Nursing Science III Scholarly Reflective Journal

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Nursing Science III

Describe: Be specific in your description of the events that have stood out in your reflection. This provides the reader with the context and creates that empathy with being alongside of the author in experiencing your story. The details make a difference in not only the telling of the story but of the experience by the reader.

Examine: Here is where you make the connections with what you are reading and in nursing science, how this information would impact your current practice, or the connections that you are making in any of the other courses. This is where the right hemisphere of your brain makes the connections with the data points in the linear oriented left hemisphere. This is where you let your mind take the information on a journey of discovery. Take your thoughts out for a test drive and see where it leads you. There is no right nor wrong answers here, only connections. Image how Carper's Ways of Knowing (Carper, 1978) can provide a lens from which to view the experience. Each lens can provide a diverse viewpoint from which to view the phenomena. This is the area where you can examine and play with the "why" of what you do and how it can influence your practice (Sinek, 2009).

Articulate Learning: Here is where you expound on where your thoughts have taken you in your exploration of the experienced you have described, and imagine what this would look like if you implemented these ideas in your practice. These thoughtful ideas applied to informed moral practice is called nursing praxis (Watson, 2017).

Required Listening or Reading Texts: Perlmutter, D. (2015). **Brain Maker: The Power** of Gut Microbes to Heal and Protect Your Brain-for Life. Amazon or Audible. Total Length: 9 hrs 5 min.

Week 1 Reflections – Read/Listen: Introduction: Bug Alert

Writing Prompt: Reflect on the premise of this book. Think about how the information and approach to this content would apply to learning in general and nursing science in particular.

The book *Brain Maker* by Perlmutter (2015) seems intriguing to me. It is obvious that this book has a direct application to our lives as nurses, but I also feel like this is the beginning of a personal transformation for me. This book promises to restore health thru seemingly simple interventions with a primary focus on gut health, specifically creating a healthy microbiome. The microbiome is a new topic is new to me. Perlmutter (2015) describes the human microbiome as the complex internal and external ecology that occupies our body.

This week we started to discuss how our gut brain interacts with the rest of the body as a complex adaptive system. I now understand how the general unhealthy western diet of today leads to inflammation, which ultimately causes a progression of mental illness and other neurological conditions in our nation. I am excited to learn the book *Brain Maker* will discuss prevention of these illnesses rather than simply the treatment of symptoms. This is something I am passionate about as it applies to nursing. A major downfall of the US healthcare system is that we focus our resources in treating symptoms of illness opposed to primarily preventing illness.

As an RN I have been trained in modern western medicine, which today involves knowing medications, pathophysiology of disease process, as well as a vast amount of treatment interventions. Graduating with my BSN has made me realize nursing has evolved into so much more beyond this. Nurses of today need to be the voice of change. We need to utilize a holistic approach following the Caritas teachings of Jean Watson, and other nursing theorist, to change the landscape of nursing. These changes can move healthcare from an economical approach to an authentic caring model.

I envision healthcare in the US as being on the cusp of revitalization, utilizing an entirely different methodology to provide care. I am enthusiastic that following the recommendations of this book combined with the teachings learned in this class will present a happier, healthier me.

Week 2 Reflections – Read/Listen: Brain Maker: The Power of Gut Microbes to Heal and Protect Your Brain-for Life. Gut Check

Writing Prompt Reflection: Take the Gut Check and write about your results.

Your writing is strictly confidential for the faculty only. Does this survey offer any insight into current or past health issues? Please be descriptive with examples.

I tend to be a relatively healthy young-ish man. I do not have any chronic medical conditions, but I have suffered from occasional depression over the years. I attribute my health status to my knowledge of infection transmission, exercise and general awareness of what I put into my body. I have always been aware of how the choices I make impact my health.

The gut check is a series of questions designed to portray the status of your microbiome. I did have to answer "yes" to two of the twenty questions. Question 20 regarding suffering from depression as well as Question 10 regarding occasionally taking acid reflux medications.

Depression is something that I have battled intermittently over the years since I was a teenager. Acid reflux is more or less an issue due to the overeating of a spicy meal or overindulging in adult beverages which sometimes leads to the eating of a less than healthy latenight meal.

While I did say "yes" to one or two questions, the majority of my answers were "no". It appears that per this assessment tool my microbiome is relatively healthy, but there is always room for improvement. This information does provide some insight to the variance of health issues when I compare my older brother to myself. I was born vaginally and was breast feed, whereas my brother was born via cesarean section and was bottle feed. He required tubes for his ears and suffered many frequent ear infections, as well as other surgical interventions such as tonsillectomy. I luckily rarely ever had infections, did not require ear tubes, and still retain my tonsils.

Both of my daughters were breast feed and we born vaginally. My wife did not require antibiotics while pregnant, and overall, I feel we gave them a great chance at beginning life with a healthy microbiome. We tend to cook healthy and often at the house and rarely eat fast processed foods. We buy organic and try to model good eating habits with a sit-down dinner at the table free from electronics. I am becoming obsessed with this book and have started to read ahead. I am looking forward to the enlightenment that awaits.

Week 3 Reflections – Read/Listen: Brain Maker: The Power of Gut Microbes to Heal and Protect Your Brain-for Life. Part 1: Welcome Aboard

Writing prompt reflection: What is your current understanding of the role of your microbiome in regulating your overall health? Does this new information validate or

challenge your current understanding of the link between chronic conditions such as diabetes, autoimmune disorders, depression and neurological conditions and diet? Be descriptive in your examples.

Perlmutter (2015) claims your microbiome's DNA is more impactful than our own DNA when speaking about DNAs role in our health. This validates my current understanding of the partnership our microbiome plays in regulating overall health. The old saying "you are what you eat" holds true in understanding the link between diet and chronic conditions. Honestly, I had never heard of the human microbiome, and its effects on health before this class. The microbiome influences a multitude of aspects of our body from aiding in digestion and absorbing nutrients, to detoxifying our bodies, and preventing infections by influencing the immune system (Perlmutter, 2015).

If you examine the American diet and lifestyle you will quickly notice that we prefer instant gratification, and sedentary behaviors. The food most people eat is not prepared organically in a kitchen, but mass produced in a laboratory or warehouse. What is even more disappointing is that this is the food that most children are eating at school, and at home, simply because it is fast, easy, and the kids do not know any wiser.

This week's reflection recalls a common scenario experienced by many RNs. This scene depicts an ill patient lying in bed. Their family crowded around the bedside, most of whom are overweight, disheveled, and are one McDouble cheeseburger away from being hospitalized themselves. The family coming to visit is a welcomed site, what is not welcomed however is the greasy bag of fast food they brought with them. The smell of french fries permeates the hallway along with the stale cigarette smoke scent they brought as a bonus. So, what is a nurse supposed to do? Karate chop the bag out of the family members hand while delivering a steady stream of

microbiome gut health knowledge? While this is the image that plays out in many of our minds, the more appropriate solution is to take this opportunity for knowledge in a more tactful manner.

There seems to be an obvious correlation with the health trends of American children and what they eat. More and more children are being diagnosed with mental illness, obesity, and other chronic conditions at an alarming rate (Perlmutter, 2015). Is it that the medical community is over-diagnosing? Or, more likely what is happening is our health is taking a turn for the worse due to what we are feeding it. The body is a finely tuned machine if contemplated on a simplistic level. The fuel we feed the body determines the output. Feed it well, and the body will perform at ultimate capacity...feed it garbage and... well you get the metaphor.

Week 4 Reflections – Read/Listen: Brain Maker: The Power of Gut Microbes to Heal and Protect Your Brain-for Life. Chapter 2: Belly & Brain on Fire

Writing prompt: How does this new information on the science of inflammation validate or challenge your understanding of chronic conditions? What role does your microbiome play in mitigating the inflammatory processes? What role does leaky gut play in the inflammatory cascade? Please give examples.

My perspective on inflammation has changed due to learning more about the science of inflammation and its key role in chronic conditions. I thought I had a reasonable grasp on inflammations role within the body, but it turns out I only had an elementary understanding of its implications. Chronic inflammation is the source for many biocidic processes within the body. This new information validates as well as broadens my understanding of inflammations role regarding chronic conditions.

Perlmutter (2015) explains that your guts microbiome exerts a huge influence on several aspects of the body which contribute to chronic disease. The healthy human microbiome mitigates inflammation thru three main processes. The first is regulation of pro-inflammatory components such as cytokines, omega-6 fatty acids, lipopolysaccharides (LPS), c-reactive proteins (CRP), interleukin 6 (IL-6), and tumor necrosis factor-alpha (TNF-). The second way the microbiome reduces inflammation is by producing anti-inflammatory, and other protective components such as brain-derived neurotrophic factor (BDNF), vitamin B-12, gamma-aminobutyric acid (GABA), omega-3 fatty acids, and glutamate. Lastly the microbiome aids in prevention of leaky gut, a condition which increased permeability of the intestinal lining. This permeability allows absorption of proinflammatory proteins, chemicals, and other harmful agents such as viruses and "bad" bacteria into our bloodstream.

Leaky gut is a condition that is extensively debated, and some healthcare professionals do not recognize its existence. The condition is thought to be an increased permeability of the paracellular pathway between the epithelial cell lining of the gut. Perlmutter (2015) explains this lining is responsible for allowing the absorption of nutrients, and it also serves as a gatekeeper for prevention of pathogens, bacteria, and other toxic components penetrating into the bloodstream. Leaky gut is believed to be a precursor for some autoimmune diseases as well as some chronic conditions. Examples Perlmutter (2015) gives are rheumatoid arthritis, eczema, food allergies, crohn's disease, irritable bowel disease as well as many others.

Looking forward I will be considering how I can promote a healthy microbiome to prevent these disastrous effects on my own body. I am more aware of my sleep patterns, stress levels, and the food I am eating. This week's readings have been eye opening.

Week 5 Reflections – Listen/Read: Brain Maker: The Power of Gut Microbes to Heal and Protect Your Brain-for Life. Chapter 3: Is Your Belly Depressed?

Writing Prompt: What is your current understanding of the causes of depression and mood disorders? How does the concept of self-care fit with this new information regarding your microbiome? How might sleep patterns be determined by your microbiome? Be descriptive in your examples.

This week I wanted to write my thoughts before reading the chapter and compare it to my understanding after reading.

Before:

Currently, I feel like depression and other mood disorders are caused by an imbalance of neurochemicals in our brains which have been influenced by genetics, as well as life situations, and environment. We have learned that our socioeconomic class as well as many other factors can cause stress in our bodies. Stress leads to cytokine production yielding an inflammatory response which can cause negative effects on our emotions, sleep patterns, and mood.

After:

What goes on in our gut directly effects the brain. The guts microbes control the body's ability to absorb certain nutrients which are key to mental health as well as regulation of the inflammatory response. I'm reminded of the gut brain pathways we are learning about in class. The connection is very direct, the higher the inflammatory markers the higher the risk of mental illness. Obesity, consuming a diet high in pro-inflammatory sugars, and omega-6 fatty acids all contribute to an increase in inflammation. Perlmutter (2015) states there is a strong correlation between activation of the inflammatory response system and major depressive disorder. These

pro-inflammatory cytokines as well as increased LPS levels all contribute to the body's mental stability.

Linking this new knowledge with my knowledge of the leaky gut condition, I am starting to understand how the gut plays a large role in mental health. Perlmutter (2015) demonstrates that LPS antibodies are not only passing thru the gut, but also passing thru the once believed impenetrable blood brain barrier. Just as the LPS antibodies harm the gastrointestinal tract, they also are extremely damaging to our neuronal system within our brains.

I like the concept Perlmutter (2015) choose to use for his book; "change your gut, change your mood" (p.81). I need to find a way to boost my levels of BDNF and reduce my levels of cortisol. As someone how has struggled with anxiety as well as depression this seems to be a reasonable treatment plan that is non-pharmacological. Bifidobacterium infantis- the bacteria responsible for reducing cortisol levels in the body is found in many cultured probiotic yogurts. I have begun ingesting these daily by consuming a probiotic yogurt. I am also doing loads of research on brewing kombucha and its health benefits. As a homebrewer of beer, I have a lot of the equipment to set up a mini kombucha production program. The thought of reducing my anxiety, poor sleep, as well as depression without having to take medications is alluring.

My microbiome needs replenishing as I often do not feel rested when I wake. I attributed this to the stress of managing a busy adult life complete with being a father to two daughters one of which is a teenager, as well as going to school. Working as a registered nurse is also a very stressful career. I look forward to sharing my results with my patients that are in similar situations in the future as I will have firsthand experience with the implications of this reset. I am hoping with my new discovery of probiotic power I will be able to reset my microbiome and

achieve a reduction in stress, better sleep, as well as more resilience when it comes to mood stabilization.

Week 6 Reflections – Read: Brain Maker: The Power of Gut Microbes to Heal and Protect Your Brain-for Life. Chapter 4: Your Intestinal Flora & Obesity

Writing Prompt: What role does inflammation play in the development of obesity and diabetes? How can appetite be influenced by your microbiome and predispose a person toward obesity? Be descriptive in your examples.

This chapter illuminates the foundational problem with obesity in the United States. We have an imbalanced bacterial population within our microbiomes due to the food we consume, and the numerous other factors that inhibit growth of a flourishing microbiome. Perlmutter (2015) describes the two main groups of bacteria we have populated within our gut.

The first group is Firmicutes, this bacterial group is responsible for efficiently extracting calories from food. It does this so well that it often leads to weight gain. The second category, Bacteroidetes, specialize in plant matter catabolism, which the body can use for energy. Both bacteria are necessary to a healthy human metabolism, but what has been found is that the ratio of Firmicutes to Bacteriodetes (F/B) can be thought of as a determining factor for inflammation, obesity, diabetes, and numerous other disease processes. Obese patients tend to have a higher level of firmicutes in their gut which leads to higher extraction of calories. This high level of caloric extraction promotes weight gain.

So, where does inflammation play into obesity? Perlmutter (2015) explains that a diet high in fructose feeds pathogenic gut microbes tipping the scale in favor of the bad bacteria. Fructose is processed by the liver which negatively effects the production of leptin. Leptin is a

hormone that when released makes us feel full. If the feeling of being full is not transmitted to our brain, secondary to low levels of leptin, we have a higher chance of overeating.

Visceral fat stores inflammatory cytokines. This large amount of excess fat coupled with a western diet in someone with higher concentrations of Firmicutes bacteria in the gut leads to a cascade of constant inflammation. These high levels of Firmicutes bacteria have been shown to disrupt the genes that control our metabolism, and immune response (Perlmutter, 2015). This alteration in genetic expression continually triggers inflammation-producing reactions which lead to an onset of many disease processes.

One thing that I have consciously been aware of is my exercise amount, as well as fructose intake in my diet. Perlmutter (2015) claims exercise is beneficial in increases microbial diversity, and your microbiome has a large influence on your metabolism. When fructose is ingested it does not trigger the feeling of satiety, therefor you continue to eat, never feeling full. Perlmutter (2015) estimates 26% of American children are categorized as obese; I can't help but link this to a high dietary intake of simple high-fructose sugars and lack of exercise. The cycle is just as destructive for children as it is for adults. The constant elevation in blood sugar continues the cycle of insulin production, cellular resistance to insulin, fat deposits, and further increase of inflammation in the body.

It is easy to quiet a child down by giving them a piece of candy or another sweet treat. It takes more effort to be an informed adult and have the will power to explain to a child it's not ok to constantly have sugar, and deal with the tantrum that is surly to follow. This is applicable to not only our children, but also our patients at work. Many do not understand the concepts of how diabetes and insulin work. I recall a patient that was eating candies constantly. He claimed that it wasn't a big deal that his glucose levels were elevated, and I could just give him more insulin.

He wanted me to simply treat the numbers and spare him the formalities of diabetic education.

As his nurse, I had to make a choice, I could check his level with the glucometer and draw up the insulin, give it, and be in and out of the room in minutes, or I could take some time and provide the man with some much needed diabetic education. I choose the second option.

Week 7 Reflections-Read/Listen: Brain Maker: The Power of Gut Microbes to Heal and Protect Your Brain-for Life. Part 2: Punched in the Gut. Chapter 6

Writing prompt: What role does fructose and gluten play in the inflammatory cascade? What role does gliadin play in the formation of leaky gut? Be descriptive in your examples.

I never have paid much attention to gluten in my diet. I do not suffer from celiac disease, so I figured why limit that component of my diet. I enjoy an occasional cold beer, and whole wheat bread for sandwiches. Well, it's time to rethink my food choices. This chapter makes me feel like I have been sabotaging my health for years. Fructose, as well as gluten are large contributors to inflammation. Perlmutter (2015) calls gluten "the most inflammatory ingredient of the modern era" (p.149).

Fructose is easy fuel for bad bacteria in the gut, this causes rapid overpopulation, and an insult to the balance of the delicate microbiome. This alteration in population is the beginning source for inflammation. The next disruptive step involves gluten. Gluten can lead to poor absorption of nutrients as well as incomplete digestion which may manifest in the form of abdominal pain, cramping, constipation and other GI upset symptoms (Perlmutter, 2015). The body senses trouble and launches an immune response which increases inflammation. This attack on the intestinal lining contributes to a condition known as leaky gut. The damage to these

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epithelial cells creates openings between cells allowing pathogens, viruses, LPS and other biocidic components free access to the blood stream. Once in the blood stream these harmful agents trigger a systemic response further stoking the fire of inflammation. Perlmutter (2015) states this series of events leads to not only an attack on the gastrointestinal tract, but due to the immune system activation a systemic response is activated which also jeopardizing the blood brain barrier and nervous system.

Perlmutter (2015) explains that all humans are sensitive to gluten. Gliadin; one of the main groups of proteins found in gluten, increases everyone's gut permeability. The immune system recognizes this sensitivity and begins creating anti-gliadin antibodies which unfortunately damage our neuronal proteins leading to neurologic complications such as seizures, neuropathy and other neurobehavioral complications.

My sister in law suffers from frequent constipation despite numerous efforts to prevent it. I am going to suggest that she inform herself about a gluten free, reduced fructose diet and see if that begins to help her. I too am interested in reaping the positive benefits from making some dietary changes. Both of my grandmothers suffered from neurological illness. On my maternal side she suffered from dementia and Parkinson's disease. On my paternal side my grandmother was diagnosed with Parkinson's disease as well. I have always had a fear that other members of my family as well as myself would encounter this illness later in life. An ounce of prevention is better than a pound of cure as the saying goes.

Week 8 Reflections – Listen: Brain Maker: The Power of Gut Microbes to Heal and Protect Your Brain-for Life. Chapter 7: Bust a Gut

Writing Prompt: What common environmental elements can exacerbate the inflammatory process? What is antibiotic stewardship and what role do nurse's play in this critical issue? What role do antibiotics play in the food supply? What are some of the issues with genetically-modified foods? Be descriptive in your examples?

So far, Perlmutter (2015) has described the numerous connections between a damaged microbiome and its negative effects on the body. The focus of this chapter is to call to our attention the numerous environmental factors that have a destructive influence on our microbiome. Antibiotics, toxic chemicals, as well as genetically modified organisms in food all bombard our healthy microbiome. Perlmutter (2015) pronounces some specific chemicals suspected of interfering with our body's overall wellness. These chemicals are bisphenol-A (BPA), chlorine, and other pesticides found on our food. While we can attempt to limit our ingestion of these compounds there are some that are secondarily consumed via a process called bioaccumulation (p.172). This exposure is attributed to humans eating other foods that have been exposed to these toxins.

Antibiotics... a true scientific dichotomy. We need antibiotics to fight infections, but the overprescribing of these medications is leading the world into an era of resistant pathogens. Antibiotics can be dangerous to humans as well as to the animals we consume.

Antibiotics can change the diversity of our microbiome by eliminating many strains of beneficial bacteria leaving an imbalance allowing others to cultivate and take over. The United States ranks highest user of antibiotics in meat in the entire world (Perlmutter, 2015, p. 160).

While nurses may not have a large say in what ranchers give their cows, we most certainly have a say in advocating for our patients. Antibiotic stewardship is necessary to reduce the over prescribing of these classes of medications. There is a paradigm shift in prescribing

antibiotics in the hospital I work at. There is a specific physician order called "antibiotic stewardship protocol" in which multiple doctors and pharmacist consult to decide on if the antibiotic is effective for treatment of the condition as well as warranted.

GMO's, pesticides, chlorine in our water, over prescribing of antibiotics, it's a miracle we are still alive, let alone our microbiome. Looking forward I will be paying closer attention to the foods I purchase for my family. According to Perlmutter (2015) GMO's are found in 80% of processed foods. Knowing what I know now about how glyphosate (Round-up) residue is on some of the food we buy, I am considering other sources such as local organic farmers markets and specialty food stores that do not support the use of GMO's. I also can't help but think that this is causation for why Americans are so sick and overweight when compared to other countries that have banned the usage of GMO's. The only reason GMO's have not been banned in the U.S. is that mega corporations that benefit from the sales of these GMO foods have enough power to control or at least heavily influence the FDA. It's an absolute shame.

Week 9 Reflections – Brain Maker: The Power of Gut Microbes to Heal and Protect
Your Brain-for Life. Part 3: Brain Maker Rehab: Chapter 8: Feeding Your Microbiome

Writing prompt: What new information have you acquired about how the care and feeding of your microbiome? What three things might you change immediately and what might take some time to change and why? Be descriptive in your examples.

The knowledge I have gained from this book has given me the strength to make some serious changes for myself as well as for my family. I have made some stanch changes when it comes to caring for my microbiome, and I can honestly say that I am feeling much better. Some of these variations came easy whereas others are still a work in progress.

Probiotics, a word my family is likely sick of hearing about, has become a central focus in my vocabulary surrounding food and drink. My kombucha obsession has turned from occasionally buying it, to now making special trips to the store for a bottle of kombucha alone. I have also started brewing it with the help of my daughters. I also made a commitment to buy probiotic live-cultured yogurt, of which I consume daily as part of my microbiome rehab. Fermented pickles opposed to brined are another modification to our refrigerator's door of condiments.

I have become increasingly infatuated with reducing carbs and gluten. This reduction in gluten has encouraged much label reading and endless gazing into the vast unknown of the supermarket shelves. Beer intake has also been reduced substantially, although I did see that there are gluten free beer options now available. As a family we have always tried to eat healthy purchasing plenty of vegetables and fruits and staying away from processed foods. We tend to prepare most of our meals at home, buying organic options whenever possible. Reducing refined sugar has always been one of my wife's goal when it comes to making yummy desserts. She enjoys the challenge of substituting sugar for healthier more natural sweeteners in her baking.

When it is time to relax at the end of the evening surrounded by our friends and family my wife and I will open a bottle of wine toasting to our microbiological health. Coffee is another major necessity in our home. My wife and I are daily drinkers of this flavonoid packed, supporter of a healthy F/B ratio beverage.

These have been changes that have not required too much emotional investment whereas I need to speak to some of the challenges I have faced in caring for my microbiome. My wife is a huge believer and practitioner of intermittent fasting and the health benefits that accompany it. I on the other hand have struggled with this concept. With life being so packed with

appointments, practices, schoolwork, and a career I have not been able to routinely maintain a fast. I understand the benefits Perlmutter (2015) describes such as mitochondrial production, proliferation of brain cells, decrease in inflammation, but I feel like I work tirelessly and when I am hungry, I am going to eat. I can't take the feeling of intentional starving. I try to devour only healthy calories, but limiting when I can eat these calories is something I am simply not willing to do currently.

Week 10 Reflections – Read/Listen: Brain Maker: The Power of Gut Microbes to Heal and Protect Your Brain-for Life. Chapter 9: Go Pro

Writing Prompt: What supplements do you take currently? What might you add in the near future based upon this new information? What might be some challenges to adopting this new regimen? Be descriptive in your examples.

Pre and probiotics are becoming more than just a buzz word in mainstream healthcare. We hear about them all the time, what I didn't comprehend is the magnitude of the beneficial power that these little bugs have. Probiotics provide a multitude of benefits to our body and brain health. Perlmutter (2015) suggest four main benefits to beginning a probiotic regimen: fortifying the intestinal lining, reducing LPS, increasing BDNF, and sustaining overall balance in the microbiome to ward off any threats from bacterial colonies. In addition to pre and probiotics there are several other supplements that are touted as beneficial. Docosahexaenoic acid (DHA) and coconut oil are two that sparked my interest.

Perlmutter (2015) states that fifty percent of a neuron's membrane is composed of the omega-3 fatty acid DHA. I knew that this is a supplement sometimes prescribed to my patients with heart disease, but I didn't realize the health benefits it has on the neurological system.

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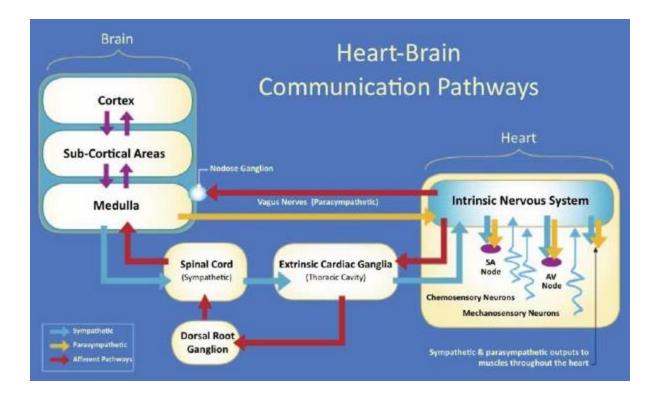
Coconut oil is claimed to reduce inflammation, prevent as well as treat neurodegenerative diseases. This information hits close to home due to having a cousin that suffers from multiple sclerosis (MS). I quickly took a picture of the information found in the *Brain Maker* book and sent it to her. I am always looking for non-traditional pharmacologic treatments for her. After sending her the snapshot I began reflecting on my own health and its implications for my own neurological system. These two supplements I am doing some research on and am considering adding it to my family's diets alongside the multivitamins that we all take.

Currently, the only supplements I am taking daily is a multivitamin, and ensuring I consume enough protein for my dietary needs. Since beginning this class and following the readings in this book I have begun brewing kombucha for my family. We also bought a new Vitamix blender so we can make healthy smoothies and juices as meal supplements for ourselves and the kids. This purchase has allowed my wife and I to get more vegetables and fruits into the kids diets as well as our own.

Thinking about future health goals and challenges prompted me to create more time dedicated to exercise. I have two dogs that would love to take evening walks, a road bicycle that sadly has collected some dust, and a swimming pool which I can easily swim laps in. I also recently received a new smart watch that helps track my fitness levels as well as sleep. The challenge I have faced is amidst life's hectic schedule making time to do these activities. I am aware of the possibilities of a healthier lifestyle and am looking forward to rising above these challenges and implementing these changes into my daily routine.

Week 11 No reflection

Week 12 No reflection



Week 13 Reflective Analysis –

The final weekly entry is all about the analysis of the entries within the semester.

Articulating the learning for these entries provides the space to weave the threads together into a tapestry of your nursing praxis (Watson, 2017). What tapestry will the weaver show the world? Each will be different based upon their experiences, interpretations, understandings and dispositions. Full articulation of this work establishes the boundaries of identity that the scholar creates. These boundaries help inform and guide the information and energy flow (Siegel, 2017) that comprises who you are and how you interact with the world and what grounds your nursing praxis (Lee, Palmerii, & Watson, 2017; Watson, 2002, 2005a).

Writing prompt: Reflect on the information presented in this journal's readings. How might you utilize this information in the near future for yourself, family, and your nursing praxis? How has this new information validated or challenged your current

understanding of chronic conditions and what it means to be healthy. This section is 250-500 words in length. This section should be a distillation of all the entries in this journal.

If I had to describe what this book has provided for me in one word it would be *inspirational*. As a RN it takes a lot for me to feel an emotion that I haven't already felt at some point in the last decade being a nurse. This book has truly catapulted my health in a direction I never could have predicted. I have a strong foundation of what total health means now, and that can only be attributed to this BSN program. In the past semesters I gained knowledge on understanding my purpose in life, understanding what it means to be a compassionate provider, and now finally understanding what it means to take care of myself. I never could have expected how this book has played a pivotal role in my life. I have been inspired to make some drastic changes in my life as well as be a positive influence for many others.

As I read this book, I pondered why was this information never taught to me before? I'm not even talking about just in nursing school, I feel like everyone should be taught about this in classes such as high school biology. In attempts to not be over dramatic, I can honestly say that this class has unlocked a whole new perspective on not only life, food, spirituality, and wellness, but also comprehending the importance of the connections between it all. I never could have imagined the magnitude of influence that our bacteria in our gut plays on our health.

Inflammation is seemingly everywhere, and in everything we do, awareness recently gained has given me the tools to fight this horrific beast of a bodily function.

The teachings in this semester coupled with the information gleaned from the book *Brain Maker* has changed my perspective on my comprehension of chronic conditions and total wellness. Neurological conditions such as Alzheimer's, depression, anxiety, dementia, Parkinson's, and MS, hit close to my heart as many in my family including myself suffer from

some of these conditions. Before, I was looking for a cure to treat these diseases, now my focus is much more upstream in thinking how we can prevent these illnesses, or at least minimize the damaging effects on our neurological system.

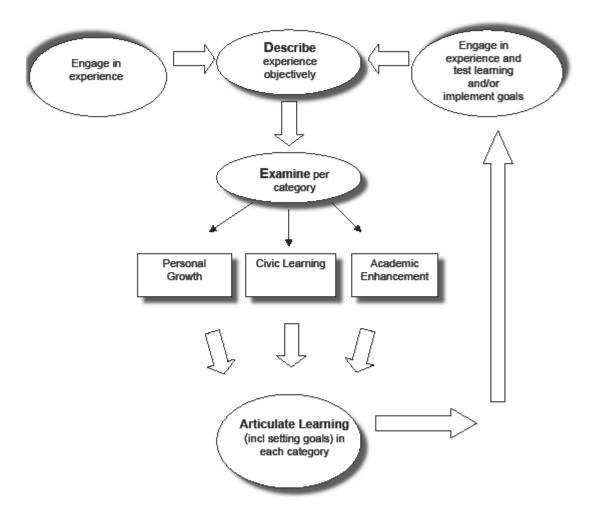
I never could have imagined such a personal transformation; I am so proud of myself and my fellow classmates for completing this program. Obtaining my BSN will not change my pay, nor give me a promotion at work, but the feeling of accomplishment, and the leadership skills I have gained make it worthwhile. Just as I have completed the last chapter of this book, this chapter of my life draws to an end, I wonder what the next page in my book of life will say.

References

Perlmutter, D., & Loberg, K. (2015). *Brain maker: The power of gut microbes to heal and protect your brain--for life*. New York: Little, Brown and Company.

DEAL Model for Critical Reflection

[Ash & Clayton, 2009; various]



PHC Ventures, 2013

www.curricularengagement.com