

Neurocounseling: Bridging Brain and Behavior

Hypervigilance and the brain

By Andrew McGinn & Jason Campbell

Note: This article on the personal and societal repercussions of hypervigilance may be upsetting to some readers. It covers sensitive topics such as case reviews of police brutality and fatal shootings. It was written before a Minneapolis police officer used lethal force in the arrest of George Floyd and was charged with murder and manslaughter several days after video of the incident was broadcast. Three other officers on the scene were subsequently charged with aiding and abetting murder.

The statistics are nothing short of a gut punch. As reported by *Forbes*, more Americans were killed on the streets of Chicago between 2001 and 2016 than were killed in the wars in Afghanistan and Iraq combined. The psychological effects of combat are well documented. Even the neurological effects of combat have entered cultural consciousness in the 19 years since the United States began waging its global war on terror, with traumatic brain injury (TBI) considered the war's signature wound.

But Cook County, Illinois, isn't Anbar province, and Chicago isn't Kandahar. So, what does it look like when America becomes the war zone? It can create a citizenry that perceives threats — real or imagined — around every corner, not unlike the combat veteran whose mind and body are on constant alert for the next ambush or roadside bomb, even in the relative safety of a mall parking lot.

This dysfunctional state is known as *hypervigilance*, and its growing prevalence among American civilians living with adverse psychosocial outcomes has only recently started to be examined, according to a 2019 report

from lead writer Nichole A. Smith of the Pritzker School of Medicine at the University of Chicago.

But this isn't just about Chicago. It's about anyone at risk of being gunned down on a Saturday morning at their local Walmart with a semi-automatic rifle purchased at a sporting goods store. Increasingly, that's all of us. Hypervigilance may come to best symbolize the United States at the start of the third decade of the 21st century: one nation, on edge.

"Is it just me, or is it getting crazier out there?" actor Joaquin Phoenix asks in *Joker*, the 2019 movie that took DC Comics' Day-Glo "clown prince of crime" and recast him as a socially isolated, hypervigilant man who eventually exceeds his breaking point. Despite its R rating, the movie has grossed more than \$1 billion globally at the box office. Critics and audiences alike hailed its allegorical timeliness. It has been suggested that the loneliest people (those with few social connections) are more likely to view human faces as threatening.

Hypervigilance has potentially serious ramifications for society, not only as an emerging mental health issue but as a public safety concern because people with hypervigilance may feel the need to carry weapons to protect themselves from threats that may not even be real. Writing in the journal *Health Affairs*, Smith and colleagues quantified a connection between hypervigilance and exposure to community violence or police brutality, two routine parts of life for racial and ethnic minorities, particularly in urban America. It is imperative that we, as counselors, look for ways to bring America back from the brink.

An exaggerated alert response

Hypervigilance has been described as a state in which the brain's neural alerting response is exaggerated and persistent. That means the amygdala — a nucleus in the limbic area of the temporal lobe responsible for generating a person's response to fear — prepares a person to respond to imagined threat even when there is no actual danger. A 2019 study at the City University of New York showed greater connectivity, even at rest, between the amygdala and the ventral anterior cingulate cortex in women exposed to trauma.

Physically, this activation of the fear system manifests itself as hyperarousal. A person with hypervigilance will be startled easily. Their heart rate will be faster. Hypervigilance is associated with higher blood pressure, which may in turn cause heart disease. It is also suggested that chronic hypervigilance may lead to memory impairment and anxiety disorders.

Tragically, this persistent fear of violence may beget actual violence, especially if a person in a state of hypervigilance is armed. This appears to be of specific concern with regard to community-police relations in many cities, where nothing good is likely to result from hypervigilance on both sides.

Hypervigilance in policing

According to a 2019 report from the National Academy of Sciences, police in the United States kill "far more people than do police in other advanced industrial democracies." The report also highlighted the stark reality for African American men, who have a 1 in 1,000 chance of being killed by police in their lifetime, making them significantly more likely than Euro-

American men to die at the hands of those sworn to protect.

Oscar Grant, 22, an unarmed African American man, was face down on a train platform in Oakland, California, in the early hours of Jan. 1, 2009, when a Euro-American police officer standing over him fired a gun into his back. The officer, Johannes Mehserle, later insisted he thought he had shot Grant with his Taser. Ron Martinelli, a criminal justice expert and forensic criminologist, suggested that Mehserle — who was sentenced to two years in prison for the shooting death of Grant — was afflicted with hypervigilance and that there were a growing number of “Mehserle-like officers” in the nation’s police ranks because of insufficient training that puts officers at risk of acting irrationally.

In the *Health Affairs* article, Smith and colleagues recorded a 9.8% increase in hypervigilance due to police altercations among Chicago adults surveyed in 2018. If a police stop was considered traumatic, that number jumped to 20%. Their study also found a 5.5% increase in hypervigilance because of exposure to community violence.

Direct exposure to trauma isn’t the only cause of hypervigilance, as evidenced by a qualitative research study of 62 African American men who read about or viewed a video of the fatal shooting of Stephon Clark, 22, an unarmed African American man, in his grandmother’s backyard by police in Sacramento, California, in 2018. The overwhelming majority (95%) reported symptoms, including hypervigilance, related to posttraumatic stress disorder (PTSD). This suggests that secondary trauma can occur when reading about or viewing traumatic events toward people of ethnic minority backgrounds, according to the study led by Allen Lipscomb of California State University, Northridge. Lipscomb’s research results were published in the *Journal of Sociology and Social Work* under the unforgettable title, “Black Male Hunting! A Phenomenological Study Exploring the Secondary Impact of Police Induced Trauma on the Black

Man’s Psyche in the United States.” Of the study’s participants, 72% reported worrying daily about being killed by police.

A call to action

The United States has long prided itself on being the land of freedom and opportunity. Ignoring the war zone in its own backyard causes one to question this promise, however. Unless government officials, communities, families and individuals stop to pay attention and help to clean up our own war zone, then racism and brutality will persist for years to come. This means that more people will be disposed to hypervigilance and more people will be killed needlessly when another measure could have been implemented. It is no coincidence that the Black Lives Matter movement has come center stage during recent history because many people are still asking America, “Do black lives really matter? If so, where is the evidence?”

Writing in the *American Journal of Public Health*, Sirry Alang and colleagues asserted in 2018 that experiencing or witnessing police brutality, hearing stories of friends who have experienced brutality and having to worry about becoming a victim were all stressors. We live in a world in which news no longer circulates a few times a day via traditional sources. For the millions of people who spend countless hours on social media, being exposed electronically, 24/7, to the stories mentioned above may produce hypervigilance.

This extends beyond those who are subjugated to violence to include those who feel cheated and lied to by politicians promising a better economic future. It would be irresponsible to forget other citizens who have been held voiceless in different ways. These people are our sisters and brothers. They live in rural areas with a lack of job opportunities and economic resources, they live on run-down reservations, and they live in a constant state of fright, terrified of the possibility of being deported. Hypervigilance is universal.

Implications for counselors

Counselors in all settings are uniquely qualified perhaps to help bring society back from the brink, whether by using individual counseling techniques to assist clients with dispelling irrational thoughts, or by exploring the potential of neurofeedback, which has demonstrated efficacy in reducing anxiety among veterans with PTSD.

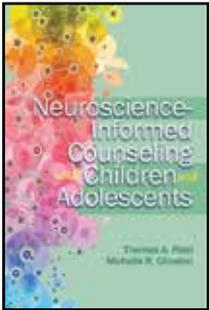
Acceptance and commitment therapy (ACT) has been successfully used to treat trauma by improving coping and has been coupled with multicultural training to address prejudice and stigma, according to Phillip Graham and colleagues, writing in the journal *Clinical Child and Family Psychology Review*. Training in ACT and breathing techniques can help individuals “in the moment” when they are faced with police interaction. The purpose behind ACT is to live a life full of meaning while experiencing the feelings of the trauma rather than avoiding them. When one comes into contact with police, the thoughts that come to mind that might trigger the fright, flight or fight response are just that — thoughts — not the embodiment of the person. It is crucial for people to remain as calm as possible, and using breathing techniques is a way to elicit a calm physiological response.

At the school level, one potential way to reduce youth symptoms of distress related to exposure to violence is the cognitive behavioral intervention for trauma in schools. This approach is a 10-session, school-based intervention that has demonstrated efficacy. It uses noninstructional times, such as home room or study hall, to teach cognitive behavioral skills in a small group format to address symptoms of PTSD and anxiety. Through relaxation techniques, art therapy, group therapy, cognitive processing, exposure therapy and other cognitive behavioral techniques, students can start the healing process. It is sad that programs such as this one need to be implemented, but for many students, exposure to police brutality (whether direct or indirect) and school shootings are real concerns.

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Any understanding of African American men is predicated on an understanding of African American history and culture. Counselors must be competent in their knowledge of this background to help these clients manage their hypervigilance. Even more important is the imperative to build a relationship with these clients. Being heard, respected and understood are human longings that members of the African American community sincerely want. Too often, these individuals are made to feel that their lives don't matter to the government because of the disparity of justice dished out by police in the United States. Simple techniques such as being a listening presence are empowering to young African American men who long to be respected in the world.

Because of the neural response in the brains of people with hypervigilance, we also suggest neurofeedback. An increase or excess of beta brain waves in F4 (Brodmann area 8 in the frontal cortex) has been associated with hypervigilance, according to Theodore Chapin and Lori Russell-Chapin, authors of the 2014 book *Neurotherapy and Neurofeedback: Brain-Based Treatment for Psychological and Behavioral Problems*. They cite two studies involving Vietnam veterans with combat-related PTSD in which alpha theta neurofeedback resulted in success rates of 80% in the reduction of symptoms such as anxiety and panic.

Counselors should be engaged in efforts toward building a more just society, particularly for African Americans. Building relationships — in the form of community-building activities between law enforcement and residents — could do wonders for African Americans who are terrified of police involvement. Yes, African Americans do seek and deserve justice; however, African Americans also have a need to be protected in the same manner as other U.S. citizens, and that can start with building trusting relationships.

Counseling psychologists Taasogle Daryl Rowe and Cheryl Tawede Grills have developed the concept of “emotional emancipation circles.”

These are safe, flexible gatherings in which African Americans can share stories, deepen understanding of the impact of historical forces, and learn essential emotional wellness skills to help improve lives. This is a great way to get the community talking instead of responding in a negative manner. Emotional emancipation gives the community a chance to express its anger and fear — of which America has no shortage these days.

Beyond building relationships with the African American community, it is imperative that police are trained thoroughly. Too many times, police officers are more hypervigilant than the individuals they encounter. This almost never ends well for the person being pursued by the officer or officers. Involving mental health professionals in high-stress or uncomfortable interactions with the community would be a great way to help save lives. Mental health professionals can help create a common ground and facilitate workable conversations in anxiety-producing situations.

The unfortunate reality is that the police and the African American community have a long history of disagreements, traumatic experiences and unnecessary killings in their interactions. That reality is likely on the mind of every police officer and member of the African American community in the United States. Through purposeful implementation of relationship building, the adequate training of police officers and the involvement of mental health professionals, things can change for the better. ❖

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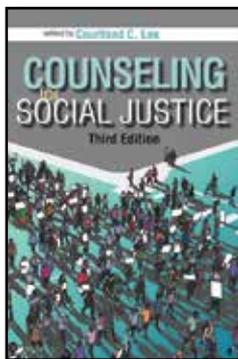
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