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The Major Occupational Hazard of Post Traumatic Recall (PTSD)

- part 1

INTRODUCTION:

High risk professions like law enforcement, military service, healthcare and emergency response are known to have exposure to some of the most extreme levels of trauma - both physically and psychologically. They range in effects from manageable symptoms to crippling disorders. Over time, most people overcome disturbing or traumatic experiences and continue to work and live their lives. But others who get affected by traumatic experiences may trigger a reaction that can last for months or even years. This is called Post-traumatic Stress Disorder, or PTSD. Proportionately, studies have shown a lower percentage of retirees from such challenging careers acquire PTSD (from 15-20%) while an estimated 30-40% who suffer from PTSD associated symptoms go undetected or do not register as full cases. A larger percentage 'on the job' might be able to maintain the expected work standards throughout their career and even make it to retirement without visible signs. But "POST traumatic recall" leading to fully blown PTSD occurs when repeated exposure to trauma compounds on the tolerance capacity that eventually, one's coping ability collapses. The individual may feel stages of grief, depression, anxiety, guilt or anger from uncontrollable issues like recurring flashbacks and nightmares. [1]

REVIEW OF POST TRAUMATIC RECALL (A field report by: Jessica Glynn, CSW)

PTSD can occur in all different extremes with at-risk professionals (like cops, responders and veterans). The trauma that they experience are above the ordinary that they could cause extreme flashbacks, anxiety and depression—heavily affecting their quality of life. The average civilian is also prone to this disorder starting with MICRO-TRAUMAS that can happen to everybody throughout any point in their lifetime. Usually stemmed from childhood issues, micro-traumas actually shape the way an individual reacts to other people. As an example, child bullying may lead to developing a protective or defensive personality disorder. Anytime they feel disrespected or embarrassed by others, feelings of extreme uncontrollable anger may arise without knowing the source of the hurt or why they're acting in that way. This dilemma often causes problems in relationships.

Similarly, a first responder who experiences extreme traumas like horrendous disasters may stick with them in a much harsher way that could lead to flashbacks that are hallucinatory. If gone unchecked or untreated, these symptoms (including auditory hallucinations) can get increasingly more intense and expand to other symptoms that can affect their daily functions. A common way that anxiety can debilitate a sufferer is from recurrent lack of sleep disrupted by bad dreams triggered by the traumatic event.

Enduring trauma is different and unique for everyone. Some cases are event-specific (having intense auditory impact or visual intensity of a terrifying event) while other cases are contingent upon the tolerance of an individual. There are people who are more emotionally expressive than others- and that might help with if they talk about the trauma that they've been through. A latent emotional disorder like PTSD symptoms can come out over time just like anything that is suppressed or repressed. It could take some time for somebody who came back from combat or a first responder who has been in a traumatic event to show signs of disturbance. They could be holding it in and repeatedly thinking about it privately (or ruminating over it) allowing the disturbing memories to get more intense by the day. This can often be a coping mechanism- protecting themselves from dark or negative feelings for a while, but eventually it builds up and can become symptomatic like flashbacks and anxiety, then leading to an eventual explosion. Meanwhile, some people just have flashbacks right after the experience because of the way that everybody's brain processes differently. Others obsess over thoughts that keep popping up over and over again. It really just depends on the person.

SIGNS AND SYMPTOMS**

According to the National Institute of mental Health, not every traumatized person develops ongoing (chronic) or even short-term (acute) PTSD and not everyone with PTSD has been through a dangerous event. The course of the illness varies. Some people recover within 6 months, while others have symptoms that last much longer. In some people, the condition becomes chronic.

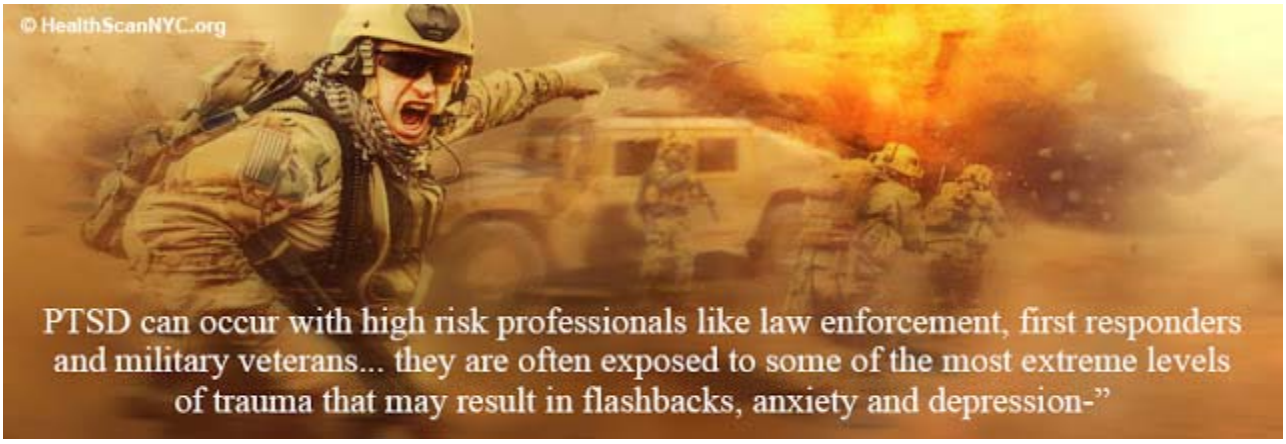
To be diagnosed with PTSD, an adult must have all of the following for at least 1 month:

- At least one re-experiencing symptom
- At least one avoidance symptom
- At least two arousal and reactivity symptoms
- At least two cognition and mood symptoms

Avoidance symptoms include:

- Staying away from places, events, or objects that are reminders of the traumatic experience
- Avoiding thoughts or feelings related to the traumatic event
- Things that remind a person of the traumatic event can trigger avoidance symptoms. These symptoms may cause a person to change his or her personal routine. For example, after a bad car accident, a person who usually drives may avoid driving or riding in a car.

From The National Institute of Mental Health [3]



TRANSCRANIAL NEURO-IMAGING TO SCAN STRESS RELATED DISORDERS

By Dr. Robert L. Bard

Emotional traumas and stress influencers are scientifically aligned with anxiety, depression, behavioral disorders, drug/alcohol abuse and a wide list of physiological health issues. These symptoms are typically diagnosed by mental health professionals through observational science and behavioral analysis. But within the past 15 years, global advancements in transcranial imaging pioneered the ability to detect trauma-related issues in the brain through neurological imaging. Now, neurological stress can be identified clinically by monitoring chronic imbalance and changes in the neurochemical structure (or circuitry). The shift in memory performance - specifically the hippocampus and the medial prefrontal cortex is one indicator of this imbalance whereby a stressful event can show images with signs of neuronal dysfunction.

Neuro-imaging measures brain thought activity which has known chemical tissue changes by observing the alterations in capillary blood vessels in the retina located in close proximity to the main emotional center of the anterior brain. Functional MRI (fMRI) is currently used to show brain chemical changes with cognitive commands such as "death vs freedom." Most recognizable patterns with suicide occur in the anterior cingulate cortex of the brain which lies directly behind the globe and is vascularized by orbital branches of the anterior cerebral artery. Functional near infrared imaging (fNIR) devices show changes in brain oxygenation linked to suicide.

Another imaging innovation is the TRANSCRANIAL DOPPLER (TCD) - a type of sonogram that is a non-invasive, non-ionizing, inexpensive, portable and safe technique that uses a pulsed Doppler transducer for assessment of the blood flow in the anterior cerebral arterial circulation. This technology has been used to evaluate intracranial steno-occlusive disease, subarachnoid hemorrhage, and extracranial diseases (including carotid artery disease and subclavian steal syndrome), detection of microembolic signals and acute strokes. [5] The Transcranial Doppler has been used to examine the mean speed of blood circulation of patients to validate and monitor treatment efficacy by tracking cranial blood vessels and vertebrobasilar flow vasospasm. [8]

Another device used by imaging specialists to detect mental distress is through an EYE SONOGRAM or real-time Sonofluoroscopy of the orbital soft tissues of the eyes. This process is performed in multiple scan planes with varying transducer configurations and frequencies. Power and color Doppler use angle 0 degrees and PRF at 0.9 at the optic nerve head. 3D imaging of optic nerve and carotid, central retinal arteries and superficial posterior ciliary arteries performed in erect position before & after verbal communication and orbital muscle tissue contractions may be observed as a precursor to visual changes in facial expression. Retinal arterial directional flow is also measured with peak systolic and diastolic values. Bulging of the optic nerve head is checked as increased intracranial pressure may be demonstrable in this condition. Other innovations such as the TRANSORBITAL DOPPLER, 3D/4D VESSEL DENSITY HISTOGRAM and the RETINAL OCT (optical coherence tomography) are also being

explored in the pursuit of studying brain performance through the eyes. An expanded review on these solutions will be available in part 2 of this report.

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ROBERT L. BARD, MD, PC, DABR, FASLMS - Advanced Cancer Imaging Specialist. Having paved the way for the study of various cancers both clinically and academically, Dr. Robert Bard co-founded the 9/11 CancerScan program to bring additional diagnostic support to all first responders from Ground Zero. His main practice in midtown, NYC (Bard Diagnostic Imaging- www.CancerScan.com) uses the latest in digital Imaging technology has been also used to help guide biopsies and in many cases, even replicate much of the same reports of a clinical invasive biopsy. Imaging solutions such as high-powered Sonograms, Spectral Doppler, sonofluoroscopy, 3D/4D Image Reconstruction and the Spectral Doppler are safe, noninvasive, and does not use ionizing radiation. It is used as a complement to find anomalies and help diagnose the causes of pain, swelling and infection in the body's internal organs while allowing the diagnostician the ability to zoom and 'travel' deep into the body for maximum exploration.

JESSICA A. GLYNN, LMSW, CPC, CEC – First Responders' Mental Health Program. As a therapist and coach, a lot of my work with clients is helping to manage symptoms of anxiety and panic- that which manifests in physical, often frightening and alarming ways. We can experience things like racing heartbeat, shortness of breath, numbness in arms and legs which can all make us feel like we are out control of our bodies and our surrounding world. When we have experienced a traumatic event in our lives, these feelings can be even more severe and heightened. The trauma and residually related fear is one that is very close to my heart and a reason I can provide empathy and understanding to clients that have been affected by the horrific day. When we work to process physical emotions that arise from trauma, the hope is that one day we can be less affected by it and live more presently to enjoy life's fulfilling moments. I work with clients to slowly pull apart the physical emotions we experience from the thoughts that we are having and process them in a more self-aware and grounded way., Visit her website- www.jagtheracoach.com

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