

**We are what we eat: Gauging the effects of nutritional choices on the cognitive  
performance of an educational interpreter**

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Action Research Project Title:

We are what we eat: Gauging the effects of nutritional choices on the cognitive performance  
of an educational interpreter

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Candidate for the degree of : Master of Arts in Interpreting Studies

*and hereby certify that in our opinion it is worthy of acceptance as partial fulfillment  
of the requirements of this master's degree.*

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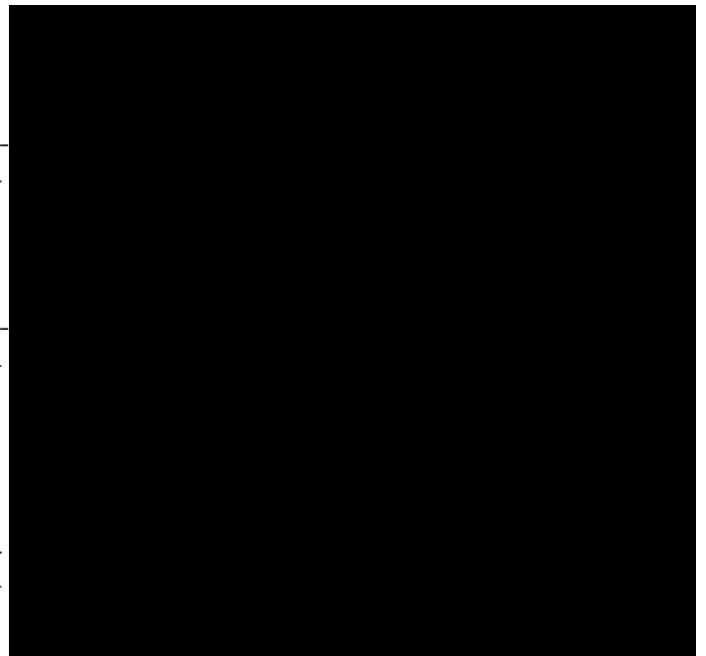
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Abstract

**We are what we eat: Gauging the effects of nutritional choices on the cognitive  
performance of an educational interpreter**

by

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The purpose of this action research specifically relates to new educational interpreters working with Deaf or hard of hearing (DHH) students. This study provides information about American Sign Language (ASL)/English Educational Interpreting professionals' practice in self-care to reduce role strain, increase alertness, emotional wellbeing, and cognitive performance. Nutritional intake of my own was documented, analyzed and used to describe how that has had a perceived impact on my work in interpreting. The results of this data provide comparisons between recommended amounts of specific nutrients (e.g., calories and carbs), actual consumption, alertness, and identified emotions from an educational interpreter. The analyzed data includes a phone app called MyFitnessPal that had been used to document a nutritional intake log of an educational interpreter, documented perceived alertness during the interpretation

by use of a Likert Scale as well as the Junto Institution's Emotion Wheel (Chadha, 2020) to track perceived effectiveness, satisfaction, and overall feeling during the end of each work day.

Further studies would benefit future and current interpreters as this research indicates a need to experiment with an adequate use of self-care by healthier intake of nutrition in our bodies, and note what kind of impact specific nutritional intake has on our ability to focus and interpreter's note whether they interpret with a higher perceived efficacy rate compared to inadequate self-care and poor nutrition.

*Keywords:* interpreting, nutrition, intake, alertness, emotion, self-care

## **Chapter 1: Introduction**

The interpreting profession is both a physically and mentally demanding job, as stated by Dean and Pollard (2001). More specifically, educational interpreters working in K-12 settings experience greater health risks as compared to some other settings in which interpreters are known to work (Humphrey, 2015). Researchers have identified those risks as physical stressors and psychological distress, which can take a toll on the interpreter's linguistic capacity, reduce physical stamina and emotional stability (Schwenke, 2012). In order to maintain balance in one's personal and professional life, avoid burnout, and avoid those mental and physical exhaustions (McDowell et al., 2011), one must engage in some form of self-care (Zenizo, 2013). Self-care is defined as, "any mental, emotional, or physical practice that is self-initiated and whose purpose is to increase or maintain a healthy lifestyle or mental/emotional state" (Humphrey, 2015, p. 9). It is known that interpreters prevent burnout from role strain, mental multitasking, and physical exhaustion from the job (Zenizo, 2013) by engaging in various physical, mental and emotional self-care practices. A well-balanced diet (e.g., plenty of fruits and vegetables) is considered a form of self-care as it offers mental health benefits and feelings of wellbeing (Stranges et al., 2014), as well as contributes toward maintaining a healthy lifestyle.

### **Background**

As I went through my first Interpreter Education Program (IEP), I became curious about my own personal and professional self-care journey. Humphrey (2015) lists subcategories of physical, mental, and emotional self-care that all included food (eating healthy, diet, and moderation). Self-care in the form of nutritional intake has been a practice of mine since I started that program in 2017. It has been mentioned that busy people often neglect a healthy diet, and, "cutting back on meals and sleep has long-term negative effects on physical and mental health"

(Crezee et al., 2015, p. ??). I noticed this habit forming in myself when I would neglect to eat in the morning and survive on caffeine until the afternoon, and I became aware of this difference in feeling exhausted more frequently when I began my interpreting career. This is why much of my research focused on the nutritional aspect and how I perceive its effects on my alertness and impacted emotional wellbeing.

### **Statement of the Problem**

From interaction, linguistic, to restrictive decision-making abilities, the interpreting profession is a multifaceted job and requires a reduction on stress and burnout (Dean & Pollard, 2001). I wanted to know how to reduce stress, feel more alert, and see how nutrition impacts my work. As far as I have seen, there is only a reference to the importance of diet and healthy nutrition, but I have found no specific studies that have been made relating to the interpreting profession at this time. I had researched other projects and nowhere did it mention anything more than general advocating for proper diet, exercise, and balance to decrease stress and improve one's ability to interpret more effectively. In some of my colleagues' work, they studied the effects of self-care via exercise or exploration of "green space" (see Caccavo, 2020; Masterson, 2019), and I realized there is not enough research on the impacts of nutrition on the ASL/English Interpreter.

### **Purpose of the Study**

The goal of this study is to assess whether or not certain nutritional intake has an impact on interpreters to produce more effective interpretations while working assignments that are back-to-back and keep up the cognitive ability and energy that is required to be able to interpret at an effective level. Linking nutritional intake with increased alertness and emotional well-being for comparison is the focus of this research. As research is lacking on how nutritional intake

impacts emotional wellbeing as well as alert levels within the interpreting profession, the qualitative data here will provide some evidence toward the question of what kind of impact nutrition has on an interpreter in an educational setting.

### **Theoretical Framework**

Fundamentals of both the Social-Ecological Model and the Health Belief Model are used within this research, which have been adapted and applied based on the relationship between an individual with nutritional intake, and how many factors influence and contribute to the perceived impact on the interpreter's emotional well-being and alert levels. Specifically, the purpose for these proposed frameworks is to acknowledge and be aware of the risks of interpreting and, in order to decrease the likelihood of being impacted, one will engage in healthier actions based on the perception susceptibility, severity, benefits, and barriers. This model defines susceptibility as it pertains to concerns of diseases or specific conditions; severity of the disease or condition; benefits of behavior changes and if they reduce the risk; and barriers or resistance toward changing behavior based on perception (Simpson, 2015). Keeping the concept of how my perceptions have an influence on what I view as benefits or barriers to my efficacy as an interpreter and how certain nutrients influence my actions, emotions, and alertness. I have adapted both models by applying these views with a focus on self-care, alert levels, emotion levels, as well as promoting nutritional intake.

The Social-Ecological Model views factors such as social and cultural norms and values, sectors, settings, and individual factors having an influence on our nutrition intake. The Office of Disease Prevention and Health Promotion (2020) states social and cultural norms and values include traditions, religion, and belief system. They also define sectors as a variety of systems, organizations, businesses, and industries (e.g., government, public health, planning and

development). Settings such as schools, worksites, and other community settings have been included in the Social-Ecological Model. Finally, individual factors include categories such as demographics (e.g., age, race/ethnicity, and disability) and personal factors (e.g., psychosocial, knowledge and skills, and food preferences) (Office of Disease Prevention and Health Promotion, 2020). The Social-Ecological Model uses the perception of a variety of the factors listed above (e.g., demographics, systems, organizations, business, and values of a society) to acknowledge society's influences that intersect with an individual's tendency toward nutrition intake and physical exercise (Office of Disease Prevention and Health Promotion, 2020). While acknowledging these factors exist in the world and in my own personal and professional life, I did not go into detail to describe these factors. The Social-Ecological Model for food and physical activity decisions is applied toward decisions individuals make when it comes to consumption and engaging in physical exercise. The Social-Ecological Model uses the perspective of those factors being changed and incorporated in individual's access to healthy nutrition choices with the goal of improving the overall health of an individual (Office of Disease Prevention and Health Promotion, 2020). I continued the theme of improving overall health in my research study. The Social-Ecological Model has been used on studies like nutrition education (see Gregson et al., 2001). Other studies that have adapted the Social-Ecological Model include interpersonal-related factors, health, and behavior. The way that I have adapted this model is to continue viewing related topics, such as nutrition, and combine elements like emotional well-being and alert levels for overall health promotion.

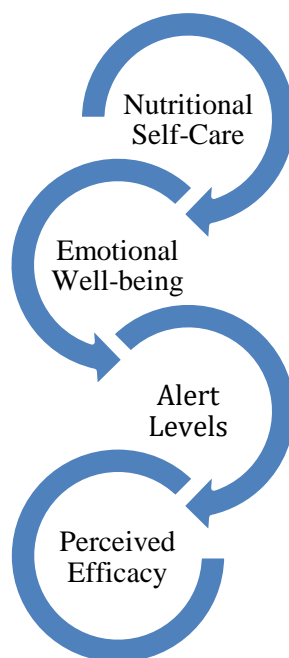
Having said that, the Health Belief Model entails promoting healthy actions as to avoid negative health consequences. The Health Belief Model focuses on how an individual's perceptions influence their eating habits and motivate them towards specific actions to improve

their health and intake (Simpson, 2015). The Health Belief Model approach has been applied to obesity, diabetes, and behaviors/interventions toward nutritional intake. Similarly, the health belief model includes studies like health promotion, behavior, and self-efficacy. More specifically, studies that review the Health Belief Model have stated strong influencers toward behavior-related changes depend on the individual's attitude and belief of their level of self-efficacy, perceived barriers and benefits, as well as other influences toward promoting health actions (Janz & Becker, 2016). In this study, the emphasis on perceivable influences of the individual's alertness and emotional well-being will be adapted from the Health Belief Model. Acknowledgement of the perceptions that influence the interpreter's intake and other factors will be addressed and analyzed to identify other possible interventions that promote nutritional self-care to improve the quality of emotional well-being and increase alert levels.

#### Conceptual Framework

##### **Figure 1**

##### *Conceptual Framework*



This conceptual framework is used to describe my perception of how nutritional intake has impacted my emotional well-being and alert levels during my work as an educational K-12 interpreter. The figure above does not represent a sequential order of perceived impacts, rather a constant flow of how each affect the other continuously. Both the Social-Ecological Model and the Health Belief Model were adapted by acknowledging the many external factors individuals are impacted by when it comes to nutritional intake and the actions we take based on our own perceptions. While acknowledging these factors do play a role in our actions and perceptions, I created this concept of how my nutritional intake had a perceived impact on both emotional well-being and alert levels throughout the workday.

The conceptual framework above represents the process in which I viewed my research, noting whether my actions based on consumption showed any patterns or perceived effects on the outcome of how I was feeling that day and if it were positive or negative. That, partnered with how I was perceiving my alert level throughout the day, had made me realize the influence nutritional intake has on my overall well-being and perceived efficacy when interpreting.

## **Chapter 2: Literature Review**

### **Demands of Interpreters**

Like other professions, the American Sign Language (ASL) interpreting field consists of job demands that can cause pressure and mental strain on the individual, which leads to possible depression or exhaustion (Karasek, 1979; McDowell et al., 2011). The interpreting profession requires high intellectual demand because interpreters are mediating between different languages and cultures, and must do so in a timely manner in order to keep the interaction accessible and on track with every participant involved (Pöchhacker, 2004; Napier, 2009; Humphrey, 2015). Interpreting is considered an active profession, specifically relating to high decision-making ability in linguistic, environmental, interpersonal, and intrapersonal demands (Dean & Pollard, 2001). These demands, also known as role strain, include “conflicting responsibilities, unexpected situational requirements, and/or ethical dilemmas—[all of which are] known as demands—as well as the resources, or controls, to manage those demands” (Humphrey, 2015, p. 62) which can sometimes feel restricting. Dean and Pollard (2001) assert that the reason “role strain” is experienced by interpreters is because there are many factors that need to be considered while actively working in this occupation.

### **Understanding Controls**

Dean and Pollard define the word “control” as the individual’s reaction to the presented demands; examples include “...making decisions, bringing skills or resources... or altering the environment or other aspects of the task demand” (Dean & Pollard, 2001, p. 2). The vocation of interpreting is often labeled demanding, which can be hard to understand. While there are many examples of demands and high expectations, one example of a common control practiced most often in ASL and English interpreting is a method known as simultaneous interpreting (SI).

According to Moser-Mercer (2010), during SI, the interpreter is managing “both language comprehension and production, while continuously monitoring output in order to verify its syntactic, semantic, and stylistic faithfulness to previous input” (p. 263). In other words, the interpreter must balance multiple requirements at once in order to accurately produce the interpretation. This and other factors, such as memory, are important pieces in the interpreting puzzle requiring deliberate practice on many learned skills, attention, and cognitive control (Moser-Mercer, 2010).

### **Impacts of Interpreting**

There are many demands that are included in Dean and Pollard’s (2001) application of the demand-control theory, ranging from personal and sensitive information, to situations that later take a toll on the interpreter’s mental health with no outlet to resolve the issue. When other factors like job changes occur, which they do as an itinerant interpreter with a changing work schedule and location, there is increased potential for additional strain and health risks (Karasek, 1990). It is yet to be determined whether gender is also a factor. Further research needs to be conducted on gender because the majority of interpreters in this profession happen to identify as female (Registry of Interpreters for the Deaf, 2017). As stated by Karasek and Theorell (1996), there is an increased risk of cardiovascular disease within professions with high psychological demands when combined with low decision latitude, and the interpreting profession perfectly fits into that category, putting interpreters at risk. Additionally, there is an increased risk of cardiovascular disease among those who work long hours, have unhealthy dietary habits, or are involved in additional studies like going to college (Theorell & Karasek, 1996). Some other examples of physical risks and impacts of interpreters include hand or wrist problems, repetitive stress injuries, and carpal tunnel (Zenizo, 2013; Gordon, 2017). Additionally, some examples of

mental impact on interpreters include compassion and empathy fatigue, vicarious trauma, as well as symptoms of sadness, anxiety, and stress (Zenizo, 2013; Gordon, 2017; Chin, 2019).

### **Emotional Impact**

Most of these physical and mental demands appear to contribute to some form of exhaustion, depression, burnout, or cardiovascular disease (Karasek, 1979; Theorell & Karasek, 1996; McDowell et al., 2011; Humphrey, 2015). Additionally, Zenizo's (2013) findings show that workload, lack of physical self-care, and other factors lead to increased internal stress and burnout. Burnout is a syndrome defined by emotional exhaustion, which develops in response to the ongoing pressure of managing complex people-related interactions (Maslach, 1982; Schwenke, 2012; Humphrey, 2015). As emotional exhaustion is considered to be the reason behind burnout (Darroch & Dempsey, 2016), this means that interpreters experience a rift in their emotional well-being, which leads to other potential problems, such as emotional distress.

Darroch and Dempsey (2016) provide a list between the years 1999 to 2013 of interpreters experiencing emotional distress from different aspects in their work, which "can lead to interpreters experiencing negative emotions and distress, and symptoms of vicarious trauma" (p. 174). The American Counseling Association defines vicarious trauma as, "...the emotional residue of exposure that counselors have from working with people as they are hearing their trauma stories and become witnesses to the pain, fear, and terror that trauma survivors have endured" (American Counseling Association, 2011, p. 1). Due to the dynamics of how intimately interpreters and consumers utilizing ASL interpreting services work with each other, it is possible to experience this kind of trauma in a variety of settings, including educational settings. Interpreters who report negative feelings and emotional distress also mention the toll taken on both their personal and professional lives (Darroch & Dempsey, 2016). Additionally, they report

battling stress and feelings of exhaustion (Theorell and Karasek, 1996; Dean & Pollard, 2001).

Overall, these physical, mental, and emotional factors may lead to interpreters avoiding high risk situations or withdrawing from the profession altogether.

### **Nutritional Interventions**

Interpreting requires a tremendous amount of energy and the energy we burn is consumed from what we eat, drink, and how we treat our bodies (Nacamulli, 2016). If we have a healthier mindset going into the job, then the demands and controls seem more manageable. On the contrary, a lack of proper care can make the demands and controls less bearable. The high psychological demands of the profession and the effects they have on the interpreter's physical, mental, and emotional well-being indicate a significant reason to practice healthy habits such as physical, mental, and emotional self-care. Nutrition has an impact on emotional wellbeing and brain health, and although the nature of the relationship is still to be determined (Morera et al., 2019), research still indicates a need to be included in self-care practices.

We absorb the nutrients from what we eat and drink, which provide energy and have an effect on our mental and physical performance. In a study conducted by Gibson and Green (2002), the authors focused on the benefits of breakfast and how memory, specifically spatial memory and recall tasks, increased an hour or two after eating breakfast. By increasing the intake of antioxidant nutrients (e.g., curcumin, green tea, vitamins C, E, and A), interpreters can optimize their mood, cognition and mental health by improving levels of serotonin, dopamine, and glutathione (Parletta et al., 2013). Parletta et al. (2013) list these benefits and relate more of their work to Mediterranean-style diets to improve cardiovascular health and other variants. These nutrients cause an improvement in dietary patterns that relate to better mental and physical health (Parletta et al., 2013). "Some correlational and longitudinal population studies have

suggested that healthy dietary patterns are associated with better mental health [16, 22-27] and reduced risk of cognitive impairment [4, 28-31]” (Parletta et al., 2013, p. 3). These studies depict patterns showing improved mental, physical, and emotional well-being tied to eating habits, which can be utilized as a possible solution to decrease risks associated with interpreters’ experiences of strict job demands and effects in their field.

While there is research on interventions relating to physical and mental health-related self-care practices, there are a limited number of studies on nutritional intake in the interpreting field. We know there are many studies that focus on physical and mental self-care practices, as well as general knowledge about nutrition and the impacts nutrition has on an individual. What has yet to be studied is how nutritional intake directly impacts the interpreter’s emotional well-being and alertness in their work.

### **Chapter 3: Methodology**

In this chapter, I will discuss the design of my study, the participant, the data collection, how I analyzed my data, and the types of comparisons made.

#### **Design**

The goal of this study was to start identifying if there were common themes or patterns in the types of foods I eat that may or may not have had an impact on how I perceive my alertness in interpreting assignments throughout any given day. In order to achieve this goal, I used written reflections to identify emotions, a nutrition intake log of what I consumed, and a rating based on my alert levels throughout the day as I interpret in an educational setting.

#### **Participant**

The only participant involved in this research, myself, is a recent graduate from Western Oregon University's (WOU) ASL/English Interpreting program. Graduating in June 2019, I received a Bachelor of Arts in American Sign Language/English interpreting, then shortly after continued my professional development by starting a Master of Arts degree in Interpreting Studies (MAIS). I am a K-12 educational interpreter in a full-time staff position, rarely with team interpreters. All of the collected data was from that setting with myself as the focus of this research project.

#### **Data Collection**

Excluding previous data collection attempts from October 2019 to January 2020 that were not used, the data that was collected and will be discussed was from February 2020 through April 2020. During workdays, I collected my data through logging my nutritional intake and, later, applied other interventions like a Likert Scale rating on my alert levels or identifying an emotion I was feeling at the end of a workday (see Appendix A). When I downloaded the

smartphone application called MyFitnessPal, I input my stature, and later input what I consumed into breakfast, lunch, and dinner categories. My data also showed days where I neglected to log or consume specific meals of the day (breakfast, lunch, or dinner). My workdays were Monday-Friday, and while I consistently logged my consumption, I inconsistently collected data on my perceived emotions and alertness through the Junto Institution's Emotion Wheel and Likert Scale ratings. I was able to consistently log my nutrition intake from February 11, 2020 to April 20, 2020, and input that data into an Excel sheet. That log contains categories like calories, carbs, fat, protein, cholesterol, sodium, and sugars, along with recommended amounts for each from the MyFitnessPal app. From February 25th to March 5th, both emotions and alert levels were identified and recorded into that same Excel sheet for comparison and analysis.

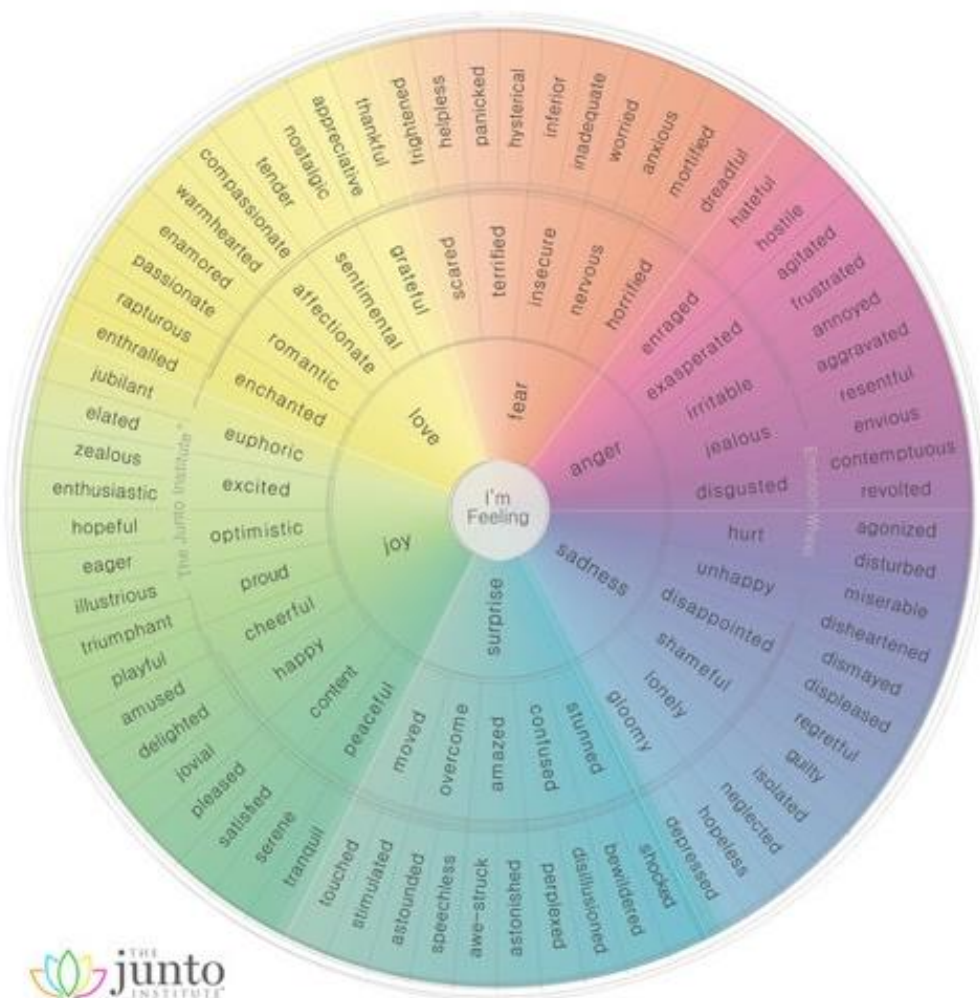
### **Data Analysis Procedures**

In order to figure out my perceived alertness while interpreting and if it was supported by my nutritional intake, I needed to analyze my daily log of what I have consumed for comparison. I had about eight data points indicating my alert levels through a Likert Scale rating as well as an emotion identified on the Junto Institution's Emotion Wheel (see Figure 2) through written reflections. To analyze the data I entered into Excel, I first had to input the nutritional intake from the app on my phone, which included recommendations for what amounts I should be consuming. From there, I created a 20% margin of error for the recommended amounts. Then, I input alert levels and emotions identified and documented from reflections, but using the Junto Institution's Emotion Wheel, I labeled separate categories as follows: 1 - Joy; 2 - Love; 3 - Fear; 4 - Anger; 5 - Sadness; 6 - Surprise. When rating myself on the Likert Scale, it was a 1-5 rating as follows: 1 - tired; 2 - moderately tired; 3 - moderately alert; 4 - alert; 5 - focused (see Appendix A). Then, I created charts to compare the app's recommendations to my actual

consumption, my consumptions compared with my perceived alert levels, as well as a comparison between my perceived alert levels and emotion levels on what I perceived as positive and negative emotions. I further color-coded my actual consumption to the recommended amounts, including that 20% margin of error to indicate whether my consumption was above, below, or in the range of recommended amounts.

**Figure 2**

*Junto Institute Emotion and Feeling Wheel* <https://www.thejuntoinstitute.com/blog/the-junto-emotion-wheel-why-and-how-we-use-it>



## Chapter 4: Results and Discussion

What I found in my analysis of the data I had gathered, broken down into nutrition log categories with consumption and recommended amounts, were a variety of consumption above, below, and meeting in the range of the recommended amounts. The total number of days I had logged information about my consumption were 70 days. Listed below is a table of the nutrition categories and percentages of my consumption in reference to the recommended amounts (see Table 1). Fiber and protein were the lowest percentage intakes below the recommended amount out of my total consumption. The highest percentage of consumption that exceeded the recommended amounts were in the fat and sugar categories.

**Table 1**

*Percentages of Consumption in Reference to Recommended Amounts*

	%	Recommended Target Range	Below	Above
Protein		97.1%	0.0%	2.9%
Fiber		88.6%	11.4%	0.0%
Cholesterol		68.6%	8.6%	22.9%
Calories		44.3%	45.7%	8.6%
Sodium		44.3%	35.7%	20.0%
Carbs		40.0%	38.6%	21.4%
Fat		38.6%	28.6%	32.9%
Sugar		34.3%	31.4%	34.3%

As seen in Table 2, during the eight days where alert levels or emotions were documented, once again, fat and sugar levels were the highest percentage of intake above the recommended range. All eight days met the recommended target range for caloric intake, while carbohydrates were the next highest category consumed. The lowest percentage of recommended nutrition consumed were both protein and fiber, which ranged below recommended levels all eight days. Out of those eight days, I had indicated whether I was moderately tired 37.5% of the

time; feeling moderately alert 50% of the time; and feeling alert only 12.5% of the time. Between those alert levels and documenting emotional wellbeing and if it was a positive or negative emotion, I had found that negative emotions were documented 62.5% out of the eight days.

**Table 2**

*Percentages of Consumption For 8 Days*

	%	Recommended Target Range	Below	Above
Calories		100.0%	0.0%	0.0%
Carbs		75.0%	12.5%	12.5%
Sugar		50.0%	0.0%	50.0%
Sodium		50.0%	50.0%	0.0%
Fat		37.5%	12.5%	50.0%
Fiber		0.0%	100.0%	0.0%
Protein		0.0%	100.0%	0.0%
Cholesterol		0.0%	62.5%	37.5%

Further analysis on the eight days have been included below (see Table 3). The perceived alert levels were documented as follows: 1 – Tired; 2 – Moderately tired; 3 – Moderately alert; 4 – Alert; and 5 – Focused. The Junto Institute’s Emotion and Feeling Wheel were labeled as follows: 1 – Joy; 2 – Love; 3 – Fear; 4 – Anger; 5 – Sadness; and 6 – Surprise. Furthermore, I categorized Joy, Love, and Surprise as positive (+) emotions; Fear, Anger, and Sadness were negative (-) emotions.

**Table 3***Comparison Between Nutritional Intake, Alertness, and Emotion*

Dates	Calories	Carbs (g)	Fiber (g)	Fat (g)	Protein (g)	Sugars (g)	Cholesterol (mg)	Sodium (mg)	Alert Levels	Emotion
2/25/20	1,410	153	15	52	40	86	210	1,334	3	-
2/26/20	1,209	86	10	59	82	63	369	2,173	3	-
2/27/20	1,414	143	10	67	37	50	583	2,235	2	-
2/28/20	1,118	149	19	36	70	63	10	1,036	3	+
3/2/20	1,355	159	18	67	45	80	81	2,114	4	+
3/3/20	1,306	137	11	55	69	51	126	1,297	3	-
3/4/20	1,453	187	19	64	38	111	389	2,190	2	-
3/5/20	1,363	135	10	68	55	70	136	1,380	2	+

Table 3 indicates actual consumption between the eight days where alert levels and positive (+) or negative (-) emotions were documented. Table 4, listed below, includes a 20% margin in the recommended range of nutritional intake to indicate whether Table 3 shows consumption that is below, on target, or above the recommended range.

**Table 4***Recommended Range of Nutritional Intake*

	Calories	Carbs (g)	Fiber (g)	Fat (g)	Protein (g)	Sugars (g)	Cholesterol (mg)	Sodium (mg)
<	1,644	181.2	61.2	136.8	360	2,760	66	30
>	1,096	120.8	40.8	91.2	240	1,840	44	20

Based on these eight days and data point entries, I have seen no clear correlations or patterns based on the food intake, emotional wellbeing or alert levels. This was the same when comparing Table 1 and 2 consumption percentages; no patterns or correlations found or identified.

## Discussion

The connections I was hoping to find in this research were a correlation between meeting the recommended amounts of nutritional intake with increased alert levels and positive impact in my emotional wellbeing. Due to the Coronavirus (Covid-19) pandemic, data collection had been cut short. Because I was not able to collect as much data as I would have liked, I found many inconsistencies as well as a lack of evidence that prevented me from identifying any recognizable patterns or themes from comparing my consumption levels to the alertness or emotions I had felt. Throughout this process, there were inconsistencies throughout my nutrition logs, inputting information from my perceived efficacy or alert levels, as well as identifying an emotion. Those were limiting to my research as I did not have enough data collected to confidently correlate nutritional intake to the other two dependent variables. Future studies should include a larger collection of data points between perceived alertness and emotions to analyze if there is a pattern or any correlations.

As I look back on my research and conclude how it has impacted how I practice self-care with nutrition, I noticed some significant changes within myself as I monitored and documented my intake. I became more cognizant as to what I ate (or did not eat) because I knew I was going to present this information, so it made my nutritional choices a bit more intentional. The act of recording and reporting on my nutritional choices caused me to incorporate a more balanced diet that included a variety of nutrients more frequently throughout the day instead of borderline fasting until lunch. I also noticed many negative emotions that had popped up in a short amount of time, and whether it was related to my nutritional choices or other factors, there were still many times I documented negativity. Overall, this recognition of negative emotions and lower alert levels have made me think about whether it was related to nutritional intake or not. Future

studies may need to consider incorporating various self-care practices in addition to proper nutrition. Studies on the mental aspects of interpreting and importance of incorporating self-care practices have been continuously mentioned (Schroenberg, 1999; Harvey, 2003; Stebnicki, 2008; Woodcock et al., 2008; Zenizo, 2013; Gordon, 2017), and can be “...something as easy as eating healthy food, getting enough sleep... or any other everyday activity that may help...” (Gordon, 2017, p. 10), but it is a practice that should be continuous and incorporated into one’s life, no matter the profession.

## **Chapter 5: Conclusion**

Current results discussed in this paper indicate a need for more information, analysis, and additional procedures to experiment with nutritional intake. Because this research on myself showed inconclusive results, I recommend further studies in comparisons and analysis of consistent use of nutritional interventions. This will provide more consistent information that could later be coded and discussed in future studies. More data, like biometric screenings and continuous documentation included in future research will help prepare current or future interpreters to best support themselves through mental, emotional, and physical self-care practices like nutritional intake to optimize their cognitive abilities throughout the day and be their healthiest.

Recommendations for further studies and research on this topic should include documentation of the interpreter's intentional self-care practices, their alert levels, as well as emotional wellbeing. This should be incorporated with nutritional intake logs, and experimentation on different diets and nutrients on a monthly trial basis. Including documentation from a variety of interpreters and settings could also help fill in the gaps to potentially identify patterns in future research related to this topic.

My hope is that once we start learning more about what makes us feel good and what is healthy for our cognition and ability to effectively do our jobs, we will start increasing our intake of those things by implementing them into our practices of self-care and proper balancing in nutrition, in and out of the work environment. While this research is specific to my perceptions and needs, I hope that increased self-care practices can be applied to those in the interpreting profession to improve their work while decreasing the mental strain and reduce some risks involved in working in a highly demanding occupation.

## References

American Counseling Association (n.d.). *Vicarious trauma*.

<https://www.counseling.org/docs/trauma-disaster/fact-sheet-9---vicarious-trauma.pdf>

Caccavo, M. (2020). *The effects of exercise and human relationships on interpreting* [Master's action research, Western Oregon University]. WOU Digital Commons.

<https://digitalcommons.wou.edu/maisactionresearch/11/>

Chadha, R. (2020, June). *The Junto Emotion Wheel: Why and how we use it*. The Junto Institute.

<https://www.thejuntoinstitute.com/blog/the-junto-emotion-wheel-why-and-how-we-use-it>.

Chin, D. (2019). *Embracing vulnerability: Exploring the need for strength-based interventions to support the mental health of sign language interpreters* [Master's action research, Western Oregon University]. WOU Digital Commons.

<https://digitalcommons.wou.edu/maisactionresearch/6>

Crezee, I., Atkinson, D., Pask, R., Au, P., & Wong, S. (2015). Teaching interpreters about self-care. *International Journal of Interpreter Education*, 7(1), 74-83.

[https://www.researchgate.net/publication/323796699 Teaching Interpreters About Self-Care](https://www.researchgate.net/publication/323796699_Teaching_Interpreters_About_Self-Care)

Darroch, E., & Dempsey, R. (2016). Interpreters' experiences of transference dynamics, vicarious traumatization, and their need for support and supervision: A systematic literature review. *The European Journal of Counselling Psychology*, 4(2), 166-190.

<http://dx.doi.org/10.5964/ejcop.v4i2.76>

- Dean, R., & Pollard, R. (2001). Application of demand-control theory to sign language interpreting: Implications for stress and interpreter training. *Journal of Deaf Studies and Deaf Education*, 6(1), 1-14. <https://doi.org/10.1093/deafed/6.1.1>
- Donner, A. (2012). *A biomechanical assessment of early and late sign language learners: Impact on work style and musculoskeletal disorder risk*. [Master's thesis, Rochester Institute of Technology]. RIT Scholar Works. <https://scholarworks.rit.edu/theses/8729/>
- Gibson, E. L., & Green, M. W. (2002). Nutritional influences on cognitive function: mechanisms of susceptibility. *Nutrition Research Reviews*, 15, 169–206. <https://doi.org/10.1079/NRR200131>
- Gordon, R. (2017). *The importance of self-care for ASL/English interpreters*. [Honors Senior Theses/Projects, Western Oregon University]. WOU Digital Commons. [https://digitalcommons.wou.edu/honors\\_theses/129](https://digitalcommons.wou.edu/honors_theses/129)
- Gregson, J., Foerster, S. B., Orr, R., Jones, L., Benedict, J., Clarke, B., Hersey, J., Lewis, J., & Zotz, K. (2001). System, Environmental, and Policy Changes: Using the Social-Ecological Model as a Framework for Evaluating Nutrition Education and Social Marketing Programs with Low-Income Audiences. *Journal of Nutrition Education*, 33, S4–S15. [https://ezproxy.wou.edu:4285/10.1016/S1499-4046\(06\)60065-1](https://ezproxy.wou.edu:4285/10.1016/S1499-4046(06)60065-1)
- Harvey, M. A. (2003). Shielding yourself from the perils of empathy: The case of sign language Interpreters. *J. Deaf Studies. Deaf Education*. <https://doi.org/10.1093/deafed/eng004>
- Humphrey, C. (2015). *Job satisfaction, role strain, burnout, and self-care among American Sign Language/English interpreters* [Master's thesis, Western Oregon University]. WOU Digital Commons. <https://digitalcommons.wou.edu/theses/24>

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24, 285-307.

<https://doi.org/10.2307/2392498>

Karasek, R. (1990). Lower health risk with increased job control among white collar workers.

*Journal of Organizational Behavior*, 11(3), 171–185. [https-](https://doi.org/10.1002/job.4030110302.pdf)

[/doi.org/10.1002/job.4030110302.pdf](https://doi.org/10.1002/job.4030110302.pdf)

Janz, N., & Becker, M. (2016). The Health Belief Model: A decade later. *Health Education Quarterly*, 11(1), 1-47.

[https://deepblue.lib.umich.edu/bitstream/handle/2027.42/66877/10.1177\\_109019818401100101.pdf;jsessionid=7693C09F16C2B271C6374F19317419D5?sequence=2](https://deepblue.lib.umich.edu/bitstream/handle/2027.42/66877/10.1177_109019818401100101.pdf;jsessionid=7693C09F16C2B271C6374F19317419D5?sequence=2)

Masterson, C. (2019). *"Pursue Some Path": Green space as a self-care method*. [Master's action research, Western Oregon University]. WOU Digital Commons.

<https://digitalcommons.wou.edu/maisactionresearch/8/>

McDowell, L., Hilfinger Messias, D. K., & Dawson Estrada, R. (2011). The work of language interpretation in health care: Complex, challenging, exhausting, and often invisible.

*Journal of Transcultural Nursing*. 22(2), 137–147.

<https://doi.org/10.1177/1043659610395773>

Morera, L. P., Marchiori, G. N., Medrano, L. A., & Defagó, M. D. (2019). Stress, dietary patterns and cardiovascular disease: A mini-review. *Frontiers in neuroscience*, 13, 1226.

<https://doi.org/10.3389/fnins.2019.01226>

- Moser-Mercer, B., Shreve, G. M., & Angelone, E. (2010). *Translation and cognition: The search for neuro-physiological correlates of expertise in interpreting*. John Benjamins Publishing Company. <https://doi.org/10.1075/ata.xv.15mos>
- Nacamulli, M. (Educator), Private Island (Director), & Anderson, A. (Narrator). (2016). *How the food you eat affects your brain* [Video]. TED-Ed. [www.ted.com/talks/mia\\_nacamulli\\_how\\_the\\_food\\_you\\_eat\\_affects\\_your\\_brain/transcript?language=en](http://www.ted.com/talks/mia_nacamulli_how_the_food_you_eat_affects_your_brain/transcript?language=en).
- Napier, J. (Editor). (2009). The real voyage of discovery. *International Journal of Interpreter Education*, 1, 1-6. Conference of Interpreter Trainers. [http://www.cit-asl.org/new/wp-content/uploads/2014/07/2009IJIE\\_Vol1.pdf](http://www.cit-asl.org/new/wp-content/uploads/2014/07/2009IJIE_Vol1.pdf).
- Office of Disease Prevention and Health Promotion. (2020, September 10). *Everyone has a role in supporting healthy eating patterns*. Social-ecological model. <https://health.gov/our-work/food-nutrition/2015-2020-dietary-guidelines/guidelines/chapter-3/social-ecological-model/>.
- Parletta, N., Milte, C. M., & Meyer, B. J. (2013). Nutritional modulation of cognitive function and mental health. *Journal of Nutritional Biochemistry*, 24(5), 725-743. <https://scholars.uow.edu.au/display/publication79652>
- Pöchhacker, F. (2004). *Introducing interpreting studies* (1st ed.). Routledge.
- Registry of Interpreters for the Deaf (2017). *About RID: Registry of Interpreters for the Deaf*. <https://rid.org/2017-annual-report/>
- Registry of Interpreters for the Deaf, Inc. (2005). *Code of professional conduct*. Alexandria, VA.

Schoenberg, B. (1999). *Interpreter Fatigue and Team Interpreting*. Sign On.

[http://www.signonasl.com/doc/interpreter\\_fatigue\\_and\\_team\\_interpreting.pdf](http://www.signonasl.com/doc/interpreter_fatigue_and_team_interpreting.pdf)

Schwenke, T. J. (2012). *The relationship between perfectionism, stress, coping resources, and burnout among sign language interpreters* [Doctoral dissertation, Georgia State University]. Scholar Works @ Georgia State University.

[https://scholarworks.gsu.edu/cps\\_diss/80/](https://scholarworks.gsu.edu/cps_diss/80/)

Schwenke, T.J. (2015). Sign language interpreters and burnout: Exploring perfectionism and coping. *JADARA*, 49(2), 121-144. <https://repository.wcsu.edu/jadara/vol49/iss2/7/>

Skovholt, T. M., & Trotter-Mathison, M. (2011). *The resilient practitioner: Burnout prevention and self-care strategies for counselors, therapists, teachers, and health professionals, second edition*. (2nd Edition) Taylor and Francis. <https://doi.org/10.4324/9780203893326>

Simpson, V. (2015). *Models and theories to support health behavior intervention and program planning*. Purdue Extension. Health and Human Services.

<https://extension.purdue.edu/extmedia/hhs/hhs-792-w.pdf>.

Stebnicki, M. A. (2008). *Empathy fatigue: Healing the mind, body, and spirit of professional counselors*. Springer Pub. <https://doi.org/10.1080/15487760701680570>

Stranges, S., Samaraweera, P.C., Taggart, F., Kandala, N.B., & Stewart-Brown, S. (2014). Major health-related behaviours and mental well-being in the general population: The Health Survey for England. *BMJ Open*, 4(9), e005878. <https://doi.org/10.1136/bmjopen-2014-005878>

- Theorell, T., & Karasek, R. A. (1996). Current issues relating to psychosocial job strain and cardiovascular disease research. *Journal of Occupational Health Psychology, 1*(1), 9–26.  
<https://doi.org/10.1037/1076-8998.1.1.9>
- Tremblay, A., Allard, L., Bouchard, C., Lavalee, N., & Despres, J.P. (1991). Nutritional determinants of the increase in energy intake associated with a high-fat diet. *The American Journal of Clinical Nutrition, 53*(5), 1134–1137. <https://doi.org/10.1093/ajcn/53.5.1134>
- Woodcock, K. & Fischer, S.L. (2008). *Occupational Health and Safety for Sign Language Interpreters*. Workplace Safety and Insurance Board Research Advisory Council Grant #0523 Toronto ON: Ryerson University.  
<https://www.ryerson.ca/content/dam/woodcock/pdfs/OHSGuideforSLI.pdf>
- Zenizo, A. L. (2013). *Self-care in the field of interpreting* [Master's thesis, Western Oregon University]. WOU Digital Commons. <http://digitalcommons.wou.edu/theses/3/>

**Appendix A**

## Likert Scale Rating on Alert Level

1	Tired
2	Moderately Tired
3	Moderately Alert
4	Alert
5	Focused

## Appendix B

### Nutritional Self-Care Recommendations

Skovholt (2011) cites Hays' 1999 symposium, which addresses other practice professionals in nutritional self-care recommendations; the list is provided below.

1. *"Happiness is a steady rhythm of blood glucose"* (Skovholt, 2011, p. 167). This is obtained by combining small meals with snacks throughout the day for consistent blood glucose levels.
2. *"Provide yourself with a regular routine of eating"* (Skovholt, 2011, p. 168). This process requires planning when and what to eat, as well as maintaining that structure and stability.
3. *"Breakfast is the one meal a day not to skip"* (Skovholt, 2011, p. 168).
4. *"Your body needs water"* (Skovholt, 2011, p. 168). It is important to drink plenty of water daily.
5. *"Befriend food and be flexible"* (Skovholt, 2011, p. 168). Recommendations include eating in moderation and having a consistent, balanced diet to ensure all nutritional needs are met.
6. *"Learn how to distinguish true hunger signals from other bodily or emotional signals"* (Skovholt, 2011, p. 168).
7. *"Learn for what your body is hungry and thirsty"* (Skovholt, 2011, p. 168).
8. *"Develop a long-term perspective with regard to eating habits"* (Skovholt, 2011, 168).

## Appendix C

### Biometric Screenings

#### Biometric Screening

Date	Body Mass Index	Waist Circumference	Blood Pressure	A1C	Glucose (Non-fasting)	Total Cholesterol	HDL	LDL	TG	Cardiovascular Risk
3/12/20	21.08	27	110/74	4.6	100	119	58	51	53	N/A
7/20/20	21.08	26.5	100/62	4.8	98	124	64	43	84	N/A

\* Dr. Note: slight increase in your average sugar and also your triglycerides. Both are still well within normal limits for health.

\*Waist circumference & blood pressure improved... can vary a bit over the day/time of month.