has really stood out to you?

A few years ago, there was a UofT student who was having challenges just coming to the program. They were missing many sessions, and they were having a very difficult time. At about the halfway point, or three quarters into the SPARK program, this participant began to attend the program more regularly, even if only to walk around the track with their MPK student. Upon completion of the program months later, I received an email from the MPK student noting that they now regularly see their previous UofT SPARK participant exercising all the time! That person, who previously struggled to get out of bed to come to our program, was able to find something that they enjoyed and were now doing it consistently and feeling great. That was really nice to hear.

For more information about the SPARK program, send an email to spark@utoronto.ca.

Edited by Emma Syron, Kate Rzadki

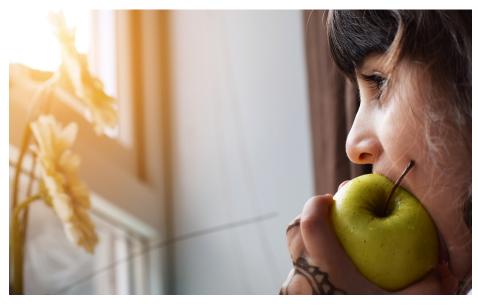


ORTHOREXIA: FOLLOWING A HEALTHY DIET VS. DIET TAKING OVER YOUR LIFE

JENNIFER LEE

Ediet have pervaded our society. It is normal to want to maintain a healthy diet and lifestyle. But is it possible to take this too far? Could "healthy eating" ever be detrimental to our health? The answer is yes; one such example is the rise of a new eating disorder: orthorexia.

First introduced in 1997 by Dr. Stephen Bratman, orthorexia refers to an obsession with healthy and proper nutrition1. Although orthorexia is not an officially recognized eating disorder by the American Psychiatric Association, has been attracting the interest of researchers, health professionals, and the public. Similar to other eating disorders, orthorexia is related to harmful behaviours associated with paying too much attention to consuming 'healthy' food. Orthorexia is thought to begin with a general interest in healthy eating. This interest, however, can escalate to an unhealthy obsession over time. What used to be a choice to lead a healthy life turns into an unhealthy obsession. Eventually, the person's restrictive eating starts to negatively impact their health and social functioning².



The important distinction between healthy eating and orthorexia is that individuals with orthorexia will likely engage in harmful behaviours due to fear and worries about health, eating, and quality of food. According to Dunn and Bratman, there are two proposed diagnostic criteria of orthorexia3. First, individuals with orthorexia will likely have an obsessive focus on "healthy" eating based on unrealistic beliefs about ideal health, physical purity, enhanced fitness, and avoiding illnesses linked to harmful behaviours. Second, they will have a "healthy" eating belief system impairing other aspects of their lives, including physical and mental health as well as social and occupational functioning3.

As a non-recognized eating behaviour, we do not know much about orthorexia. How many people are affected by it? What are the risk factors? Who are the vulnerable groups? These pieces of information are crucial for acquiring a better understanding of the root causes of this

disorder. Also, the lack of scientific knowledge about orthorexia hinders the development of appropriate prevention and treatment strategies.

What can we do? Our desire to maintain a healthy diet is rather natural, however, a healthy diet should have a positive impact on both physical and mental health. It is our right to choose the foods we eat, but our food choices should not have negative effects on our quality of life or emotional state. We should use our knowledge on nutrition, diet, and health to make beneficial choices and to improve our physical and mental health; it should not take control of our day-to-day life. If you or a loved one shows signs of orthorexia, please seek help. As with other eating disorders, early intervention has shown to significantly increase chances of recovery and minimize negative consequences.

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Edited by Negin Rezaie & Kate Rzadki



NUTRITION IN THE 21ST CENTURY: NAVIGATING MYTH FROM REALITY MARIJA ZIVCEVSKA



It seems that every time we open social media we are bombarded with a new health trend that promises to give us glowing skin, lose weight, and feel amazing. But what evidence exists to back up these claims? In this article, we'll examine three popular trends to see whether they are worth incorporating into our daily routine.

Juice Cleanses

Juicing is portrayed as the ultimate regimen for optimal health, marketed to detox, reboot and reenergize the body. Juicing in essence, is an extraction process that separates the liquid from fruits and vegetables while simultaneously discarding the fibrous pulp. While it is a great way to increase daily consumption of fruits and vegetables, particularly for individuals that don't enjoy the taste of these foods, is it worth the cost and extra effort?

Let's do some simple math. One medium apple contains approximately 4 g of fiber, whereas an 8 oz. glass of apple juice contains approximately 3-4 apples, and virtually no fiber. This is 12-16 g of fiber we are missing out on by choosing the liquid equivalent! Fiber is important to regulate blood sugar, activate satiety responses, and works to promote gastrointestinal health'. Moreover, daily fiber consumption reduces the risk for stroke, hypertension, cardiovascular heart disease, diabetes, and obesity'. Interestingly, high fiber whole foods have been shown to increase thermogenesis, thus increasing postprandial

energy expenditure by 50% relative to refined food consumption of equivalent caloric content². So because of the fiber, whole foods require more work to digest, thus burn more energy during the digestion process. By removing the fibrous pulp through juicing, we miss on all of the additional benefits fiber has to offer!

Juices are often promoted as a temporary cleansing program whereby other food groups are restricted for a period of time. Some plans incorporate small snacks or meals in addition to the juices while others promote a liquid-only diet that lasts anywhere from three days to three weeks. Although this may seem like an enticing way to reset your body after overindulging in calories, there is little scientific evidence that shows any real benefit to following such programs (see below). Instead, doing so may cause blood

sugar spikes throughout the day and leave you feeling moody, irritable, and hungry. Moreover, because they often limit caloric intake, if used over a prolonged period of time, they can slow down your metabolism.

While prolonged juice fasts are not recommended, and juices should not comprise the entirety of your daily fruit and vegetable intake, they are fine if used in moderation. At the end of the day, smoothies remain as a superior option if you prefer to drink your spinach.

Detox Teas

A trend with similar claims to juicing are detox teas, which have gained extreme popularity over the years. Detox teas are often advertised as part of a week or even a month regimen, to be incorporated with healthy eating and exercise. Where detox teas differ, however, is that they often contain large amounts of caffeine, which as a diuretic, causing you to expel water. Two cups of liquid approximates to a pound on the scale, so even without any fat loss, you will look and feel lighter. What's more, many also have a laxative effect, increasing bowel movements to temporarily give you a flatter abdominal region (a common ingredient that mediates this is senna). Although laxative teas are fine if used for a short period of time, continual use can cause electrolyte imbalance, dehydration, and diarrhea. Moreover, the specific ingredient ratios in different detox



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blends are not well studied, so it's difficult to assess effectiveness, possible interactions, and safety of prolonged use.

For any product, whether it is juices or teas, the general concept of detoxification is not backed up by science—we have an internal detoxification mechanism mediated through the digestive tract, liver, lungs, and kidneys. As such, it is important to support this natural process by drinking plenty of fluids, eating a diet rich in fiber, and exercising regularly. A temporary fix cannot undue a bad lifestyle, and like most products that seem too good to be true, specialty teas cannot perform miracles. Having said that, tea in general is a great addition to one's diet if used as a supplement. Studies suggest that green tea may help lower cholesterol and even prevent stroke and cardiovascular disease3. To learn how to incorporate green tea in baking, check out our "Matcha Muffin" recipe at the end of this issue!

<u>Turmeric</u>

Another popular trend you may have come across is turmeric (*Curcuma longa*), a rhizome part of the ginger family. Used for centuries in food preparation and traditional Ayurvedic Medicine, turmeric has gained popularity in Western culture in recent years.

The turmeric plant contains a polyphenol called curcumin, which gives it its signature yellow colour and is associated with a wide range of health properties4. Studies suggest that curcumin blocks NF-kB, a signaling molecule that turns on pro-inflammatory genes5 and has comparable therapeutic potential to some antiinflammatory drugs without any side effects6. It also serves as a powerful antioxidant, both by neutralizing free radicals and by enhancing the activity of antioxidant enzymes in the body^{7,8}. Moreover, it boosts brain-derived neurotrophic factor (BDNF), a type of neurotrophic factor that supports neuronal health and development9. Interestingly, low levels of BDNF are associated with depression and Alzheimer's disease^{10,11}; therefore, supplementing with turmeric may have some neuro-protective properties. Clinical studies have reported that daily consumption of turmeric is not associated with toxicity, with no significant



adverse effects seen following a prolonged oral dose of up to 8 g/day¹². Given this data, it seems that turmeric is worth a try. If you are up to the challenge, you can try adding this spice to smoothies, soups, stir-frys or even consume it as a hot beverage with milk or water.

At the end of the day, with every health trend we come across, it is important to take time to critically assess the literature instead of passively accepting marketing as gospel. Objectivity and social media are often contradictory, so the onus falls on the consumer to filter through the "fluff" and make conscious decisions that best suit individual needs.

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Edited by Zsuzsa Lindenmaier & Jeffrey Lynham

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MINDFEST.CA

high schools, and amongst the general public has been an increasingly important topic in recent years, often making front page news. In an effort to reach out to the community and go "beyond the ivory tower," Mindfest was conceived as a way to begin a conversation about mental health, in the setting of a mental health and wellness fair open to everyone to learn, ask questions, and feel welcome. We do not have to wait for "bad news" to talk about mental health. In fact, it can be fun, inspirational, and rejuvenating!

Launched in 2013 as part of an anti-stigma initiative, Mindfest has become an annual event organized by the Department of Psychiatry at University of Toronto to promote awareness, dialogue, and increased understanding about mental health and mental illness. Reaching over 500 people annually, its goals are to decrease stigma related to mental illness, share advances in the

mental health field, and increase awareness of available resources and services on campus and in the community. Geared towards high school students, university students, and the general public, Mindfest offers lectures by psychiatric experts and people with lived experience, opportunities for experiential learning, and booths in the beautiful Great Hall at Hart House to learn more about available resources in the community. One of our main goals is fostering dialogue on everything from mental health promotion to current treatment approaches for mental illness, exploring new perspective and solutions together.

The topics covered at Mindfest are diverse, from challenges faced by youth and adolescents (bullying, technology, autism, ADHD); to understanding the experience of and recovery from depression, bipolar disorder, anxiety, and schizophrenia; to issues with addictions, dementia, and suicide. The perspectives

are just as wide, covering everything from neuroscience research to sociocultural issues facing indigenous communities and Métis, immigrants and refugees. Mindfest also addresses everyday mental health issues that impact us all, like psychological health in the workplace. We have had panels on spirituality and mental health, and speakers and demonstrations from the intersection of the arts and mental health including theatre, music, film, and painting. The formats are deliberately diverse to engage everyone's learning style, from didactic to experiential and from scientific to artistic. We are excited to have inspiring speakers, multidisciplinary professionals, people with lived experience, families, students, and community partners all taking part in planning and putting on the event together.

Over the years we have partnered with other universities including OCAD, Ryerson, and York; held "mindfulness walks" connecting



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downtown campuses, connected with many community partners, and planned some fabulous film nights with Workman Arts at TIFF Lightbox and on campus.

We are also grateful to have enthusiastic participation from healthcare institutions, community agencies, and other community services every year. Our interactive booths and exhibitors from previous years have included: Centre for Youth Bipolar Disorder, Sunnybrook Health Sciences Centre; Canadian BFRB Support Network; Rise Asset Development; Hong Fook Mental Health Association; Toronto Public Health - Healthy Schools and Substance Misuse Prevention; Big White Wall; A-WAY Express; Ontario Expressive Arts Therapy Association; Family Support Program – Michael Garron

Hospital; Right Now; National Eating Disorder Information Centre (NEDIC); Starts with Me Inc; Sunnybrook Family Navigation Project; Centre for Depression and Suicide Studies – St Michael's Hospital; and Connecting the Dots - Inner City Family Health and others.

A wide spectrum of high caliber keynotes and seminar leaders have offered us their unique knowledge, insights, and experiences, greatly contributing to our mental health dialogue. They enlighten us not only at an intellectual level, but also engage and move us deeply, cultivating more compassion and understanding. Some of our past notable speakers have included marathon runner and mental health advocate Jean Paul Bedard (see his inspirational 2017 talk on Cultivating

Resilience on our website), playwright and actress Colleen Taffe, Parkdale-High Park M.P. Arif Virani, writers Jan Wong and Camilla Gibb, Dr. Tom Ungar with TVO's Steve Paikin, sports journalist Michael Landsberg, and many more.

Please join us on Wednesday March 11th, 2020 at Hart House on the Downtown UofT campus for this exciting and educational event. We will have keynote speakers from Stella's Place, Jack.org, and faculty from the Department of Psychiatry including Drs. Juveria Zaheer, Andrea Levinson, and Mark Sinyor, as well as interactive sessions for high school and university students to discuss transitions to university, yoga, and qi-gong sessions. If you would like to contribute to this event in any way, please feel free to contact us. Together, we can decrease stigma, increase understanding about mental health, and promote our collective well-being!

Take a look at our website at www.mindfest.ca for program details, video clips, and more! Mark down your calendars and we can't wait to see you there!







ABOUT THE AUTHORS

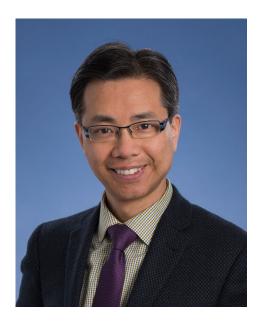


LISA ANDERMANN, MPHIL, MD, FRCPC

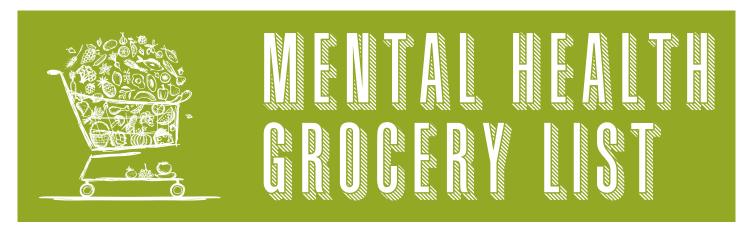
Dr. Lisa Andermann is an Associate Professor in the Department of Psychiatry at the University of Toronto and psychiatrist at Mount Sinai Hospital, where she works in the Psychological Trauma Clinic as well as the Ethnocultural Assertive Community Treatment Team. Dr. Andermann is a consultant psychiatrist for the Canadian Centre for Victims of Torture. She is co-founder of the New Beginnings refugee clinic at CAMH. Her main areas of interest in research and teaching focus on cultural psychiatry. She has been part of the Toronto-Addis Ababa Psychiatry Program (TAAPP) since its inception in 2003, assisting in the development of the first psychiatry residency training program in Ethiopia. She has an undergraduate degree in Anthropology from McGill University, where she completed her medical studies, and a graduate degree in Social Anthropology from Cambridge University.

KENNETH FUNG, MD, FRCPC, MSC, FAPA, FCPA

Dr. Kenneth Fung is a Staff Psychiatrist and Clinical Director of the Asian Initiative in Mental Health Program at the Toronto Western Hospital, University Health Network, and Associate Professor with Equity, Gender, and Populations Division at the Department of Psychiatry, University of Toronto. His primary research, teaching, and clinical interests include both cultural psychiatry and psychotherapy. He is the Block Co-coordinator of the Cultural Psychiatry Core Seminars for psychiatry residents at the university. He is the seminar co-lead and psychotherapy supervisor in Cognitive Behavioral Therapy (CBT) at the University Health Network, and teaches and conducts research in Acceptance and Commitment Therapy (ACT). He has been involved in community-based research projects related to HIV, mental health stigma, immigrant and refugee mental health, and parents of children with Autism Spectrum Disorder. He is psychiatric consultant to the Hong Fook Mental Health Association and is involved in various mental health promotion and education projects as well as cultural competence training in the community.



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The foods on this list are good sources of Omega 3 Fatty Acids, Folate, Folic Acid, Vitamin D, or Vitamin B12—all of which are backed by scientific research to affect brain health (but not replace treatment for mental health disorders). They are best with minimal processing, and those that require cooking should be prepared in the oven or on the grill rather than frying. Don't feel pressured to buy all of the items on this list, but try to pick a few from each category if possible for a well-rounded diet with mental health in mind.

Meat, Poultry, Seafood

Salmon

Trout

Mackerel

Anchovies

Sardines

Albacore Tuna

Yellowfin Tuna

Cod

Perch

Clams

Chicken

Turkey

Grass-fed Beef (small amounts)

Grass-fed Lamb (small amounts)

Dairy

Eggs

Milk (Vitamin D fortified)

Non-Processed cheese

Grains

Whole Oats/Whole Grain Oatmeal

Whole Grain Bread (Rye, Spelt or Whole

Wheat)

Ouinoa

Brown Rice

Barley

Buckwheat

Bulgar

Unsweetened Whole Grain Breakfast Cereals

(e.g. muesli)

Beans and Legumes

Chickpeas/Garbanzo Beans

Sovbeans/Edamame

Kidney Beans

Peas

Black-eyed Peas

Lima Beans

Black Beans

Nuts and Seeds

Walnuts

Almonds

Pistachios

Chia Seeds

Flax Seeds

Sesame Seeds

Sunflower Seeds

Peanuts

Fruits

Oranges

Strawberries Raspberries

Avocados (Yes, they are a fruit!)

Bananas

Tomatoes

Apples Mangos

Vegetables

Spinach

Brussels Sprouts

Mustard Greens

Collard Greens

Kale

Chard

Cabbage

Pumpkin

Sweet Potatoes

Asparagus

Squash

Onions

Romaine Lettuce

Broccoli

Cauliflower

Celery

Dressing/Seasoning

Fresh Herbs (Basil, Cilantro, etc.)

Extra Virgin Olive Oil

Apple Cider Vinegar

Balsamic Vinegar

Garlic

Probiotics

Kefir

Kombucha Tempeh

Sauerkraut (unpasteurized)

Kimchi (unpasteurized)

Non-sweetened Yogurt (with live or active cultures)

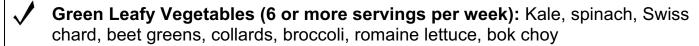




The MIND Diet

The MIND diet focuses on food items that are linked to healthy brains and minds. If these brain healthy foods are eaten often, there is a lower risk of Alzheimer's disease and cognitive decline.

Eat More Often



Other vegetables (1 or more servings per day): Asparagus, bell peppers (orange, green, yellow, red), tomatoes, mushrooms, garlic, eggplant, cabbage, carrots, sweet potato, etc.

1 Serving = 1 cup raw, 1 whole vegetable, or ½ cup cooked



Tip: Some nutrients such as beta-carotene and lutein are absorbed better when cooked

Berries (2 or more servings per week): Blueberries, strawberries, raspberries, blackberries.

1 Serving = ½ cup



Tip: Studies show that blueberries and strawberries are the most beneficial for brain health

Nuts (5 or more servings per week): All types of nuts (such as peanuts, brazil nuts, walnuts)

1 Serving = $\frac{1}{4}$ cup



Tip: Nuts are high in vitamin E and healthy fats which are linked to slower cognitive decline and improve brain health

Whole grains (3 or more servings per day): Whole grain breads (1 slice), whole grain pastas (½ cup cooked), brown rice and quinoa (½ cup cooked), whole grain ready-to-eat breakfast cereal (1 cup)



Tip: Whole grains are great for the cardiovascular system which pumps blood, oxygen and nutrients throughout the body.



Legumes (4 or more servings per week) such as: Red kidney beans, black beans, chickpeas, brown beans Serving = ½ cup cooked



Tip: Legumes are full of low glycemic carbohydrates which provide the brain with steady amounts of energy.



Fish (1 or more servings per week): Salmon, trout, herring, and sardines. 1 Serving = 3 ounces cooked



Tip: Oily fish contain high amounts of DHA which is an omega-3 essential for proper brain function and has been linked to improved memory, thinking, and slow cognitive decline



Poultry (2 or more servings per week): Chicken and turkey 1 Serving = 3 ounces cooked



Wine (1 serving per day): Components in wine, particularly red, have been found to reduce the risk of Alzheimer's disease. Wine can decrease inflammation and help maintain memory.



*Too much alcohol can damage the brain and is associated with certain types of cancer. Wine is an optional choice in the MIND diet.

Eat Less Often



Red meats (4 or less servings per week): Beef, lamb, pork, etc.



X

Pastries/sweets (less than 5 times per week)





Fast/fried food (less than once per week)



X

Cheese (less than once per week)

Why? → Due to its saturated fat content



X

Butter/hydrogenated (stick) margarines (less than 1 tablespoon per day)



Instead, use olive oil as your primary oil (soft margarines may be used in moderation)

Developed by: Katey Davidson, BScFN candidate at Western University (Brescia University College), and Janis Dale, RD and Patti Hoddinott, RD Last revised: August 26th, 2015

HEALTHY AVOCADO MATCHA MUFFIN RECIPE

MARIJA ZIVCEVSKA

Prep Time: 10 minutes Cook Time: 15 minutes Serving: 12 muffins

Ingredients

- 1 large ripe avocado
- ½ cup honey
- ¼ cup almond milk
- 1 tbsp fresh lemon juice
- 1 large egg*
- 1 tsp vanilla extract
- 2 cups oatmeal flour *
- 1 and ½ tbsp matcha powder
- 1 tbsp flaxseed meal
- 1 tbsp baking powder
- Pinch of salt
 - ½ cup semi-sweet chocolate chips

+ Instructions

- + 1. Preheat oven to 350°F (177°C). Grease muffin pan with
- + small amount of coconut oil, or line with muffin liners.
 - 2. In a blender, mix avocado and honey until well incorporated. Add almond milk, lemon juice, egg, and vanilla extract.
 - 3. In a separate bowl, mix all the dry ingredients together (oatmeal flour, matcha, flaxseed, baking powder and salt).
 - 4. Gently incorporate the dry mixture into the wet ingredients. Stir chocolate chips into the mixture.
 - 5. Slowly scoop the mixture into the prepared muffin tins and bake for approximately 15 minutes, or until a toothpick inserted into the centre of the muffins comes out clean.

Tips:

- To make the recipe vegan, simply substitute the egg for a flax egg. To make a flax egg, mix 1 tbsp flaxseed meal with 3 tbsp of water. Let sit for 15 minutes to thicken up.
- To make oatmeal flour, simply pulse oats in a blender until ground into a powder-like consistency.
- Get creative! You can add nuts, seeds or dried fruit to these muffins to change the flavour profile.

FUN FACT

Matcha is a member of the green tea family, more specifically a powder made from ground *Camellia sinensis* plant. But how does it differ from more traditional green tea? The answer lies in how the plant is grown, specifically how much sunlight exposure it gets. Plant bushes are grown in shade 20-30 days prior to harvest. This increases chlorophyll levels, deepens the color and increases the amino acid content of the plant. Following harvest, the leaves are then ground into a fine powder. There are several grades of matcha based on the quality, color, fineness of the powder, and how it is processed; these are most broadly categorized into ceremonial and culinary grade.

Edited by Emma Syron & Emily Deibert



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SIMPLE KOMBUCHA RECIPE

MARIJA ZIVCEVSKA

Prep Time: 30-40 minutes

Serving: 8

Ingredients

- 1 L Boiling Water
- 1 L Room Temperature Water
- 150 g sugar
- 4 green tea bags
- SCOBY + Starter Liquid (Symbiotic Cultures of Bacteria and Yeast)*

*You can purchase a SCOBY + starter liquid on Amazon for approx. \$15-20, or get it from a friend!

Other Items:

- Breathable cotton cloth (can also use a paper napkin)
- 1 Gallon glass jar
- 1 rubber band

Instructions

- 1. Steep the tea bags in boiling water for 20 minutes.
- 2. Once the tea is ready, discard the bags, and stir in sugar until fully dissolved.
- 3. Transfer the mixture into the jar, and add room temperature water. Don't fill the entire jar with water, we need some space for the next step! Let the whole mixture cool to room temperature.
- 4. Add SCOBY and starter liquid. Cover the jar with a breathable cloth and secure with a rubber band.
- 5. Store your kombucha in a cabinet away from direct sunlight. The preferable temperature to breed the bacteria is approximately 23-29°C.
- 6. Wait and taste. This is probably the hardest step of all. As the days go by, you will see the SCOBY grow, the liquid turn cloudy, and you may even notice some yeast strands dangling from the SCOBY itself. This is all normal! The fermentation process is slow and can take anywhere from 7-20 days. It is important to taste the liquid periodically until it reaches your desired flavor it should be a bit sweet and a bit sour; aim for a balance! I personally like to leave it for 10 days.

7. Once your kombucha is ready, make sure to remove the SCOBY: strain the liquid and reserve approx. 1 cup of the kombucha for your next batch (this will be your starter liquid). Repeat!

Tips:

- Feel free to customize the kombucha to your liking! You
 may use any unflavored and non-herbal tea such as green,
 black, or white tea to make this recipe.
- You can also experiment with various sweeteners such as honey or maple syrup once you get comfortable with the recipe. I find that white cane sugar works best for me



Edited by Emma Syron & Emily Deibert

TIPS TO EAT HEALTHY DURING EXAMS

JESSICA SHI

Meal prep

Vegetables:

- · Chop your vegetables on weekends
 - » Vacuum seal to keep them fresh
- Buy ready-to-serve vegetables

Common excuses for not doing meal prep:

- Too busy
- Too time-consuming
- · Not good at cooking
- Don't feel like it

Proteins:

- Always have milk (choose plant-based milk if you are lactose intolerance), yogurt, and eggs in your fridge
- Divide your meat into multiple servings
 - » Freeze them for future use
- Buy ready-to-serve meat (e.g., bacon, sausages)

How about a little tweak to your mindset? Think of meal prep as:

- · A study break
- · A way to keep fit
- · Part of budgeting
- Part of your daily life

Carbs:

- Pre-cook your staples (e.g., rice, pasta, quinoa)
- Always have easy-to-cook carbs at home (e.g., bread, cereals)

Snacks:

- · Nuts, seeds, legumes
- · Seasonal fruits
- Protein bars (remember to check nutrition table at the back!)

When eating out:

- Stop eating if you feel full (trust your guts!)
- Go to restaurants that serve balanced meals (enough vegetables, sufficient proteins, fats, and carbs)
- Eat with friends & family: de-stress + social (two birds in one stone!)

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+ 37 + +

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