



Agenda for

Heather Finley, MS, DCN RDN, CEDRD and Quinn Nystrom, MS, Founder/President - Qspeak and Center for Change National Diabetes Ambassador presenting on

"Gut Instincts"-- The Gut-Brain connection in the treatment of Eating Disorders" and "Eating Disorders & Type 1 Diabetes: A Complicated Relationship"

May 17, 2019

8:00am-12:00pm

Presentation

8:00am- 12:00pm

- 8:00am
 - Check in and Breakfast
- 8:30am-12:00pm
 - Presentation

In this clinical presentation, listeners will learn the connection between the enteric nervous system and mental health. When you are stressed, did you know that your gut bacteria can change? Did you know that suffering from a Traumatic Brain Injury, even something as common as a concussion, within 30 minutes gut permeability increases? There are so many things that impact our gut that then can set off a cascade of events in our bodies. Depression, anxiety, IBS, or one of any number of conditions, are all linked to gut health. When treating patients suffering from these conditions, it is important to consider the gut as a part of treatment. It is called the second brain—for good reason—the gut can send signals and chemicals to change the health of your brain.

In this session we will cover a wide range of fascinating topics including: from the simplest questions such as “Why is it called the gut?”, the role of butyrate in the gut to create new neural connections in the brain, how the gut and brain are connected and the variety of batteries that aid in helping with mood.

Living with type 1 diabetes is complicated enough, but then throw in a dual diagnosis of an eating disorder, and the management of the two becomes tricky. Eating disorders paired with diabetes can be a life-threatening combination. Quinn will discuss her personal journey of seeking recovery, and how healthcare professionals can help guide and support their patients who present with both a chronic illness and an eating disorder.

Outline for "Gut Instincts"-- The Gut-Brain connection in the treatment of Eating Disorders":

1. Overview of the GI anatomy and Microbiome
2. Impact of Digestion under stress and sympathetic/parasympathetic nervous system impact & Impact of Stress on epithelial lining and nutrient absorption (Pasini, 2019; Peter, 2018)
3. Overview of the various bacterial species in the GI tract, and their importance; an overview of dysbiosis and complications that can arise as a result
4. Overview of the communication pathways between the gut-brain (ENS, ANS, Vagus Nerve)
 - A look at communication mediators in the brain and probiotic producers of these neurotransmitters (Finley, 2018; Dolan, 2017)
5. How Gut Diversity impacts mood and overview of BDNF (Cussotto, 2018; Hooks, 2018)
6. HPA Axis response to stress and impact on endothelial lining
7. Discussion about chemicals, foods, medications and lifestyle habits that decrease gut diversity & increase inflammation
8. Overview of micronutrients that increase risk of anxiety/depression and alter mood
 - Mood stabilizing minerals
 - Zinc deficiency and anorexia
9. Food shifts that promote a healthy and diverse gut

Outline for Eating Disorders & Type 1 Diabetes: A Complicated Relationship:

- 1) Describe what life is like for an individual living with Type 1 diabetes.
- 2) Reasons why people with Type 1 diabetes are more at risk for eating disorders.
- 3) Describe the events that occurred to make the switch in thinking between being a victim or a victor with life with ED-DMT1.
 - a. Motivation to seek treatment.
 - b. Describe how recovery is a daily decision that needs to be made with Type 1 Diabetes and an eating disorder.
- 4) Unique challenges for a person who has Type 1 diabetes and an eating disorder.
- 5) Compare and contrast different medical professionals and the approaches they use in interacting with patients, and how those can affect one's life care with ED-DMT1.
- 6) Describe the 5 best communication styles when talking with patients living with diabetes.

- Question and Answer



Format: Presentation

Date: May 17, 2019

Time: 8:00am -12:00pm

Presentation Length: 3 Hours

Type: Lecture, interactive with Question and Answer

Training For: Staff of Hospitals, Medical Centers, Mental Health Clinics: General Medicine Physicians, Psychiatrists, APRN's, Psychologists, Counselors, Dietitians, Nurses, Mental Health Technicians

Presenters: Heather Finley, *MS, DCN RDN, CEDRD* and Quinn Nystrom, *MS, Founder/President - Qspeak and Center for Change National Diabetes Ambassador*

Presentation Title: "Gut Instincts"-- The Gut-Brain connection in the treatment of Eating Disorders" and "*Eating Disorders & Type 1 Diabetes: A Complicated Relationship*"

Brief Description of Presentation:

In this clinical presentation, listeners will learn the connection between the enteric nervous system and mental health. When you are stressed, did you know that your gut bacteria can change? Did you know that suffering from a Traumatic Brain Injury, even something as common as a concussion, within 30 minutes gut permeability increases? There are so many things that impact our gut that then can set off a cascade of events in our bodies. Depression, anxiety, IBS, or one of any number of conditions, are all linked to gut health. When treating patients suffering from these conditions, it is important to consider the gut as a part of treatment. It is called the second brain—for good reason—the gut can send signals and chemicals to change the health of your brain.

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neural connections in the brain, how the gut and brain are connected and the variety of batteries that aid in helping with mood.

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- 1) Describe what life is like for an individual living with Type 1 diabetes.
- 2) Reasons why people with Type 1 diabetes are more at risk for eating disorders.
- 3) Describe the events that occurred to make the switch in thinking between being a victim or a victor with life with ED-DMT1.
 - a. Motivation to seek treatment.
 - b. Describe how recovery is a daily decision that needs to be made with Type 1 Diabetes and an eating disorder.
- 4) Unique challenges for a person who has Type 1 diabetes and an eating disorder.
- 5) Compare and contrast different medical professionals and the approaches they use in interacting with patients, and how those can affect one's life care with ED-DMT1.
- 6) Describe the 5 best communication styles when talking with patients living with diabetes.

Learning objectives for "Gut Instincts"-- The Gut-Brain connection in the treatment of Eating Disorders:

Based on the content of the workshop participants will be able to:

1. Describe the anatomy of the GI tract
2. Explain the communication pathways that connect the gut-brain
3. List causes of gut-brain axis dysfunction and the impact on mood
4. List nutrients and deficiencies that are key players in depression and anxiety

Learning objectives for Eating Disorders & Type 1 Diabetes: A Complicated Relationship:

Based on the content of the workshop participants will be able to:

- 1) Describe the complicated relationship with a person who is diagnosed with ED-DMT1.
- 2) Describe five communication styles to use when talking with a patient with type 1 diabetes and/or an eating disorder.
- 3) List various ways that aid in someone's success and increased self-efficacy when managing ED-DMT1.

Professional Peer Review and Clinical Text Resources and Citations for "Gut Instincts"-- The Gut-Brain connection in the treatment of Eating Disorders:

1. Dinan, T. G., & Cryan, J. F. (2013). Melancholic microbes: a link between gut microbiota and depression? *Neurogastroenterology & Motility*, 25(9), 713-719.
2. Dolan KE, e. (2017). *Probiotics and Disease: A Comprehensive Summary-Part 1, Mental and Neurological Health*. - PubMed - NCBI . *Ncbi.nlm.nih.gov*.
3. Dolan, KE, e. (2017). Dolan KE, e. (2017). *Probiotics and Disease: A Comprehensive Summary-Part 6, Skin Health*. - PubMed - NCBI . *Ncbi.nlm.nih.gov*.
4. Finley, HJ, e. (2018). *Probiotics and Disease: A Comprehensive Summary- Part 8- Gastrointestinal and Genitourinary Disorders*. -PubMed- NCBI. *Ncbi.nlm.nih.gov*.
5. Furness, J. B. (2012). The enteric nervous system and neurogastroenterology. *Nat Rev Gastroenterol Hepatol*, 9(5), 286-294.
6. Galley, J. D., Nelson, M. C., Yu, Z., Dowd, S. E., Walter, J., Kumar, P. S., . . . Bailey, M. T. (2014). Exposure to a social stressor disrupts the community structure of the colonic mucosa-associated microbiota. *BMC Microbiol*, 14, 189.
7. Galley, J. D., Nelson, M. C., Yu, Z., Dowd, S. E., Walter, J., Kumar, P. S., . . . Bailey, M. T. (2014). Exposure to a social stressor disrupts the community structure of the colonic mucosa-associated microbiota. *BMC Microbiol*, 14, 189.
8. Gasta, MG, e. (2017). Dolan KE, e. (2017). *Probiotics and Disease: A Comprehensive Summary-Part 4, Infectious Disease*. - PubMed - NCBI . *Ncbi.nlm.nih.gov*.
9. Gasta, MG, e. (2017). Dolan KE, e. (2017). *Probiotics and Disease: A Comprehensive Summary-Part 5- ENT and Respiratory Conditions*. - PubMed - NCBI . *Ncbi.nlm.nih.gov*.
10. Hawks, S., Madanat, H., Hawks, J., & Harris, A. (2005). The relationship between intuitive eating and health indicators among college women. *American Journal of Health Education*, 36, 331–336
11. Hooks, K. B., Konsman, J. P., & O'Malley, M. A. (2018). Microbiota-gut-brain research: a critical analysis. *Behav Brain Sci*, 1-40.

12. Juster, R. P., McEwen, B. S., & Lupien, S. J. (2010). Allostatic load biomarkers of chronic stress and impact on health and cognition. *Neurosci Biobehav Rev*, 35(1), 2-16.
13. Moloney, R., Desbonnet, L., Clarke, G., Dinan, T., & Cryan, J. (2014). The microbiome: stress, health and disease. *Mammalian Genome*, 25(1/2), 49-74.
14. Parker EC, e. (2017). *Probiotics and Disease: A Comprehensive Summary-Part 2, Commercially Produced Cultured and Fermented Foods Commonly Available in the United States.* - PubMed - NCBI . Ncbi.nlm.nih.gov.
15. Pasini, E., Corsetti, G., Assanelli, D., Testa, C., Romano, C., Dioguardi, F. S., & Aquilani, R. (2019). Effects of chronic exercise on gut microbiota and intestinal barrier in human with type 2 diabetes. *Minerva Med*, 110(1), 3-11.
16. Pizano, JM, e. (2017). Dolan KE, e. (2017). *Probiotics and Disease: A Comprehensive Summary-Part 7, Immune Disorders.* - PubMed - NCBI . Ncbi.nlm.nih.gov.
17. Porges, S. W. (1995). Cardiac vagal tone: a physiological index of stress. *Neurosci Biobehav Rev*, 19(2), 225-233.
18. Steenbergen, L., Sellaro, R., van Hemert, S., Bosch, J. A., & Colzato, L. S. (2015). A randomized con- trolled trial to test the effect of multispecies probiotics on cognitive reactivity to sad mood. *Brain Behav Immun*, 48, 258-264.
19. Tang, F., Reddy, B. L., & Saier, M. H., Jr. (2014). Psychobiotics and their involvement in mental health. *J Mol Microbiol Biotechnol*, 24(4), 211-214.
20. Wall, R., Marques, T. M., O'Sullivan, O., Ross, R. P., Shanahan, F., Quigley, E. M., . . . Stanton, C. (2012). Contrasting effects of *Bifidobacterium breve* NCIMB 702258 and *Bifidobacterium breve* DPC 6330 on the composition of murine brain fatty acids and gut microbiota. *Am J Clin Nutr*, 95(5), 1278-1287.

Professional Peer Review and Clinical Text Resources and Citations for Eating Disorders & Type 1 Diabetes: A Complicated Relationship:

- 1) There Is a Missing Ingredient in Diabetes Care Today, Aus Alzaid, MD, 2014
- 2) Social Learning Theory, Albert Bandura, 1977
- 3) Comorbid Diabetes and Eating Disorders in Adult Patients, Cynthia Gagnon, Annie Aime, Claude Belanger, Jessica Tuttmann Markowitz, 2012
- 4) The Diabetes Educator's Role in Managing Eating Disorders and Diabetes, Patti Urbanski, Ann E. Goebel-Fabbri, Maggie Powers, and Dawn Taylor, 2009

Statement of possible risk:

It is possible that participants, as a byproduct of attending this training, will have an opportunity to look at themselves and apply principles into their own lives, as well as those they treat. Therefore, there is always potential that participants could experience a mild

degree of emotional discomfort as they look in the emotional mirror in application of these principles in their own lives.