

**Remarks by Ronald R. Sticka, Colonel, USAF (Retired)
May 16, 2023, before the Oregon Senate Committee on Veterans,
Emergency Management, Federal and World Affairs**

Topic: PTSD Update

Senators Manning, Thomsen, Armitage, Linthicum, and Patterson;

It is an honor and a privilege to again appear before you and provide an update about the efforts of the Kim Sticka PTSD Music and Arts Foundation to facilitate additional ways to address mental health care for those suffering from PTSD and trauma-based conditions. I last appeared before you via Zoom during the pandemic and you may remember the song, “Homeless Joe”, a blues ballad I wrote and performed. The song is about a veteran with PTSD who finds relief by learning to play guitar. I combined true stories told by 12 different people I interviewed into the lyrics of that song.

Kim’s Foundation is now in its sixth year of activities. For each of the past five years we have held an annual PTSD symposium to help enlighten the public we serve and promote further dialog. Today, I will continue my advocacy through music approach by sharing with you the theme song for our foundation’s Fifth Annual PTSD Symposium held last year entitled, “Neuroplasticity”. Our keynote speaker for that event was Dr. Indre Viskontas, a prominent neuroscientist from San Francisco, who is also a skilled operatic soprano. She teaches psychology and does brain research at the University of San Francisco. She also teaches and performs at the San Francisco Conservatory of Music. She spoke at our symposium on the topic entitled, “Neuroplasticity and the Power of Music for Better Mental Health”. She is the director of the Creative Brain Center and quite engaged with the National Institutes of Health and the National Center for PTSD in Washington, D.C.

The symposium commenced at the John G. Shedd Institute for the Arts in Eugene with the Lane Fire Brigade Pipes and Drums first playing the patriotic song, “America”, followed by “Amazing Grace” to honor those who have fallen in the line of duty. There is power in music to induce emotional response on such occasions. The goosebumps and tears such music can bring about serves as a mechanism facilitating release from stress in a manner good for people suffering from PTSD and trauma. This is believed to be one sign of “freeze discharge” reactions which may actually reboot the workings of the brain for PTSD victims. During the pandemic, funerals without music were simply not the same. Something important was missing. After the bagpipes died away, Brian Breedlove and I did a live performance of the song I am about to play. We announced our dedication of the performance to our Lane County police, first responders and veterans.

I will first walk you through and clarify the intended meaning of some of what I wrote:

The song begins with, “Neuroplasticity just might relieve your stress”

Neuroplasticity is the body’s ability to “rewire” neural connections of the brain and throughout the body for repair, greater efficiency and strength. Neural networks may be modified to bypass damaged areas. The body has many billions of neurons. New neurons may be produced, but this ability declines as we grow older. It is proven this can be managed through musical techniques and focused repetition. I’m sure you all remember the attempted assassination of Congresswoman Gabby Giffords in Arizona. She was shot point-blank and her speech center in the left lobe of her brain was destroyed. Gabby Giffords regained her power of speech through her own determination, hard work, and coaching by music therapists to transfer the ability to speak to the right lobe through a

process of learning to sing the words and using music memory which remained intact. Music skills transcend both lobes of the brain and involve the cognitive side as well as the creative and subliminal side. It required a lot of discipline and motivation on her part; but after two years of steady effort she was able to deliver an important speech.

“And mental health problems We the People should address”

As a nation it is our duty and it is in our best interests to establish better ways to remedy and resolve mental health challenges. Many millions of people are impacted by mental health issues. Action is urgently needed. Let’s not delay. These problems don’t just go away.

“Another sleepless night on the verge of insane”

Regular cycles of deep REM sleep are vital to maintaining good mental health. It is a renewal process believed to be a key part of the way our brains process and store memories. Diet and nutrition are also important to mental health. We need to develop and maintain good habits which alleviate stress before retiring. Music before bed may be an answer for some.

“Performing with others may bring some relief”

I prefer a group approach for teaching music and other art forms. Students learn to perform with others. They learn to follow established beats and rhythm as part of group behavioral requirements. This method emphasizes teamwork toward common goals and unity of purpose. It requires timing and focus, which are elements of mindfulness techniques. For the past five years I have used this approach at the Jasper Mountain SAFE Center near Springfield with substantial success. Students earn ukuleles by

performing and demonstrating proficiency. They learn music skills and thereby develop higher levels of self-esteem and confidence through practice and achievement. They prove to themselves they can do what they may initially have thought was not possible. And they can even be motivated to create their own music and share it with others. My next class will commence next September. They average around 10 students per class.

“We need each other to better control emotions which drive us when out on patrol”

I am particularly concerned about job stresses on police, first responders, and veterans. My use of the phrase “out on patrol” embraces those brave souls who put themselves in harm’s way. Music and arts can provide suitable ways for those who serve to relieve stress in pleasurable ways while off duty. This song is dedicated to them in appreciation of their devotion to requirements they maintain safe places and aid victims of traumatic events and crimes.

“Body and mind should work out each day. May finding the arts be the way? By making real effort our brain-strength improves. Nerves get to firing through musical moves.”

This refrain points out the importance of neuroplasticity and holistic approaches which emphasize the needs for healthy minds and bodies. Music and arts can be stimulative of neuroplastic responses. Perhaps we should implement a new category of mental health coaches to supplement the work being done by athletic coaches and teachers. I strongly endorse the development of skilled peer support specialists, and a category of skilled workers specifically for music and arts training.

Let’s now review the music video of “Neuroplasticity” [Play]

PTSD, Post-traumatic Stress Disorder, remains the designation first established in 1980 for use in the Diagnostic and Statistical Manual, third edition, (DSM-III), to standardize the symptoms attendant to PTSD for statistical consistency and reporting purposes. Substantial revisions were made in DSM-IV and DSM-5, but PTSD remains the correct diagnostic term according to the criteria established by both the American Psychiatric Association and the World Health Organization.

The consensus among mental health experts is that PTSD is a disorder of the mind. This begs the question, “What is the mind?” I regard our minds as the essence of our cognitive selves. “I think, therefore, I am”, said Rene Descartes. In truth, that which is the mind largely continues to elude scientists. Does the mind physically exist within our human structure or might it be pure energy. Is the mind brain-centered? Many have assumed so. Memory processing and storage seems to be a function of brain activity. However, recent credible studies seem to indicate one’s mind is interactive with all bodily cells and that high levels of energy fields associated with thought processes are strongest in the region of the heart; about five times stronger than energy fields in the brain. Our neural synapses do a lot of firing with energy releases we can measure. These synapses can be honed through neuroplastic initiatives.

How effective are current methods of mental health treatment for PTSD. It’s hard to us to say. It’s more important to know how the person being treated responds. While identical twins are clones biologically, their life experiences and memories make even them unique. How each person is to be treated will depend on individual needs and preferences. Early trauma intervention relies primarily on pharmaceuticals and various forms of “talk therapy”. Many veterans with whom I have spoken dislike clinical settings for therapy and would rather not take what they describe as “buckets of pills” with undesired side effects. Some report that the drugs make

them psychotic. Substance addictions from treatments have been reported which are then listed as an additional disorder. Most diagnoses of PTSD involve comorbidity with other related or unrelated conditions which must also be treated. All of this is quite complicated. I believe each person being treated needs to be a key team player in their own treatment and cooperate periodically with honest assessments of how they are feeling and reacting to treatment.

Desensitization should not be the final step in the recovery process. Further efforts should be made to restore minds impacted by PTSD to a better and more normal form of existence. The goal should be to make the treatment as complete as possible. I regard the stimulation and hormonal effects resulting from music and arts to be an effective form of “resensitization” for those with mental health disorders. At least for some people, perhaps this should be the additional and final phase of the recovery process. It will be a long-term process, so those who participate in such programs will need continued motivation and self-discipline to cross the finish line.

The best solution is to either prevent trauma before it occurs or prepare one’s mind to deal with traumatic events when they occur. Minds need to be trained to respond to such eventualities. This is a role for planners and educators. Simulated emergency responses may help people get attuned to how they should react. Fight or flight decisions are normal. Freezing without decision leads to PTSD unless a way is found to reverse the “freeze” mode.

I have provided each of you with the ASK Declaration prepared by me to shed light on the importance of music and the arts in our schools. It speaks for itself, and I hope you agree with the wisdom it presents. Students I encounter and reports from teachers indicate that many students who drop out of school, particularly those in lower socio-economic status, would continue with school if they were

offered classes in music and arts. Art and music activities also offer alternatives to gang behavior and enticements. Funding priorities should proportionate to the funding of STEM subjects and athletics. If music and art programs will keep kids in school, consider the amounts saved by society if they become productive citizens.

Likewise, we need greater support for the training of peer support specialists and other mental health workers so that there is a greater ratio of worker to those being helped. Peer supporters have shared backgrounds and experiences, so they will have credibility and an understanding of how best to present themselves to achieve success in their mission. Peers more readily listen to peers they trust.

In summary, let's prioritize mental healthcare needs in the following ways:

- 1. Prevent traumatic situations to the extent humanly possible.**
- 2. Give people the training and tools which will assist decision-making in traumatic and threatening situations. Some events can be predicted, such as natural disasters. Train them to respond in preplanned ways. Have established locations they can go to in case of emergency.**
- 3. Do what keeps the brain and cognitive mind healthy and alert.**
- 4. Quickly desensitize a victim of trauma through quick action and the use of pharmacology to the extent medically indicated for emergency measures. Develop a plan in which the patient will be a team player.**
- 5. Following initial measures, evaluate the results and begin a team process of resensitization to rewire the brain in desired ways through targetted and planned neuroplasticity methods.**

In closing, I want to mention that between the ages of six and eight years of age, the brain does a massive dump of neurons associated with music and art unless those areas are by then being stimulated with music, singing, dancing and art forms. My mother used to sing lullabies during my earliest years. I remember I was learning and memorizing songs by age three. She started me with piano lessons at age five. I moved on to trombone in the fourth grade where they actually then had a school band. Long term music performance and acquisition of skills increases brain capacity and such students generally do better in school. It may improve athletic skills, as well. I am thankful for my mother's love and her gift of music.

I invite your questions for further discussion.