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Running head: THE IMPORTANCE OF SELF-CARE

The Importance of Self-Care for ASL/English Interpreters

By Rachel Gordon

An Honors Thesis Submitted in Partial Fulfillment of the Requirements for Graduation from the Western Oregon University Honors Program

> Prof. Erin Trine, Thesis Advisor

Dr. Gavin Keulks, Honors Program Director

June 2017

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Acknowledgements

I would like to thank everyone who has helped me throughout the process of writing my honors thesis. I would not have been able to accomplish this project without their support and encouragement. I would like to thank my thesis advisor, Erin Trine, for supporting me throughout this process; reading multiple drafts, and giving me the feedback I needed to continue writing. I would like to thank the Honors Director, Dr. Gavin Keulks for all of his support and encouragement over the past four years. I would like to thank my parents and sister for always supporting me in everything I do. I would like to thank Maia for reading multiple drafts and giving me feedback, and my college roommate Rowan for always supporting me throughout college and the two years I have been working on this project.

Abstract

American Sign Language/English Interpreters may experience many different injuries including emotional, mental and physical injuries by interpreting. Without the use of self-care these experiences may lead to more serious conditions that may cause an interpreter to leave the profession. This thesis will name some of the injuries that might happen while interpreting including Emotional, Mental and Physical. It will also list different ways that self-care can help prevent those injuries from occurring as well as look at a few different techniques for self-care that will hopefully help an interpreter prevent or reduce the risk of experiencing these kinds of injuries while working in the profession.

Chapter 1: Introduction

I am a senior in the ASL/English interpreting program writing this thesis to complete my coursework for the Honors Program at Western Oregon University. The topic of self-care caught my attention when I first started the Interpreter Education Program in the fall of 2015. As someone entering the profession of ASL/English Interpreting, I want to do everything I possibly can to support my future career. Taking care of myself is an important part of that goal. I have yet to experience an injury from signing or interpreting, and I am hoping that this research will help me and future colleagues prevent injuries from occurring. It will be better to take certain measures to prevent injuries from happening, than trying to heal an injury after it occurs. "Interpreters who are in good general health will be in a better position to manage stress of all kinds" (Woodcock et. al., 2008, p. 61).

I wanted to learn more about the types of injuries that were possible as an interpreter, and the different ways I can try and prevent myself from experiencing those kinds of injuries in my future as a professional. I am not a medical professional, and I am not studying to become a medical professional. Any techniques found below are merely suggestions; they may not work for everyone, but there is a chance they can be helpful in preventing different kinds of injuries. If someone has any concerns about a previous medical history, or any general health concerns please consult with a medical professional before changing or adding any of these suggestions into a previously set daily routine.

As cliché as it sounds, people tend to say, "that will never happen to me." Individuals continue saying that up until something happens, and then their words turn to "I never thought it would happen to me." These two sentences are two common excuses society

gives for not taking care of their bodies. In general the people push themselves to their personal limits causing them to burn out which can sometimes causes them to leave their chosen profession. "Allowing adequate time for rest must resolve two of the most compelling factors that lead toward overwork against the interpreter's better judgment: economic necessity and the altruistic need to fill unmet accommodation needs in the community" (Woodcock et. al., 2008, p. 55). Some of these events that happen can be prevented, or reduced, by adding simple self-care events into their lives on a regular basis.

Like other professions, American Sign Language/English interpreting has many mental and physical occupational hazards. Although the physical hazards may seem more obvious than the mental ones, both of these categories are equally important to incorporate into how someone takes care of himself or herself. There is a large need for interpreters to include self-care into their routines.

Mental and Physical self-care is important to keep up with the demands of the profession. Due to the many demands placed on an interpreter the only way to keep our bodies going is to take care of them. Any professional career can be compared to a running race. Humans cannot run at a sprit throughout their career. They have to run a marathon while taking care of their body so the marathon can continue and not fade out halfway through their career. If as professionals we do not train our bodies to withstand overtime, and do not give them a break, we will see an increase in burnout and individuals leaving the profession. In research done by Woodcock, et. al. (2008) it was found that "the nature of most injuries observed within the interpreting community were of a cumulative nature rather than a single event injuries" (Woodcock, et. al. 2008, pg. 24). As interpreters lean

and grow throughout their careers, it is important to realize we are not only adding experience, and knowledge, but also cumulating the sometimes-negative experiences both mental and physical. If these experiences are not dealt with as they appear, they may create an even bigger problem in the future.

In this paper self-care is defined as anything that can reduce the stress/impact of interpreting and prevent injury. Mental and emotional self-care is anything that will help relax one's mind while physical self-care will help relax any part of the body.

Chapter 2: Literature Review

Self-care in the field of interpreting is important in order for anyone to continue working in the field (Zenizo, 2013). Amy Zenizo (2013) defined self-care as different ways to stay healthy, including identified actions in order to promote different ways to stay physically and mentally healthy. Staying healthy will help not only the interpreter in their work, but in the time they are spending relaxing. Once someone is on a schedule the amount of time self-care takes will seem shorter. Zenizo (2013) goes on to say, "finding ways to release situations that have been perceived through the eyes, processed through their voices, and kinesthetically expressed with their bodies is the challenge" (Zenizo, 2013, p.18). In order to keep producing quality work for our consumers and clients, we have to figure out different ways to take care of ourselves in order to keep doing the work we do.

Definition

The UK Violence Intervention and Prevention Program have a definition for self-care. Although it is not directly related to ASL/English Interpreting it has points that relate well to the field of interpreting. It includes definitions for physical and mental self-care that are as follows: "Self care includes any intentional actions you take to care for your physical, mental and emotional health" (Minusthebox, 2015, pg. 1). Mentally the prevention program suggests counseling, writing in a journal or notebook, meditation or relaxation as well as having some leisure time with different activities that get people away from their normal everyday routine (Minusthebox, 2015).

The authors in the following section of this paper use specific medical and nonmedical terminology that is not necessarily defined clearly in their research. Some of this vocabulary includes, Empathy, Fatigue, Musculoskeletal Injuries, Repetitive Strain Injuries and Carpal Tunnel Syndrome. Even though self-care has an overarching definition each individual interpreter's self-care plan will look different.

Self-Care Plan

A self-care plan is a way for someone to make goals of how they are going to improve taking care of him or herself. There are general ideas of how to take care of one's body from the injuries and effects that will be listed below, but each individual has to figure out the best plan for themselves and stick to it, in order to maintain their health and continue interpreting effectively. For example a self-care plan might have groups of suggestions for relaxing or taking care of oneself. So for example someone can look at the list and pick out what they would like to do that day. For someone who would like more structure, it could have a weekly schedule or monthly calendar and the individual can put in self-care ideas such as exercising, stretching, extra hours of sleep, eating healthy, socializing with friends or family. "Everyone reacts to pressures differently and finds different things relaxing. For some it might be a routine of daily aromatherapy soaks, and for others it may be a week of whitewater rafting once a year" (Woodcock et. al., 2008, p. 60).

Part 1: Reasons for Self-Care

Self-care will be fundamental in preventing burnout not only in the field of ASL/English interpreting, but in many other professions as well. In any profession if someone does not take care of himself or herself, they might end up leaving that profession, due to injury or burnout.

ASL/English interpreting not only affects a person physically it can also affect them

mentally. There may be a list of reasons for someone to unintentionally avoid including self-care into their everyday lives. These things might include wanting to focus on studying in order to get a good education that will lead to getting a good job, or working a job or two throughout college, in order to get a degree that will lead to a steady job in the future.

These events take up a lot of time in someone's day. It may seem like they do not have time to include any extra self-care other than getting as much sleep as possible, and eating something throughout the busy day.

Self-care may seem like it has to be something someone has to do every day that does not fit with our schedules. But, self-care can be something as easy as eating healthy food, getting enough sleep, cleaning the house, or any other everyday activity that may help one feel more relaxed. For some people a simple thing such as drawing or coloring can help them feel more relaxed and ready to take on more at work. Some examples of everyday self-care might include listening to music, playing with animals, watching a movie, or for some people any form of exercise.

People have to be open, willing, and motivated, to include self-care into their life. If they are not motivated there is a good chance it may never actually happen, even if it is planned. This is because self-care is something that people are not required to do and other people are relying on it getting done.

Although all kinds of self-care may help anyone in any profession, there are many ways that not incorporating self-care as an ASL/English Interpreter may cause damage. Not involving self-care into a daily or even weekly routine may cause both mental and physical injuries in the future.

Part 2: Empathy and Emotion

As professionals, interpreters accept both interpreting assignments as well as sometimes other kinds of work not related to ASL/English Interpreting. Accepting assignments, or at some companies and institutions full time interpreting work can place a lot of stress on an interpreter. Zenizo (2013) wrote her masters thesis on self-care in the interpreting field. If an interpreter experiences a vast amount of empathy while interpreting it may "lead to long-term problems regarding the way one experiences and deals with one's own life situations and the world" (Zenizo, 2013, p. 20-21) while also having a long lasting impact on him or her. Even if the interpreter was not the person saying specific things they are still involved in the situation and saw it first hand, as well as having to interpret it so everyone in the assignment understands what is happening. If someone is interpreting an intense situation they might feel like since they are producing the signs, or speaking the words that they are the one's saying this information.

An interpreter who accepts an assignment is supposed to be a neutral person who will facilitate communication for the clients involved. Even if this is something we would like to accomplish Harvey (2003) writes that "many interpreters noted, "we're supposed to be neutral," they also acknowledged that this goal is psychologically unfeasible on an emotional level. It is possible to *act* neutral in high-stress situations, but one cannot *feel* neutral" (Harvey, 2003, p. 207). This is a very important thing to realize for any profession; no one can ever feel completely neutral about a situation they are put in. In the end the interpreter will most likely sway to one side or the other. It is important to know how including empathy in one's work might affect them personally. As well as knowing how to

control their own empathy so they do not become emotionally hurt or negatively impact the interpretation they are providing for a specific assignment.

Some interpreters experience more empathy while working than others. Harvey (2003) mentions in their article that it is important to remember that, "while experiencing the emotional fusion of empathy, it is vital to cognitively remind yourself who you are" (Harvey, 2003, p. 210). An interpreter's work does not define who they are. Yes, it is important to be professional, a competent, and qualified interpreter, but interpreters are also human, and they may make mistakes, and may feel overwhelmed at times. Not everyone has the same reaction to feeling empathy as others. Each individual interpreter will have their own personal reaction, and have to work through those feelings in a way that will best suit their needs.

During the course of a person's life they are most likely to act neutral during a situation at least once in their life. They put on a face for the time they are out in public and then they get back home or in their car to drive somewhere and break down, are no longer putting on the act of being ok or being a neutral person and start to feel all of those emotions they cooped up all day. It is important to find a way to release all of that emotion in order to move on with the rest of the day, and not have things that happen during the workday negatively impact the rest of the day.

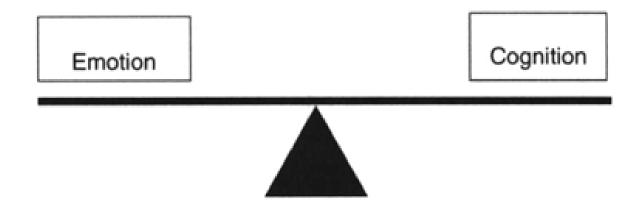
Although Mark A. Stebnicki's (2008) article is aimed towards the counseling profession and how they deal with empathy, it can relate to an interpreter's work. Stebnicki (2008) emphasizes this by saying that "many counselors spend a tremendous amount of time and energy acting in compassionate and empathetic ways searching for the meaning of

their client's mind, body, and spirit that has been lost to trauma" (Stebnick, 2008, p. 802). A client in the interpreting profession could be talking about any sort of topic. It is likely that the interpreter will not know everything that is going to be said before going into an assignment or setting. Some of the things a speaker says could have an impact on the interpreter. In order to be an effective interpreter, people in the profession have to be empathetic so we can show the emotion through our signed or spoken interpretation (Harvey, 2003).

Another thing that has a large impact on interpreters is the oppression they witness while interpreting for Deaf consumers. This may be in small comments a consumer uses, or the terminology they use that might not be the best or most appropriate way to phrase the sentence. Even though all of this happens the interpreter should follow the Code of Professional Conduct and interpret what the consumer says even if it is oppressive, offensive, or rude, they might feel uncomfortable or empathetic with the consumer they are providing information for. It is important to keep reminding ourselves that as interpreters they are facilitating communication, and the hurtful words are not their own.

Even though this paper is focused on ASL/English Interpreting, other signed languages can benefit from this information. ASL/English Interpreters can also learn about the profession from other languages interpreters. The Freelance British Signed Language Interpreting Services states in their article, "if the interpreter feels overwhelmed by the empathy they are feeling towards the Deaf person, then in my views, this is the time interpreters need to focus on self-care" (CCH Interpreting, 2015, pg. 2). The diagram below from Harvey's (2003) article portrays an important point to keep in mind. If cognition or

emotion takes over, boundaries will be passed. If interpreters have too much emotion while working, they might overcompensate and cross some of the interpreter boundaries that are set up in the profession. Harvey (2003) mentions in a diagram he labels the empathic balance, stating that "there are three possible consequences of empathy, depending on how one balances components of cognition and emotion: (1) an imbalance with too much emotion, leading to a loss of boundaries; (2) an imbalance with too much cognition, leading to affective constriction (numbing out); and (3) a healthy balance, leading to psychological integration and better interpreting" (Harvey, 2003, p. 209).



Harvey, 2003, p. 209

Most humans have a compassionate side that feels for others, even if it is not shown outwardly. Even if it is not shown on a daily basis, most people will have some kind of reaction to the things they witness throughout their life. If they do not feel the weight of someone's story in the moment, it might come at a later time. If nothing is done to resolve those feelings of pain or sorrow for someone else, they will continue to carry their burden around with them.

Taking on too much of someone else's emotion can leave a scar. If someone

empathizes too much with a group of individuals it can have an impact on their day-to-day activity. People who over empathize with other's pain and suffering can greatly impact their own lives if they do not properly analyze and debrief what they have experienced. Harvey (2003) mentions, "There are inherent dangers of emotionally empathizing with another's pain without the psychological "protection" of self-affirmation" (Harvey, 2003, p. 211). Harvey (2003) calls it "protection" or "self-affirmation," but I see it as self-care. Being able to take care of oneself after a day that might be filled with emotional hardship. Harvey (2003) goes on to say that "balancing the dual nature of empathy—the "I feel your feelings" and "I am still me"—is often easy to say but hard to do, particularly in times of stress and when psychologically traumatic memories get activated" (Harvey, 2003, p. 211). Having a plan to take care of the mental aspects of one's work can help prevent ongoing emotions that may build up over time if they are not dealt with in the proper manner.

Part 3: Mental Impacts of Interpreting

Mental aspects of ASL/English Interpreting may not seem like a requirement for self-care. Mental self-care must be important because Harvey (2003), Zenizo (2013), Schroenberg (1999), Stebnicki (2008), and Woodcock et. al. (2008), all wrote articles or papers about the mental and sometimes physical aspects of interpreting. This is important to think about for someone who is pursuing or continuing a career in American Sign Language/English Interpreting.

Mental Fatigue

In order to reduce the impacts of an interpreter's mental fatigue, some assignments, might be interpreted in a team. In most situations a team of interpreters work together in

assignments that are over an hour in length. Some assignments that are only an hour long are teamed, but it will depend on how many interpreters are available, and the content of the assignment as well as other factors. When interpreters work in teams they typically take turns as the "on" interpreter for twenty minutes, while the other interpreter, writes notes, vocabulary, or supports the "on" interpreter if they miss something that was said. Beth Schroenberg (1999) wrote an article on interpreter fatigue and team interpreting. She states, "One of the most common questions asked of sign language interpreters and interpreting agencies regards the use of two (or more) interpreters for one assignment" (Schroenberg, 1999, p. 1).

The research that has been done "has shown that both spoken language and sign language interpreters begin to experience mental fatigue after approximately 20 minutes of work, leading to errors in production" (Schoenberg, 1999, p. 1). This is why team interpreting is such a crucial part of any interpreting assignment. The team interpreter relieves the "on" or working interpreter. They can also work as a team by, feeding signs; or a sentence one of them did not catch. The "on" interpreter is referring to the interpreter currently working on meaning transfer in the assignment, and the "off" or team interpreter is watching the working interpreter and supporting the interpreter when they need help.

Supervision

One thing that has been mentioned in many sources includes the need for counseling or supervision within the field of interpreting. Supervisions allow interpreters to have a space to work through things that happen in their interpreting assignments while still keeping information confidential in order to not expose their client's identity, or

breaking the code of professional conduct set up by RID, or going against their own ethical values. By working through the steps outlined in the book, interpreters can get feedback and advice on situations that occur during the assignments they are on.

Supervision does not only have to be with a colleague, "a friend I know who is a counselor has supervision on a weekly basis. If the information interpreters hear is sometimes similar to that of counselors (e.g. accounts of abuse; domestic violence; working in mental health; etc.) then why are we not as an interpreting profession encouraging more interpreters to seek supervision to help towards self-care?" (CCH Interpreting, 2015, p.2).

Dean and Pollard wrote a book in 2013, *DC-S The Demand Control Schema:*Interpreting as a Practice Profession. The book uses the word demand to explain the situations that may come up while interpreting if it is an something in the environment, the relationship between the interpreter and consumers, or two consumers, and the paralinguistic or changes in speech or signing styles an interpreter may experience. It discusses the topic of supervisions on the demands a job brings and the controls someone could put in place in the future if this situation were to ever come up again. These supervisions are one way to include self-care into an interpreter's life. It will help sort out the problems with the case and figure out how to deal with what is left (Dean et. al., 2013).

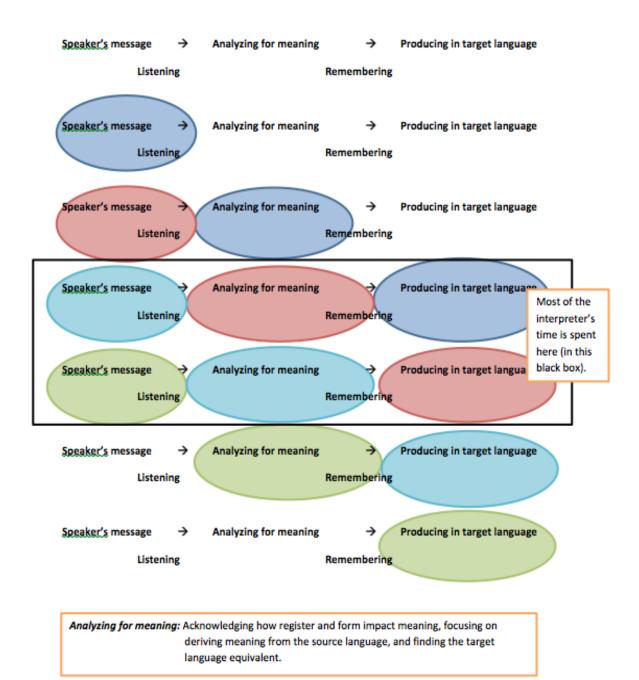
Interpreting Process

In some interpreting settings interpreters can work long hours without a mental break, and in some cases without a team. This kind of work will cause a decrease in productivity and quality of the language they are producing. If an interpreter is in a presentation or formal setting their mind is doing three things at once the whole

presentation. This is called the interpreting process, and can be shown in the model I made with a colleague below. Due to the fact that interpreters are doing three things at the same time, the process of interpreting takes up a lot of mental energy.

The model below shows the different phases of the interpreting process. At one time the interpreter will be listening to the speakers message, analyzing the message for the meaning, and then producing the message in the target language. The different colors in the model show the different sections of content that are being interpreted. The blue at the top shows that at first the section that is being interpreted is only being listened to, but as more information comes the blue section is being analyzed for the meaning, while the red section, is content that is just being said. This process continues until the assignment is over, or until the speaker or presenter stops talking. In the middle of the model, the black box is where most of the interpreting assignment takes place. All three sections, listening, analyzing, and producing are happening at the same time.

Interpreting Process Model: The "Not-So" Linear Model.



Tricia Desrosiers & Rachel Gordon

Desrosiers, P., Gordon, R. (2015).

The field of ASL/English Interpreting has evolved over their years and has taken many different forms. Even though not all of the interpreting models that have been presented over the years have included self-care, they all show the complexity of interpreting, and from that we can see the need for self-care and rest from the trauma interpreting may cause. Even in its early days interpreting still had the same amount of mental pressure it has today.

Part 4: Physical Impacts of Interpreting

The idea of losing the use of one's hands is terrifying to the average individual. If something happens, and an interpreter cannot sign properly it is not wise to interpret until the injury is completely healed. "Professional ASL/English Interpreting represents an occupational work group potentially exposed to a combination of ergonomic and psychosocial exposures that make it ideal for the investigation of multiple factors involved in work-related upper extremity disorders" (Feuerstein et. al., 1997, p. 188). Physical injuries can impact a person's work in any profession, although it has also been said that, "over the years, many interpreters have suffered debilitating RMIs or Repeated Motion Injuries. Some have consequently had to leave the profession. With the scarcity of interpreters already an issue, this is something we can ill afford" (Schoenberg, 1999, p. 1). Because of these facts, it is important for interpreters to know what could happen to them physically while they interpret so they can take preventative measures using self-care to prevent these events from occurring.

When an interpreter is working on an assignment, they might be subconsciously or unknowingly moving their wrists in an unhealthy position. "In relation to sign language

interpreting, it is possible that a heightened concern over quality of work (a need to achieve) requires that the interpreter pay particular attention to detail involved in the message being interpreted, and that this in turn, leads to increased biomechanical exposure (e.g., increased wrist deviations from neutral)" (Feuerstein et. al., 1997, p. 202). The biomechanical exposure in this case being the wrists staying in a non-neutral position, for an extended period of time causing discomfort or pain that can lead to more serious physical injuries. Having the tools to reduce the physical impacts of interpreting will cause less stress on one's body both mentally and physically. Some neutral positions will be listed in the next section titled: Mental/Physical Self-Care Techniques. "The role of psychosocial and physical stressors in the exacerbation of work-related upper extremity symptoms and lost work time and suggest that interventions directed at reducing job stress and modifying work style should assist in the prevention and management of problems in this work group" (Feuerstein et. al., 1997, p. 203).

Other groups of people are recognized as a population that is at risk for hand or wrist disorders, but Smith et. al. (2000)'s article mentions that even though "sign language is the fourth most used language in the United States, yet sign language communicators have been largely ignored as a population at risk for the development of hand/wrist disorders (Podhorodecki & Spielholz, 1993)" (Smith et. al., 2000, p. 22). A number of factors have been proposed to contribute to the development, exacerbation, and maintenance of occupational upper extremity disorders among American Sign Language/English interpreters. These factors include the biomechanical variables of force, repetition, awkward postures, and inadequate rest or recovery (Feuerstein et. al., 1997, p. 188).

Warning signals by the body may be ignored, thus increasing the risk of musculoskeletal problems. When interpreters ignore these warning signals is when they really get in trouble with their bodies. Feuerstein et. al. (1997)'s article indicates that interpreters who work while experiencing pain have different patterns than interpreters who do not work while experiencing pain for example:

"A study of sign language interpreters indicated that those interpreters working with pain demonstrated a different pattern of interpreting (e.g., fewer rest breaks, higher number of wrist deviations from neutral) than asymptomatic interpreters and that this work- style was correlated with increased symptoms. These findings indicate that exposure to biomechanical stressors associated with a given job can exist independent of a specific tool or device. They also suggest that how an individual performs work may actually exacerbate and maintain symptoms" (Feuerstein et. al.,1997, p. 189)

Musculoskeletal Injuries

Occupational Health and Safety for Sign Language Interpreters mention that "Musculoskeletal injuries have long been recognized as an occupational hazard of sign language interpreting" (Woodcock et. al., 2008, p. 23) There are many factors that have been known to contribute to upper extremity disorders including musculoskeletal injuries. "These factors include the biomechanical variables of force, repetition, awkward postures, and inadequate rest or recovery" (Feuerstein et. al., 1997, p. 188). This is one of the reasons why self-care is so important. All of these injuries can happen to anyone, not only ASL/English Interpreters.

Unlike other musculoskeletal-injury prone professions, interpreting is unique because no force is actually being applied onto an object. The interpreter is moving their hands and putting pressure and force on themselves while they sign (Woodcock et. al., 2008, p. 36). Due to the fact that the interpreter is moving their own hands and causing

pressure without another object, interpreters might not be able to identify exactly what aspect of interpreting caused the injury. Although nothing outside the interpreters' body is impacting their joints, some signs require hand-to-hand contact. "The main biomechanical hazard of interpreting is producing signs, and sign production is inherent to the activity and cannot be eliminated. Some needless risk of injury can be reduced by modifying signing technique but there is a close link between signs and sign production and some situational factors" (Woodcock et. al., 2008, p. 37).

In the research done by Feuerstein, Carosella, Burrell, Marshall, and DeCaro (1997), they noticed that, "the greatest percentage of reduced interpreting hours or assignment to a different or lighter schedule was associated with symptoms in the hand/wrist" for any type of musculoskeletal injury (pg. 196). The image below shows the percentage of pain felt in the upper extremities in sign language interpreters. The hands, shoulders, neck, and forearm have the highest percentage partly because they are the muscles and parts of one's body being used the most while one is interpreting. Whereas the elbow, upper back, and lower back, still show there is pain, but it is not quite as frequent as the first places mentioned.

Occupational Upper Extremity Symptoms

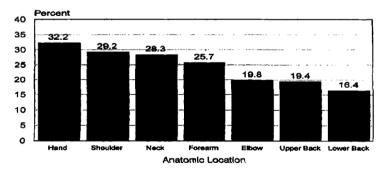


Fig. 1. Prevalence of occupational musculoskeletal symptoms in sign language interpreters. Note: N=1398.

Feuerstein et. al., 1997, p.195

"Interpreting involves many more biomechanical demands on the shoulders arms and hands beyond posture that can be reflected through musculoskeletal injuries"

(Woodcock et. al., 2008, p. 16). A neutral body posture can be the most beneficial in order to reduce the impacts of interpreting. Occupational Health and Safety for Sign Language Interpreters (2008) defines neutral posture as each joint being free in its preferred position kind of like floating weightless in space or in a swimming pool (Woodcock et. al., 2008, p. 16). Neutral positions may feel strange to some people especially while doing other things, but in order to take care of our bodies interpreters need to keep their body in a neutral position as much as possible.

As with any kind of work out, or activity warming up can be essential to increasing productivity or performance. This is because "warm-up exercise increases blood flow to your muscles. Blood flowing to your muscles brings nourishment and gets rid of waste byproducts in the muscle tissue. Improved circulation can help shorten recovery time from muscle joints" (Woodcock et. al., 2008, p.58). As Woodcock et. al. 2008 says the warm-up will increase blood flow to muscles which will improve the joints movements while

interpreting. Along with warming up it is important to remember that when we are interpreting to put our hands down when there is a break in the assignment. Even the slightest break while processing information can give just the amount of rest one may need in the middle of an assignment.

A non-neutral position according to Occupational Health and Safety for Sign Language Interpreters puts more force on the muscles, ligaments, tendons, and puts one's posture outside of the neutral range of motion (Woodcock et. al., 2008, p. 16). Even though it may seem normal and natural in today's era, "non-Neutral hand positions might be involved with the use of handheld electronics" (Woodcock et. al., 2008, p. 16). It is a daily norm for individuals to be connected to different handheld electronics. "In today's world it is very uncommon for an adult to not have a cell phone. Having a cell phone requires repetitive hand movement with a tight grip that might cause pain to one's hands or wrists" (Woodcock et. al., 2008, p. 19). With all of the time teenagers and adults in American spend with a piece of electronics in their hands, they do not realize what they are doing to the muscles in their hands and wrists. Each time someone spends any amount of time holding onto some kind of technology they should also spend time giving their hands and wrists a rest from signing, or texting etc. Without realizing it the human population through the use of small handheld devices are increasing their risk for a physical musculoskeletal injury. Holding onto electronics too tightly can cause immediate and long-term damage to someone's hands, wrists and arms. Although The Occupational Health and Safety for Sign Language Interpreters article mentions these symptoms not with cell phones but with Personal digital assistants (PDA's) and pagers/mobile phone keypads, it can also apply to

cell phones and smartphones, and other small electronic devices.

Each injury mentioned will have its own recovery time. Just because something took a certain amount of time to heal does not mean that another injury will take the same amount of time. Woodcock et. al. (2008)'s article Occupational Health and Safety for Sign Language Interpreters includes a diagram with some of the injuries and the amount of time it would most likely take to fully heal. This diagram can be found in Appendix A. If someone were to return to work too soon after experiencing any of these injuries it could make their injury and recovery time worse, or cause them to have to stop interpreting for a longer period of time than they might have expected. "If pain is absent, it can be tempting to resume work as normal. If the absence was required to recover or receive treatment of injury, the past injury experience should be long enough to convince the interpreter that the past workload is capable of causing injury" (Woodcock et. al., 2008, p. 52).

Carpal Tunnel Syndrome

Some of the most common injuries include, tendonitis, and nerve impairment which can sometimes lead to Carpal Tunnel syndrome (Woodcock et. al., 2008 p. 23). Carpal Tunnel Syndrome can be directly impacted by an interpreter's joint angle. Pressures keep increasing as individuals move away from the neutral hand positions, leading to increased friction and micro trauma (Woodcock et. al., 2008, p. 33). Victims of carpal tunnel syndrome experience pain and other symptoms ranging from numbness of the hands or fingers at night (severe enough to cause awakening) to an inability to grasp objects firmly" (Smith et. al., 2000, p. 23). As with recovery from any kind of injury, "for those with carpal tunnel syndrome, continuing the problem motions without adequate care or rest can further

damage tissue and nerves and eventually can prohibit the individual from continuing his or her regular work or home activities" (Smith et. al., 2000, p. 23). Carpal Tunnel Syndrome involves the nerves running through the lower arms, fingers, and hands.

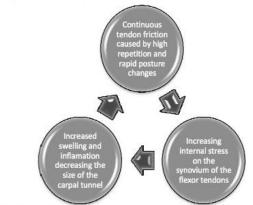


Figure 8. Vicious cycle of progressive injury resulting from high repetition, long duration, and rapid postural changes. A carpal tunnel example.

Woodcock et. al., 2008, p. 26

Repetitive Strain Injuries (RSI)

Most injuries observed in the interpreting community were built up over time rather than from a specific event (Woodcock et. al., 2008, p. 24). For example the RSI, Repetitive Strain Injury, is a common injury for interpreters to come across. "The United States Bureau of Labor Statistics (2007) reports that the most prevalent and fastest growing occupational injuries are RSIs, which occur when stress and fatigue overpower the body's natural ability to heal itself" (Freeman, 2010, p. 2). "The term RSI is often used when there is a collection of symptoms with no easily identifiable anatomical injury and where static or highly repetitive postures with multiple anatomical exposures are involved (Sanders, 2004)" (Freeman, 2010, p. 2).

Most interpreters do not know they have RSI, until the injury becomes serious and

the interpreter experiences a lot of discomfort (Woodcock et. al., 2008, p. 29). According to Woodcock et. al. (2008), Repetitive Strain Injuries have three stages. The first is pain or discomfort but only at work, or while interpreting. The second is when the pain continues up until about two hours after the individual stops working and the third is when the pain continues onto the following day (Woodcock et. al., 2008, p. 29). Repetitive Strain Injuries are one of the most common type of musculoskeletal injuries in the field of interpreting and are caused by different movements that occur multiple times in a row, eventually these movements will cause more discomfort and pain and not feel normal while one is signing or interpreting.

Movements Causing Pain

"Increased movements of the hand and wrist led to increased prevalence of injury (Marras & Schoenmarklin)" (Woodcock et. al., 2008, p. 32). This increased movement can cause any kind of pain to an interpreter, but causes the most pain in the hand and wrist sections because that is the part of an interpreter's body that moves the most while they are working. "[Interpreters] are also required to perform forceful movements combined with awkward postures for extended periods of time without rest" (Freeman, 2010, p. 2). Due to this fact, any time an interpreter can put there hands down to rest, they should. For example, if they are working and the presenter is taking a break or there is a break in the presentation the ASL/English Interpreter should put their hands all the way down to the side of their body in order to rest all of the muscles in the arm. Some of the movements interpreters perform on a daily basis can cause injuries more frequently than others.

"The most frequently performed movement pattern involved motions of the fingers and wrists with the most frequently performed motion of flexing and extending the

wrists followed by bending and straightening the fingers and moving the wrist from side to side. The motions associated with the highest frequency of pain were flexing and extending the wrists followed by maintaining a standing position and bending and straightening the fingers. The movement patterns associated with the highest severity of pain were maintaining the standing position followed by flexion and extension of the wrists and flexion and extension of the fingers" (Freeman, 2010, p. 3).

Anything extreme no matter the profession should be avoided to prevent injury from occurring. Typically there is another way to get the task done that does not involve extreme measures if it is relating to movements or not. A neutral position can help reduce the impact of movements to joints and muscles. "Biomechanical risk is reduced by promoting neutral joint angles and avoiding the extremes of any joint's range of motion. As joints move through the range of motion, the tissues translate over each other, creating friction. Friction may be increased at extremes of the range of motion, as tendons are no longer working their optimal position" (Woodcock, et. al. 2008, p. 33). Even though Woodcock et. al. (2008) mentions that neutral joint angles and neutral hand and arm positions are helpful in preventing injury, they may seem awkward at times. The different positions we put our hands in when we are not interpreting including various sleeping positions, driving, and working with various technological devices impact the joints an muscles along with the "hands up" interpreting time.

Interpreters tend to strike their hands against each other more than other things, although signing can cause the interpreter or general signer to occasional hit objects or themselves while working or signing. These types of injuries do not have to happen while interpreting. An ASL/English Interpreter needs to be careful about the kinds of situations they put themselves into and be aware of possible outcomes that could result in injury of

any part of their hands or arms, the "conventional injury prevention guidelines advise against striking objects with the hand because doing so causes brief compression stress on the point of contact in the hand, and sends shock waves through the local circulatory system" (Woodcock, et. al. 2008, p. 36).

The chart below shows the amount of time muscles and joints are working before they need rest, and the amount of rest that is then required between exposure of those same muscles and joints. The information is from Woodcock's article titled Occupational Health and Safety for Sign Language Interpreters.

Table 2. Factors increasing and decreasing Work-Rest durations

Length of time exposed before rest is needed		Length of rest required between exposures	
Increased by	Decreased by	Increased by	Decreased by
Neutral posture Less joint acceleration Psychosocial comfort of the situation Physical relaxation of muscles	Non-neutral posture More joint acceleration More sign production outside optimal zone Psychosocial stress in the situation or in general Muscle tension Fine bone structure/ small joints Hormonal or other causes of swelling Deconditioning due to recent work absence	Longer exposure since previous rest Symptoms and signs of injury Muscle tension (related to stress or overwork)	Shorter exposure since previous rest Good nutrition Appropriate stress management

Woodcock, et. al. 2008, pg. 42

Voice Strain

ASL/English Interpreters, interpret into both American Sign Language and English depending on the context and the setting they are placed in. Voicing or interpreting into English can cause voice strain, and brings up the need for vocal rest. Because everyone's voice has different strengths and weaknesses, this section might not apply to everyone, but

it is still good to be on the lookout for, because it could happen to anyone. "Vocal chord strain has been noted as an occupational health concern of professions that voice continuously or who must project their voices" (Woodcock, et. al. 2008, p. 19). Interpreters work in all different kinds of settings. Some settings require an interpreter to use a microphone, while others do not. Even if someone does not like hearing their voice through a microphone, if one is offered in a large setting, it would be better to use it than strain or possibly hurt their voice.

Nerves

In a section of Woodcock, et. al. (2008)'s research they mention that, "nerves are the electrical system of the body, carrying sensory cues to the brain about the shape, texture, and temperature of things we touch and the position of our body parts" (Woodcock et. al., 2008, pg. 26). Since nerves are "electrical system of the body" they can be sensitive to different movements, or pressures someone may place on their body. Nerve damage can cause serious problems if certain nerves are damaged.

"Nerve entrapments occur when the space through which the nerve travels is reduced by swelling, inflammation or increases in fibrous material of other tissues in the area/ This is particularly problematic in the carpal tunnel, where the median nerve travels to the hand through a small space (the carpal tunnel) also occupied by all the tendons of the hand" (Woodcock, et. al. 2008, pg. 26).

Symptoms

There are many symptoms of physical injuries ASL/English Interpreters can experience. Woodcock, et. al. (2008), lists quite a few. Before looking at the different symptoms an interpreter might experience it is important to note that, "if your pain or discomfort lingers for two hours after completing the work, you should seek medical advice,

and closely monitor symptoms as well as continuing to adjust your schedule, improve your rest and recovery regimen, and implement other strategies" (Woodcock, et. al., 2008, p. 49). A small symptom shows that our bodies are not enjoying what they are experiencing and wants to send and alert to change that behavior before the condition becomes worse. First they list the symptoms that individuals themselves can only identify. These symptoms could be from activities other than interpreting, but they could be a sign of overuse or injury due to ASL/English interpreting. These include:

- Excessive fatigue
- Numbness, tingling
- Pins and needles
- Aching, burning
- Cramping
- Stiffness
- A swollen feeling
- Weakness
- Persistent or severe pain or being awakened by pain
- Perception of "clumsiness" of manual movements"
- Discoloration
- Swelling or lumps or bumps
- Abnormal temperature
- Reduced range of motion
- Reduced grip strength
- Reduced sensory perception
- Movement causing pain
- Internal inflammation (Woodcock et. al., 2008, p. 48)

These symptoms are for musculoskeletal injuries including, Repetitive Strain Injuries and Carpal Tunnel Syndrome. Feuerstein et. al. (1997) mention in their study that the most frequent pain interpreters reported was aching. Other symptoms included "stiffness, burning, numbness, or tingling in the neck region followed by symptoms that were experienced in the hand/wrist region" as well as the symptoms stated below in the

symptoms section (Feuerstein et. al., 1997, p. 194). If any of these symptoms occur an individual should get themselves checked out by a doctor, because it is easier to reduce effects earlier while only one symptom is showing than later when four or five different symptoms are showing.

If an individual ignores the symptoms, like most people do, they might end up burning out, or being forced out of the profession of interpreting for reasons that could have been prevented or avoided altogether. The Occupational Health and Safety for Sign Language Interpreters agree with this statement by saying that "prevention of this type of injury can focus on preventing the causative event, and treatment can be immediate" (Woodcock et. al., 2008, p. 24). Immediate treatment of any injury like any disease or syndrome can have a better chance at a full recovery.

These symptoms are all important for interpreters to keep in mind as they continue their work in the profession. If any of these symptoms, or any other symptoms, start to show up it would be wise for interpreters to try and add more self-care and relaxation into their routines. If is also important to keep in mind that some symptoms are not signs of injury just a sign of starting to condition a new muscle. "The initial soreness of starting a new job or sport is often merely the process of conditioning. The same might occur after an extended vacation or time spent doing different work. When conditioning is lost it must be regained" (Woodcock et. al., 2008, p. 48). Even though it may seem like some of these symptoms can be addressed and identified by a non medical personal, but they will be better taken care of if they are diagnosed by a medical professional. By being able to recognize these mental effects, physical injuries, and symptoms, interpreters will be able to

prevent these kinds of things from happening. All of the authors and sources cited in this section, share good advice, and give exquisite detail about the mental and physical effects of ASL/English Interpreting.

The emotional, mental and physical impacts of ASL/English interpreting can increase the likelihood of interpreters leaving the profession. The injuries and symptoms stated above are some of the impacts someone may experience from interpreting without properly taking care of themselves. Each individual will have a different technique and plan that works well in their schedule as well as is best for their mind and body. Looking at the injuries and symptoms one could experience hopefully changes our perspective on how we treat ourselves on a daily basis both when working and on our time off. Injuries such as Repetitive Strain Injuries (RSI), Carpal Tunnel Syndrome (CIS), and musculoskeletal injuries, if they are not treated quickly can escalate to surgery and even more time off from work, if not a change in career.

When interpreters ignore the warning signs and symptoms of these injuries, they increase the likelihood of permanent damage and having to leave the profession due to an injury or burnout. The small things we can do for ourselves will increase the health of our lives both for our careers and our normal everyday lives outside of work. If we take care of our bodies by doing small things on a daily weekly or monthly basis we can lead healthier lives and probably enjoy life and our work more than we might currently.

Part 5: Mental and Physical Self-Care Techniques

Due to all of these injuries and hazards, it is important for interpreters to set aside time for self-care. As stated above in the self-care Plan Section, each individual self-care

plan looks different. This is because people have individual needs. Although the self-care plans will look different, it doesn't mean interpreters cannot learn from each other and borrow ideas that were successful for one of their colleagues. This is also where supervision and counseling can play an important part in the interpreting profession. Talking with other interpreters both new and more experienced can bring different perspectives to different problems that arise.

Meeting basic human needs should be at the front of everyone's mind on a daily basis, but it is not. As people grow up they become busier, with school, and then work, and then relationships, and more work that turns into a career. Along with a career comes more responsibilities, and seemingly less time to take care of themselves. Without knowing this "less time" can be detrimental to one's career they have worked so hard for. Creeze et. al. (2015) mentioned in their paper that, "Mentioning the benefits of enough rest and a healthy diet might appear superfluous; however, busy people often fail to ensure that they meet these basic needs. Adrenaline and contextual psycho-physiological stimulation allow people to temporarily forget that they are hungry or tired. This may be beneficial in the short term, but cutting back on meals and sleep has long-term negative effects on physical and mental health." (Creeze et. al., 2015, p. 78) Many people may experience this if they are involved in the profession of interpreting or not. Along with the basic human needs, exercise can be a good way to incorporate self-care into someone's routine. Getting enough sleep is also a crucial part of staying healthy.

Ellen Bard (2016) wrote an article for the website Tiny Buddha titled "45 Simple Self-Care Practices for a Healthy Mind, Body, and Soul." Although this website and article are not

specifically for sign language interpreters, it can still apply to the types of self-care interpreters can use. She explains her mental and physical self-care tips as tiny self-care ideas for the mind or for the body (Bard, 2016, p. 3). One thing she mentions is that "self-care isn't a one time deal, it's the constant repetition of the tiny habits, which together soothe you and make sure you're at optimum – emotionally, physically and mentally " (Bard, 2016, p. 2-3). Bard (2016) includes a list of self-care ideas for both the body and the mind. Some of the ideas on the list include the following:

- Start a complements file
- Create a deliberate habit
- Unplug for an hour
- Get out of your comfort zone
- Edit social media feeds, and take out any negative people
- Taking deep breaths
- Run or walk for a few minutes
- Make healthy food choices
- Get fifteen minutes of sunshine
- Laugh
- Take naps
- Help someone
- Write out thoughts
- Play with an animal or pet
- Ask for help (Bard, 2016, p. 3-6)

All of these are merely suggestions and ideas for self-care. The main point she makes is that the tiny habits will accumulate over time and become more helpful than trying something once and thinking it will change everything right away. Some of these tips may seem obvious, but the more we think about how we feel when we incorporate these things in our lives, the more we will realize how much they help us succeed. Some of the things on Bard (2016)'s list do not seem important until they come back into someone's life. For example, whenever the sun would come out when I was in college in Oregon, I would feel

instantly better and happier, without realizing why I was feeling this way. This is because I grew up in a sunny place and am not used to the change of weather. Along with these suggestions another article found in research talks about the importance of stretching.

Stretching is also a good way to incorporate self-care into everyday activities.

Freeman et. al. (2010) have a section of recommendations in their article titled "Identifying Movement patterns and Severity of Associated Pain in Sign Language Interpreters." Within their set of recommendations the authors mention different stretches interpreters can use to increase range of motion and in the neck, upper body, and hands before and after an assignment. The stretches and tips mentioned in the article can be found in Appendix B.

Stretching can help prevent injuries by loosening and muscles and joints before and after working, in order to try and prevent injuries from occurring. "After standing or sitting for long periods of time, exercises are beneficial in reducing the amount of stress in the body" (Freeman et. al., 2010, p. 4). Without realizing it, sitting or standing in one place can put a lot of stress on the body. It may seem like standing or sitting is not doing very much, but the muscles in the body are always working unless they are in a relaxing position. For example if we keep our hands at our stomach crossed during breaks in the interpreting assignment, certain muscles in the arms are still actively working, even though it may seem like they are relaxing. "After sitting or standing for long periods of time, exercises are beneficial in reducing the amount of stress on the body. One particular exercise, back extension, can be performed in standing or sitting by placing the individual's hands on his or her waist and then lean backwards." (Freeman et. al., 2010, p. 4)

ASL/English Interpreters, in various settings stand or sit for an extended period of

time, while using other muscles in the body to interpret. Stretching the whole body, not just the hands, can help prevent injuries. It is beneficial to stretch the muscles we use the most when interpreting, but in most cases all of the muscles in our body are slightly working all the time. Stretching is a good way to warm-up, cool down, or just give our bodies a break from everyday activity.

Some work places may have a section in their employee handbook about taking care of themselves in order to continue working at that place of employment. "Ergonomics assumes that the work environment can be designed and employees taught techniques that make the work environment safer from physical stresses that can produce musculoskeletal symptoms" (Freeman et. al., 2010, p. 5). Agencies, colleges, and school districts can set this up in employee trainings, or interpreter handbooks that are given out whenever someone is hired.

Woodcock, et. al. (2008) and Freeman et. al. (2010) agree on certain aspects of what they respectively call prevention, or recommendations for decreasing the chance of injuries. Each author has their own perspective on what is beneficial for an individual to do after long periods of standing, sitting or any physical stress that an activity puts on one's body. Overall, the thing they agree most about is that self-care is important, no matter what kind of self-care.

Chapter 3: Discussion

The research in the literature review above explains why incorporating self-care into any everyday schedule is important to preventing injuries. It is also possible that interpreters who incorporate a good self-care technique can experience physical injuries from interpreting.

Self-care is more than just stretching, eating healthy, and exercising. Personally I think self-care can be everyday tasks that get pushed to the side because our lives are so busy. When we push away cleaning our place of residence, grocery shopping, and taking time for ourselves, we think we are helping our self by allowing more time but really we are just allowing more time for the things that cause stress. In the end these things cause more stress and can lead to injury if they are not properly taken care of, because of overuse.

The mental and physical impacts or experiences an interpreter can have from interpreting may look daunting when it is all complied together, but it is important to know risks in order to plan effectively in order to avoid the possible career-altering conclusion.

One important thing to keep in mind, is if symptoms listed above, or any symptoms arise, it is important to not self-diagnose based off of certain symptoms. Certain symptoms can be signs for a few different injuries, each with different treatment plans.

I think it might take a little bit of time to find the right regiment of self-care to use for each person's body. It also might take a little bit of time for each individuals body to enjoy a certain technique for self-care. As stated in the literature review section about mental and physical self-care techniques, doing something once will not create a solution. Like most things it takes time for the body to adjust to stretches, or exercise that will

enhance prevention of injuries.

All of the different techniques and suggestions for self-care including stretching exercise, eating habits etc. will be based on individual preference. Some people may prefer to stretch a certain way while others may not. As I mentioned before the techniques mentioned above were found in several articles, I am not a medical professional and am not saying any of these will work for everyone, but there is a chance they could be helpful in preventing injuries and fatigue. If an individual has a specific medical condition or worries about changing their routine, they should contact a medical professional before making any major changes to their self-care plan.

So why is self-care actually important. Why are the mental and physical impacts an interpreter could experience important to know about before they occur. Knowing about these impacts of interpreting can keep an interpreter aware of how they treat themselves while they are working and throughout everyday life. If they are aware about the things they might experience in the future if they do not take care of themselves they might change the way they treat their bodies. Even doing a little bit of self-care can go along way.

While it is important to include self-care for the interpreters benefit, it will also benefit the consumers interpreters work with on a daily basis. If an interpreter is healthy and well rested, they will most likely produce a more accurate and effective interpretation. If an interpreter is not taking care of himself or herself, and ends up with an injury they might have to accept fewer interpreting hours, causing the Deaf community to have one less interpreter they can request for an event.

Setting up goals can be a good way to start incorporating self-care into a person's

life. If someone sets out to create a plan to improve their self-care without creating small goals for themselves it might not work. Small goals will also help someone build up motivation to include self-care in their daily life. Typically it is not possible to say "I am going to do this big thing everyday for a while and see how it goes." Even with the inclusion of self-care, injuries do happen. Individuals who take care of themselves using self-care while interpreting may experience an injury unrelated to interpreting that may keep them from working for a period of time. If this happens it is important to remember that returning to any kind of work that could reinjure the affected area will not benefit the interpreter.

Chapter 4: Conclusion

As an overview, ASL/English Interpreters are susceptible to mental, emotional, and physical injuries when they are actively involved in the profession. Even though people tend to put off self-care until there is an obvious need such as an injury, it is important to consider these factors before the injury symptoms appear. People tend to not think about things that could impact how their bodies work until there is something to think about. We don't think about the strain interpreting puts on our muscles, until our muscles push back and are hurting in some way or another. If we think about these things before they happen, we can strengthen our bodies, and hopefully prevent or reduce any injury that may occur in the near or distant future.

Due to the possible injuries that ASL/English Interpreters may endure, there are multiple reasons for including self-care in our everyday lives no matter what profession we are a part of. There may seem like reasons to avoid self-care or not enough knowledge about possible injuries, feeling like taking time for self-care means less time working, and "knowing your own body." Self-Care comes in many different forms. Some individuals may need more time doing a specific activity, while others may not.

There are multiple mental/emotional and physical reasons why an ASL/English Interpreter should include self-care into their routine. If an interpreter has not yet had an injury, self-care can help prevent an injury from occurring, or if they have had a previous injury, it may help with the healing process

Mental impacts of ASL/English interpreting include empathy, stress, fatigue, the need for supervision, and how the actual interpreting process impacts the work interpreters

do. The physical impacts of ASL/English interpreting include musculoskeletal injuries, Carpal Tunnel Syndrome, Repetitive Strain Injuries, Movements Causing Strain, Vocal Strain, Nerve impact, and all of the symptoms that may appear due to these various injuries. If incoming and currently working interpreters took time to realize these impacts of the profession, they might take a second look at what they can do to sustain their body and help protect it from these injuries that could cause them to work less in order to heal properly. I hope anyone who reads this paper if they are a student, working interpreter, or someone in another profession will learn as much from this research as I have learned while writing about it.

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Appendix A- Healing Times

Expected Healing Times	
Soft Tissue Injuries	
Soft tissue injuries (muscle, tendon)	3 months
Knee ligament injuries	3 months
Herniated disc - conservative treatment	3-6 months
Fractures	
Complex facial fractures	4-6 months
Upper limb	3-6 months
Hand fractures	3-6 months
Spinal fractures/dislocations	12 months
Femur and hip fractures	6-12 months
Tibial fractures	6-9 months
Other lower limb and foot fractures	3-6 months
Complex and/or complicated fractures	6 months
Fracture dislocations of major joints (including wrist and ankle)	6 months
Infections	
Osteomyelitis	4-8 months

Woodcock et. al., 2008, p. 52

Appendix A-Healing Times Continued

Expected Healing Times	
Injuries to the Nervous System	
Peripheral nerve injuries	3-12 months
Minor head injuries	3 months
Brain injuries with persisting neurological deficit	l year
Spinal cord and cauda equina injuries	l year
POST-SURGICAL HEALING TIMES	
Shoulder arthroscopy	3 months
Most other shoulder operations	3-6 months
Knee arthroscopy	3-6 weeks
Knee arthrotomy	3 months
Knee ligament repair	3-6 months
Ankle ligament repair	3-6 months
Spinal fusion	6-12 months
Spinal stenosis decompression	3-12 months
Nervous System	
Major nerve repair	6-12 months
Minor nerve repair	4-5 months
Carpal tunnel or other nerve release	3 months
Flexor tendon repair or tendon transfer	3-6 months
Extensor tendon repair	3 months
Tendon release	3 months

Adapted from the Workplace Health, Safety and Compensation Commission (WHSCC) of New Brunswick.

Woodcock et. al., 2008, p. 53

Appendix B- Stretches

- Hold arms straight out in front of the body. Rotate the arms so the backs of the hands face each other. Hold for a few seconds. Now rotate your arms so the palms of the hands face up. Repeat 3 times.
- Hold the arms in front of the body and make gentle fists. Point the knuckles toward the floor and hold. Straighten the fingers and point them down. Slowly point the fingers up toward the ceiling and hold. Repeat the steps 3 times.
- While standing or sitting, drop the arms to the side of the body. Gently shake out the arms and hands for several seconds.
- Stand or sit up straight and tuck in the chin. Gently tip the head to the left, return to the center, and then tip the head to the right. Repeat 3 times.
- While standing or sitting up straight, turn the head to the left as if to look over the shoulder. Then, turn the head to the right. Repeat 3 times.
- Slowly raise the shoulders toward the ears. Hold for a few seconds. Slowly allow the shoulders to relax. Repeat 3 times.
- Raise the hands to shoulder level with the elbows bent, palms forward. Bring the arms back, squeezing the shoulder blades together. Hold for a few seconds. (Figure 7) Repeat 3 times. General Consideration for the **sign language interpreter** includes:
- **Sign language interpreters** should attempt to use a less forceful signing style when working with the hands slightly turned in rather than facing the audience.
- Not working for extended lengths of time (greater than 45 minutes to 1 hour) without rest whenever possible. When lengthy interpreting situations are anticipated, working in a team approach is recommended.

(Freeman et. al., 2010, p. 4-5)