

The Applicability of Understanding Hypervigilance in Law Enforcement

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Abstract

Hypervigilance is a condition characterized by a state of heightened awareness in the absence of a threat. Hypervigilance can occur for many reasons, ranging from stressful events or scenarios, to training, to personality. Because of the nature of law enforcement, hypervigilance is an issue that affects law enforcement officers as well as the people with whom they interact on a regular basis. It is important to gain a full understanding of hypervigilance and how it affects decision making, interactions, and quality of life, which has its own effects. By understanding these issues, law enforcement officers can overcome the issues associated with hypervigilance and use it to their advantage.

The Applicability of Understanding Hypervigilance in Law Enforcement

In 2019, at least 56,034 law enforcement officers were assaulted in the line of duty in some way (Federal Bureau of Investigation [FBI], 2020a). This number is out of a total of 475,848 officers serving at the federal, state, city, county, university and college, and tribal levels of law enforcement that were collected as data for the Federal Bureau of Investigation's Law Enforcement Officers Killed & Assaulted (LEOKA) portion of the 2019 Uniform Crime Report (UCR). This means that 11.8%, or just over one out of 10 officers, were assaulted in the year 2019 alone. Of the officers who were assaulted, almost one-thirds (30.7%) sustained some form of injury. The scope of the duties which the officers were performing at the time vary, but generally involved a disturbance call (30.4% of cases), other kind of arrest (17.1%), or the handing of prisoners (12.8%). The majority of the officers assaulted were assigned to a one-officer vehicle (62.1%), with the second most common assignment being a two-officer vehicle (17.3%). Additionally, 48 law enforcement officers were killed in the line of duty in 2019 (FBI, 2020b). Fifteen of these deaths were the result of investigative or enforcement duties, including six traffic stops. Five of the officers who were killed were victims of what appeared to be unprovoked attacks. Thirty of these officers were assigned to a patrol vehicle at the time they were killed. Seventeen officers were by themselves, and 26 were being assisted by other officers at the time of their death. Forty-four of these officers were killed by firearms (FBI, 2020b).

When looking at these numbers, law enforcement officers would want to develop a heightened sense of awareness because of their job. Statistically, most officers would know at least one officer who was assaulted in a single year, although this would vary depending on the department or the assignment of the officer. Some of the specific situations themselves can also be concerning: unprovoked murders, a common disturbance call, or being unassisted out on

patrol or in a gunfight. These experiences, or even hearing of such experiences, can lead to law enforcement officers becoming hypervigilant (Friese, 2020).

Hypervigilance is an important issue for law enforcement officers to understand. This condition is something that affects both law enforcement officers and the people with whom they interact, both victims and suspects. These victims and suspects may become hypervigilant because they are victims of criminal activity or victims of aggressive policing behavior. The importance of this issue has become apparent in recent events. The summer of 2020 displayed the divide on both sides of this issue (Reuters, 2020), with some people feeling threatened by the police when they had no reason to be and police officers seeing and responding to aggressive and violent protest against them, making them less likely to trust the community.

By understanding hypervigilance, its causes, and its effects, people working in the field of law enforcement can more effectively interact with each other and others whom they frequently encounter on the job. This deeper understanding can also allow them overcome the challenges that a hypervigilant mind presents to law enforcement officers and allow them to use it to grow as individuals and as a team.

What is Hypervigilance?

Hypervigilance can be simply defined as alertness or awareness in the absence of a threat (Schomberg et al., 2016; Smith et al., 2019). Junger (2018) noted that the use of the word by law enforcement is quite different than academic usage of the term “hypervigilance”. Whereas law enforcement training sometimes “describes hypervigilance as a desired state of increased awareness”, academic definitions place hypervigilance as a “state of panic resulting in hasty decision making that can end with regrettable outcomes” (p. xvi). However, similarities between these two definitions are found in the traits of “acute stress, fear, anxiety, and decision making”

(p. 3). This thesis will focus mostly on the academic definition and view of hypervigilance and applying this definition to law enforcement.

From an academic standpoint, hypervigilance is often dealt with as a symptom of another condition, typically Posttraumatic Stress Disorder (PTSD) (American Psychological Association [APA], 2013; Hafstad et al., 2014; McNalley et al., 2015; Haravuori et al., 2016; De Stefano et al., 2018; World Health Organization [WHO], 2019) or a Social Anxiety Disorder (SAD) (Wessing et al., 2017; McTeague et al., 2018; Wermes et al., 2018). However, other causes, such as direct and secondhand traumatic experiences, have been found (Wusik & Jones, 2014; Bugge et al., 2019). The difference between the distinction of hypervigilance being its own condition and a symptom of a larger condition is relevant to understanding and treating it. If there are underlying conditions, they must be treated as the primary problem. The focus should be on the core causes, not the symptoms. If there are no significant underlying causes, hypervigilance is still an important aspect of a person's life that can prevent challenges if not dealt with properly.

Hypervigilance can be identified in an individual through a variety of means. Not only are external actions indicators, but hypervigilance also can be measured by biomarkers. Hypervigilance is most clearly expressed through certain behaviors (Wusik & Jones, 2015; Tung et al., 2018; Smith Lee & Robinson, 2019), but the effect it has on a person's body chemistry is also an important indicator (Yoon and Weierich, 2016; Kleshchova et al., 2019).

As a Symptom

Hypervigilance is often attributed as a symptom of another condition or disorder. While this is not the only cause, it is significant enough to be considered on its own. Often,

hypervigilance is associated with another disorder, such as Posttraumatic Stress Disorder (PTSD), anxiety disorders, or phobias.

Posttraumatic Stress Disorder

Both the American Psychological Association's (APA) fifth edition of *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) and the World Health Organization's (WHO) eleventh edition of *International Statistical Classification of Diseases and Related Health Problems* (ICD-11) list hypervigilance as a symptom of PTSD. The DSM-5 diagnoses PTSD as beginning with an event or repeated events of exposure to "death, serious injury, or sexual violence" (APA, 2013, para. 27). Following this exposure, if a patient has any combination of a variety of symptoms, including hypervigilance, for more than one month, then they might be considered to have PTSD. The ICD-11's diagnosis require three conditions to be met: "re-experiencing the traumatic event or events", "avoidance of thoughts and memories of the event or events", and "persistent perceptions of heightened current threat, for example as indicated by hypervigilance" (WHO, 2019, para 1). These diagnoses, however, do not define exactly what they mean by hypervigilance beyond a state of hyperarousal or "marked alterations in arousal and reactivity" (APA, 2013, para. 27), of which hypervigilance is only one example of several possibilities of manifestations.

Studies have found that hypervigilance is one of the most prevalent symptoms of PTSD. When measuring PTSD symptoms in healthcare providers following the November 2015 terrorist bombings in Paris, De Stefano et al. (2018), discovered that the most common PTSD symptom was hypervigilance, with 57% of respondents reporting this symptom. However, only 12% of the respondents were "screened positive for probable PTSD" (p. 279) one month after the terrorist attacks took place. Similarly, McNalley et al. (2015) studied PTSD symptoms in

survivors of the Wenchuan earthquake and also found hypervigilance as the strongest symptom. This study analyzed connections of PTSD symptoms and found hypervigilance to have “the highest strength of any symptom” (p. 843) and central to PTSD. Hafstad et al. (2014) also found hypervigilance to be a significant symptom in survivors of a terrorist shooting on Utøya Island in Norway. On a scale of 0-4 determining how a condition affected a participant, 325 participants reported an average of 2.16 for hypervigilance, making it the third highest of all symptoms and third highest of hyperarousal symptoms.

Other Anxiety Disorders

Hypervigilance is also recognized as a trait in other anxiety disorders. One such disorder is Social Anxiety Disorder (SAD). Individuals with SAD pay significant attention to threatening social cues, more so than most people (Wermes et al., 2018). A study by Wermes et al. (2018) showed that, overall, individuals with social anxiety did not typically exhibit traits of hypervigilance under normal conditions, but “participants with SAD – as compared to healthy controls – display signs of hypervigilance under conditions of threat” (p. 744). While the participants did not live in a constant state of hyperawareness, they were more anxious when threats appeared. This agrees with the conclusion of McTeague et al. (2018) that “rather than initial hypervigilance or facilitation to aversive facial expressions and consequent defensive avoidance, social anxiety appears to confer a sustained bias for hypervigilance or avoidance” (p. 626). While people with social anxiety are not constantly searching for threats, they will be more likely to be turned to a hypervigilant state than other people if they perceive a threat. This initial hypervigilant state is often shifted to a state of avoidance (Wessing et al., 2017; McTeague et al., 2018). The more severe social anxiety is in an individual, the more sustained the hypervigilant state will typically be. However, in the most extreme cases, patients focus on

avoidance instead of hypervigilance (McTeague et al., 2018). Wessing et al. (2017) found that this hypervigilant-avoidance pattern is not a result of endured anxiety, as it is present in both school-aged patients as well as adults; it is present no matter how long someone has had severe social anxiety.

Ehrlich et al. (2015) studied patients who were high in Rejection Sensitivity (RS). People with RS anxiously await and expect possible rejection from the people around them, and they usually develop this condition after a “history of rejection in close relationship” (p. 7), particularly rejection by caregivers. Ehrlich et al. (2015) tested the reactions of people who were affected by RS to images of faces with different facial expressions, some neutral (looking forward with mouth closed) or giving indication of rejection (gaze-averted). They found that participants with average RS only “displayed a bias *away* from the rejecting faces” (p. 11). On the other hand, participants with high RS “displayed hypervigilance toward *all* face images” (p. 11).

Schomberg et al. (2016) looked at negative affect and hypervigilance and had findings consistent with theories of hypervigilance being caused by stimuli related to an individual’s phobia. They found that factors such as fear, guilt, and nervousness were related to hypervigilant brain activity. This makes sense, as someone who is afraid would likely become more alert and looking for threats than someone who is not worried.

Other Causes

Hypervigilance is characterized as following trauma that has either affected people directly or affected people they know or to whom they hold a strong connection. While it is often associated as being one of the most common symptoms of PTSD, there are also causes not directly associated with PTSD or an anxiety disorder, such as through behavioral trauma

(Bernstein et al., 2015), which would not meet either the DSM-5's or the ICD-11's definitions for PTSD. Haravuori et al. (2016) even found that that the ICD-11 was less likely to diagnose someone with PTSD than the previous iteration of the ICD-10 and the DSM-IV. Hafstad et al. (2017) additionally found that the DSM-5 is more likely to diagnose someone with PTSD than the ICD-11, meaning someone could be clearly hypervigilant (or have any other symptom of PTSD) without necessarily having PTSD. For example, if someone has hypervigilance or a heightened sense of a threat, but does not vividly re-experience the event, the ICD-11 would not consider the patient to have PTSD. Not being diagnosed with PTSD, therefore, does not negate the fact that someone may have a very real case of hypervigilance.

Traumatic events can cause hypervigilance without necessarily causing PTSD. This event can range in its scope and direct impact on an individual. For example, hypervigilance can be caused by the trauma of being involved in a single mass shooting incident (Bugge et al., 2019) or a series of shorter but constant traumatic-inducing events (APA, 2013). Additionally, hypervigilance can be brought by being exposed indirectly to trauma (Wusik & Jones, 2014). A person does not have to experience trauma for themselves to be affected by it.

Behavioral trauma is another cause of hypervigilance. Behavioral trauma can be caused by betrayal trauma, or trauma caused from being socially betrayed by a peer (Bernstein et al., 2015). This can lead to hypervigilance in adults. However, it is not likely to develop in children who experience similar traumas. Betrayal creates anxiety and distrust towards others in adults, and this can lead to people not being able to integrate their feelings, thoughts, or experiences in close relationships, in a concept known as dissociation.

How a traumatic event is framed can also lead to hypervigilant states of being. For example, if an event, such as the Boston Marathon Bombing, is characterized with fear and

anger, Wormwood et al. (2018) found that this could produce a significantly higher number of false alarm reactions in people. Specifically, Wormwood et al. (2018) studied a group's ability to distinguish between armed and unarmed targets. Subjects were given an exercise where they were to shoot armed targets and not shoot unarmed targets. The false alarms triggered by hypervigilance caused people who saw the attack framed negatively to shoot unarmed targets more than the control group (Wormwood et al., 2018). This is contrasted with people who learned about the same event framed positively, who did not have a higher false alarm than the control group, which was given a neutral framing of the events. These subjects still had negative and fearful experiences from seeing images of the bombing but did not have as high of a false alarm rate. People from every group in the study still were negatively impacted by images of the event, but those for whom the event was framed negatively had a higher false alarm rate.

Hypervigilance can also be a learned behavior. Sanders et al. (2020) studied caretakers of service members or veterans. They found that the caretakers themselves could become hypervigilant when they constantly felt the need to be alert to things in their environment "that could that could potentially trigger their (service member or veteran) to have a negative reaction" (p. 11). In these cases, hypervigilance was not developed out of a traumatic event or series of events, but it was a learned behavior that caretakers felt was necessary to effectively do their jobs.

Physical Indicators

Studies have shown that there are several indicators of hypervigilance, from internal biological chemistry to external actions. The human body produces chemicals based on heightened alertness. When people live in a heightened state of awareness, it also shows in their

behaviors and actions. These biological markers and actions can show whether a person is hypervigilant, whether or not they admit it themselves.

Biological Chemistry

Yoon and Weierich (2016) studied the use of cortisol and an enzyme called salivary alpha amylase (sAA) in trauma exposure. They found that when patients were given a reminder of trauma, sAA increased while cortisol stayed at the baseline. This brought the authors to the conclusion that sAA could be an “effective and cost-efficient biomarker for vigilant affective processing” (p. 24) because sAA “predicted both heightened neural reactivity to actual threat, and also neural hypervigilance in the absence of threat” (p. 24). This enzyme can be used to measure whether someone’s body is functioning in a hypervigilant or hyperaware state. However, this a better measure for people who are currently experiencing high levels of hypervigilance than when a hypervigilant person is at a resting state. In a similar study by Kleshchova et al. (2019), the saliva of trauma-exposed women who were studied did not necessarily have more sAA than the control group. Kleshchova et al. (2019) did, however, state that their study agreed with Yoon and Weierich (2016) in that “that sAA might serve as a salivary biomarker of neural hypervigilance and autonomic hyperarousal” (p. 76), and they attributed the levels of sAA being similar to that of the control group to the fact that their “sample was high-functioning and represented the moderate range of trauma symptoms” (p. 76), meaning that, while the trauma-exposed women that they studied were considered to have chronic hypervigilance, the level to which they expressed their hypervigilance was relatively moderate. Kleshchova et al. (2019) further concluded that “increased synchronization of threat-detection circuitry in the absence of threat and elevated basal sympathetic tone might serve as resting-state markers of chronic hypervigilance” (p. 76). Simply put, in addition to the

biomarkers that can predict hypervigilant brain function, the brains of individuals with chronic hypervigilance will continue to look for threats even while the person is at rest.

External Actions

Hypervigilance can also affect the actions of individuals. These can range from simple chronic worry and stress to running away from a perceived threat (Smith Lee & Robinson, 2019). Hypervigilance can also cause people to stay up all night, to constantly scan for danger, and to carry a weapon (Tung et al., 2018). In a case studied by Wusik and Jones (2015), one individual was unable to go out without a weapon, even when he was in an environment which he knew to be safe. He saw his hypervigilance as “adaptive and important for his personal protection and did not see [behaviors such as hypervigilance] as interfering with his life and leading to his deteriorating well-being” (p. 28). People dealing with these actions may not know that they are struggling with hypervigilance or view their actions negatively. This does not negate that fact of their condition.

Effects

As mentioned before, a constant state of hypervigilance can cause neurological effects as measured by biomarkers in saliva or brain activity (Yoon & Weierich, 2016; Kleshchova, 2018). Cornwell et al. (2017) additionally found that an adaptive cognitive effect of anxiety is impaired neural feedback, which can eventually lead to impaired perceptual learning.

Other effects of hypervigilance include emotional suppression and decreased perceived quality of life. Sanders et al. (2019) found that in caregivers, who become hypervigilant to protect those in their care, there is also a correlation of emotional suppression. This agrees with Bernstein et al.’s (2015) conclusion that hypervigilance can lead to dissociation in social

relationships. Forbes et al. (2018) found that “anger, hypervigilance, and detachment” (p. 348) are also leading causes of people who perceive that they have a low quality of life.

Some cases of hypervigilance can lead to auditory verbal hallucinations (McCarthy-Jones & Longden, 2015). This occurred when a person who was subject to an assault became hypervigilant afterward and “began to hear comments from people passing his house at night suggesting that he would be assaulted” (p. 7). This person expected to be the victim of another assault, and thus expected to hear people saying he would be assaulted. This anxiety and constant searching for threats lead him to believe that he physically heard what he expected to hear.

In Law Enforcement

Law enforcement officers are open to a multitude of ways to be impacted by hypervigilant. Traumatic events that can lead to hypervigilance (with or without clinically defined PTSD) are not uncommon in law enforcement careers. Learning about similar traumatic experience about others can also contribute to actual anxiety or the need to learn to stay alert at all times. This applies to both law enforcement officers and the people with whom they interact.

Law Enforcement Officers

Prevalence

Many law enforcement officers have shown traits associated with hypervigilance and/or PTSD. Some of this appears to be trained, while some is brought on from events. Junger (2018) found law enforcement training can produce and even encourage hypervigilance as a tactic to be constantly aware of one’s surroundings. This would be similar to the caretakers studied by Sanders et al. (2020), in whom hypervigilance was a learned behavior in order to most effectively perform their job duties. The APA (2013) uses the example of “first responders collecting human remains” and “police officers repeatedly exposed to details of child abuse”

(para. 27) as common examples of possible causes of PTSD, of which hypervigilance is a symptom.

In a study by Friese (2020), hypervigilance was found to be the most common stressor found affecting law enforcement officers. Three-quarters (75%) of the officers studied observed reported that hypervigilance was a common stressor, the highest of any observed stress, and almost two-thirds (63%) of the officers self-reported hypervigilance as a stressor for themselves, second only to physical tension. Friese (2020) also stated that sleep deprivation in the officers who were studied was likely caused by shift work, long hours, and hypervigilance.

Applying Causes to Law Enforcement

As seen previously, hypervigilance can be caused by a variety of ways, all of which can be applied to law enforcement officers. PTSD and hypervigilance can occur from a single large event, such as a mass shooting or bombing (Wormwood et al., 2018; Bugge et al., 2019), or from continuous exposure to unpleasant and traumatic experiences (APA, 2013), such as investigating heinous crimes on a consistent basis. Additionally, applying recent events, seeing mass violent protests and hear derogatory remarks being broadcast against them for weeks and months can also contribute to police officers becoming more concerned with being aware of threats. If PTSD develops, it may be expressed through hypervigilance, among other symptoms and times requirements. A popular method of dealing with PTSD called Posttraumatic Growth (PTG) will be discussed later. Constant reminders of the traumatic events framed in a negative light can also make an officer more hypervigilant and more likely to react to a false alarm.

Hypervigilance could also be present in officers if they have a preexisting anxiety disorder, such as SAD, rejection sensitivity, or a phobia (Ehrlich et al., 2015; Schomberg et al., 2016; Wermes et al., 2018). These would not necessarily be caused by something that occurred

in the officer's duties, but they can still have the power to affect his or her performance. If an officer was not aware of such a condition prior to employment, but has yet to experience something traumatic enough to cause hypervigilant tendencies, the officer might want to consider one of these as a possibility.

Behavioral trauma was another possible cause of hypervigilance that was discussed (Bernstein et al., 2015). This can occur not because of an event that happens in the line of duty, but because of internal relationships with other officers. If the officers spend time building trust and relationships with each other, and one officer shows that he or she cannot be trusted, either through misconduct or some other form of betrayal, it can shatter trust and form dissociation in relationships with other officers as they become hypervigilant toward potential betrayal from each other. As Doreian and Conti (2017) pointed out, ever since police start in the academy, they begin a socialization process, which eventually develops into what is known as the "thin blue line" (p. 83). This is a strong tie among officers that gives a stronger sense of comradery and leads to the police to side with each other when conflicts arise with other groups, such as the community. According to Doreian and Conti (2017), this is a specific effort is to build solidarity and trust within police cohorts. Because of these efforts to create such strong amounts of trust, behavioral trauma could become especially difficult for law enforcement professionals to overcome. This can lead to hypervigilance in social situations with officer as well as with others and can cause building trust to be more difficult.

Influence on Behaviors and Choices

Hypervigilance is often seen as a disadvantage to law enforcement officers, as it can lead to aggressive and aggravated behavior, and the unintentional shooting of unarmed suspects. The impact hypervigilance has on decision making have been found to be dangerous. Junger (2018)

used the example of Johannes Mehserle, a police officer who mistakenly shot a man who was lying in the prone position. Officer Mehserle's hypervigilance made him believe that the man was likely to injure him. He also believed that he was grabbing his Taser, but the stress and anxiety in the moment caused him to pull out and fire his pistol instead. This is probably similar to the impaired brain functioning found by Cornwell et al. (2017) when anxious brains have incomplete feedback.

While situational awareness is important for law enforcement professionals, becoming too hypervigilant can create dangerous and even fatal mistakes for the public, as seen in the example above. As stated previously, when traumatic events are frequently reexperienced with negative interpretations, people can become hypervigilant and more likely to have a false alarm, for example, being sure that someone has a gun when they do not (Wormwood et al., 2018). This can become dangerous for citizens if a police officer is convinced of a false alarm and his or her anxious brain does not allow for clear decision making. In Wormwood et al.'s (2018) experiment, the subjects who were more hypervigilant made the decision to shoot unarmed people more often than those who were less hypervigilant. This is not a comforting model to follow if the same results transfer to real use of force situations. It is similarly dangerous if, after a traumatic event or attack, an officer becomes hypervigilant and develops auditory hallucinations, thinking he or she overhears people saying that they will attack the officer, due to expecting such comments. At this level, hypervigilance ceases to be useful to law enforcement officers and instead becomes dangerous for both the officer and the public that they seek to protect.

Hypervigilance can make officers constantly alert and can take away from their rest. As hypervigilance and sleep deprivation are already two major sources for officer stress (Frieese,

2020), this will just cause one problem on top of another. Officers will not be able to get better if they stuck in a cycle of stress.

Others

In the realm of law enforcement, and the field of criminal justice as a whole, there are categories of people other than those in law enforcement who display hypervigilant traits. These groups are also important for law enforcement professionals, who will interact with these people on a regular basis, to understand. These people can range from direct victims of crime to people who live in high crime areas who are either suspects of crimes or witness to crimes.

Victims

Victims can develop distrust and hypervigilance, especially victims of particularly heinous and traumatic crime such as sexual assault or mass shootings. This distrust can extend to police officers and even caretakers. When studying victims of a mass shooting in Norway, Bugge et al. (2019) found that even when the victims were in the hospital and surrounded by nurses, they still felt as though they were in danger. One subject described thinking of anyone in a uniform as being fake and thought that the doctors and nurses would kill her when she was sedated. Nurses that were sensitive to these hypervigilant needs were reported as being helpful to the patients' healing process.

Police officers need to be aware that victims of heinous crimes might not trust them and therefore may not be as willing to help. They may become antagonistic and expect more of the same trauma. Depending on the circumstances of the traumatic event, the police officer might even unintentionally serve as a trauma reminder for the victim. Officers need to be sensitive to these victims and understand that they themselves have the possibility of triggering a

hypervigilant response from the victim. By being sensitive and understanding the needs of the victim, the officer will be able to help the victim as the victim helps the officer with information.

High Crime Community Members and Suspects

People who live in high crime communities can become hypervigilance due to the constant danger in their area. Individuals from these communities are also likely to have continuous and primarily negative interactions with law enforcement officers. This can cause them to become hypervigilant against law enforcement as well. The hypervigilance produced by negative police interactions has the potential for endangering law enforcement officers who need to question suspects or witnesses in such a community where distrust of the police is high. This is especially true in some African American communities, particularly when not much time has passed after the shooting of young African American men within the specific community or featured prominently in the news, whether or not the shooting was justified (Range et al., 2018).

Smith et al. (2019) found that in a sample of residents of Chicago of primarily African American or other minority participants, exposure to police violence increased the chances of hypervigilance more than exposure to community violence by almost double. This exposure to police violence was more likely in African Americans than other ethnicities, and it was also more common in males than females. The significance of the different effects of community violence and police violence in these communities is important for policing. While participants in this study reported more community than any police stop, traumatic police stops and police violence still increased hypervigilance by 9.8 percentage points on a 100 point scale, while community violence only increases hypervigilance by 5.5 percentage points (Smith et al., 2019). This hypervigilance will likely contribute to conflict during such police stops, which will increase the likelihood of force or violence.

Range et al. (2018) studied mass trauma among the African American community. They pointed to incidents such as Michael Brown, Eric Garner, and Walter Scott, in which unarmed African Americans were shot and killed by police officers, that were featured prominently in the media. However, Range et al. (2018) claimed that these feelings extend beyond the media portrayals, as some African Americans may experience similar situations in their own communities. These communities often also tend to be more collectivist, as opposed to individualist, meaning that what happens to their immediate and extended family members and close friends can be very impactful to them. Even if police are dealing with someone new, this new person's connection to someone in the community who has experienced police-involved trauma could still have an impact on this new person's behavior.

Smith Lee & Robinson (2019) focused specifically on African American individuals who have lost people close to them to police violence. Many of the participants thought that these deaths were "senseless, preventable, and racially motivated" (p. 173) whether or not they actually were. This led some of the participants to see the police as the perpetrators of violence, not people whose goal was to serve and protect. These events "heightened distrust of police officers and activated hypervigilance" (p. 173) for the African American participants. Participants sometimes expressed hypervigilance as simply running away when they saw the police, even though they knew that they had done nothing wrong. Their distrust and perceived threat of the police made them believe that the officer would behave violently toward them. This introduces the sad paradox that someone will run from a non-threatening police officer although they have nothing to hide, which in turn can cause the police officer to chase after and potentially become dangerous to the person who they now perceive as a threat. This problem will only be able to be solved by understanding from both sides.

Overcoming

While hypervigilance is not in itself bad, it often seen as maladaptive or a negative affect (Hafstad et al., 2014; Schomberg et al., 2016; Range et al., 2017; Wormwood et al., 2018; Kleshchova et al., 2019; Friese, 2020; Sanders et al., 2020). As the effects shown have indicated, it can be harmful to one's life overall and can lead to costly mistakes. However, law enforcement officers can use hypervigilance and the trauma associated with it to their advantage. It can also be seen as an opportunity to grow.

Although there is a difference between PTSD and hypervigilance (the latter often associated with being a symptom of the former), treating the underlying issue will help reduce unnecessary and potentially harmful manifestations of hypervigilance. These methods include Posttraumatic Growth (PTG), as well as unifying story-telling method. However, in order for these methods to be effective, the patient must be open to self-improvement and change.

Using Hypervigilance to the Advantage of Law Enforcement

Before anything can change, the problem must first be identified, and the individual must be receptive to change. According to the Effort Justification theory, patients can use the effort they put towards therapy to justify that they really want to improve something (Wusik & Jones, 2014). Conversely, people who do not truly seek change will not put in the effort needed for change. If officers do not accept that they are not completely fine and think that they do not need any help, then they will push against change and the help that they need.

As a preemptive measure, Junger (2018) focused on countering hypervigilance and finding solutions in law enforcement training to help officers prepare for the stressful situations in which law enforcement officers can learn to think clearly in such situations. His conclusion was that training should expose officers to a variety of physiologically and psychologically

stressful situations. The training aspect of these situations should focus on cognitive conditioning to reduce hypervigilance and over-confidence. This will help officers access the positive side of hypervigilance, where they will be able to remain alert while also thinking clearly. However, preemptive measures will not always be available or able to predict every outcome, so officers need to be aware of other practical ways to deal with hypervigilance as well.

Another strategy for benefiting from hypervigilance is to use the opportunity to build resilience and draw closer to one's team. Range et al. (2018) found that for members of the African American community traumatized by police interactions who were studied, story-telling and community-based methods of resilience are helpful. This can also be helpful to law enforcement officers if they share their stories to grow closer as a team. This might require an environment for openness and a possible culture change if officers feel uncomfortable sharing when they have trauma. By framing the events in their story to focus on what positive growth can be achieved by the experience, they reduce the risk of making false alarms (Wormwood et al., 2018). However, this has the potential to cause relational damage in the case of betrayal (Bernstein et al., 2015).

Moving past resilience, Baumann (2018) studied a technique for dealing with PTSD called Posttraumatic Growth (PTG). PTG does not focus on resilience, "which is usually considered persisting in the face of great stress and involves a return to baseline" (p. 289). Instead, PTG aims to use the trauma to help people to hopefully "experience an increased appreciation for being alive, a shift toward more meaningful relationships, and an increased sense of personal strength that often emerges after traumatic and challenging events" (p. 289). It is important to note the difference between PTSD and hypervigilance, however, and how this could affect PTG being used for hypervigilance. Hypervigilance is a symptom of PTSD, but as

shown previously, people who are hypervigilant might not be able to be diagnosed with PTSD. Baumann (2018) pointed out that practices similar to PTG have also been effective in causes were “complex and prolonged stresses do not fit the PTSD model” (p. 289). A PTG approach should work with people who do not necessarily have PTSD, but can still be effective when people use the principles of accepting a “new normal” or “new reality”, uncovering new possibilities, and, in some cases, faith. PTG requires a paradigm shift and an acceptance to a new way of viewing the world that could be difficult for some people to be open to.

Another practical solution and opportunity in hypervigilance is animal therapy. For veterans suffering from PTSD and hypervigilance, Yarborough (2018) found that dogs can relieve some hypervigilant stress from veterans. This is because “constant hypervigilance took a toll on [the veterans] lives, affecting relationships and their ability to work and sleep. . . . dogs helped to share the burden of continuously needing to monitor the environment” (p. 121). Dogs were able to stay alert, allowing the veteran to put some trust in them and get some rest. This principle may be able to be applied to teams for officers, if officers are able to put trust in one another so that the other does not have to be alert when there is no danger. This should probably only be used as a temporary solution so that growth can eventually take place in the officers.

In Cornwell et al.’s (2017) study of neural feedforward and feedback in a brain under stress, the authors found that this change could be “reversed pharmacologically by an anxiolytic compound” (p. 452), which in this case was benzodiazepine alprazolam. This compound was shown effective when it was compared against a placebo. Of course, no pharmacological solutions should be sought without the advice of a medical professional and focus on growth should be a priority.

Empathy is another important aspect of taking advantage of hypervigilance. By understanding that they are not the only ones who go through it, law enforcement officers with hypervigilant tendencies can relate to others who might be hypervigilant towards them. By recognizing that victims, witnesses, and potential suspects also might have hypervigilance, officers can learn to empathize with victims and understand that the alertness to threat they hold toward an individual may be reciprocated. Bugge et al. (2019) found that staff members of a hospital that understood the hypervigilance in trauma patients and were sensitive to the patients' needs were important to the victims' recovery and healing. This can also be used practically for police work, as being sympathetic, empathetic, and understanding to a frightened or traumatized victim can make them more likely to open up than if the officer is aggressive or apathetic. This will also give the officers the understanding that sometimes when people run or act out, it may not be that they are guilty, but that they are simply scared and are processing trauma, either from their own previous experiences or the experience of someone they know and to whom they are close (Smith Lee & Robinson, 2019). While empathy is a good life skill in general, it is especially applicable to law enforcement professionals.

Conclusion

Recent events illustrate how important this issue is on both sides of law enforcement. Many law enforcement officers lay their lives on the line every day to protect their communities. When these communities see pictures and videos of a uniformed police officer kneeling on the neck of someone who looks like them as was the case with the tragic George Floyd incident (Bennett et al., 2020), it is possible that a portion of these individuals will develop a hypervigilance towards law enforcement officers. It is important for police to understand that going forward, some people might behave more aggressively or suspiciously (such as running

away for no obvious reason) when dealing with police. After the subsequent riots (Taylor, 2021) and otherwise seemingly unprovoked shootings of police officers (Weber, 2020), law enforcement professionals could potentially become hypervigilant themselves or work with people who are. It is important for law enforcement to understand how to deal with hypervigilance in others, whether suspects, victims, or colleagues, and how to deal with it in themselves. Before the chaos of the summer of 2020 broke out, police officers were already under a significant increase in stress and extra duties brought on by the COVID-19 pandemic (Stogner et al., 2020). Stress and anxiety are already contributing factors to hypervigilance, which will only make both sides more susceptible to maladaptive versions of hypervigilance. If neither side seeking understanding in this area of their lives, then reconciliation and restoration will be much more difficult.

Hypervigilance is not necessarily an inherently negative condition, but it should be used under control if it is going to be used as a benefit. It can also be used as an opportunity to grow, individually as well as in teams. There is not a single cause of hypervigilance, and it can come from a variety of places: from learned behavior to traumatic events to a social anxiety disorder. While it is important for police to know how it affects them and their colleagues personally, it is equally as important for them to know that others with whom they interact also experience hypervigilance. Officers need to be aware of this and need to be able to respond accordingly, whether it is for a victim who does not feel safe around caretakers or a young man in a high crime neighborhood who runs because he is afraid the police will use senseless violence on him for no apparent reason. Without a proper view of hypervigilance, police can find themselves in a low quality of life and filled with unneeded stress. Officers need to practice using hypervigilance in a controlled manner and use it as an opportunity to grow. This will not only help law enforcement

officers in their own lives, but it will also help make their communities safer when officers are able to think clearly to fulfill their mission of serving and protecting.

References

- American Psychiatric Association. (2013). *Anxiety disorders*. Diagnostic and Statistical Manual of Mental Disorders (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596.dsm07>
- Baumann, S. L. (2018). From posttraumatic stress disorder to posttraumatic growth: A paradigm shift or paradox? *Nursing Science Quarterly*, *31*(3), 287-290.
<https://doi.org/10.1177/0894318418774923>
- Bennett, D., Sohyun Lee, J., & Cahlan, S. (2020, May 30). The death of George Floyd: What video and other records show about his final minutes. *The Washington Post*.
<https://www.washingtonpost.com/nation/2020/05/30/video-timeline-george-floyd-death/?arc404=true>
- Bernstein, R. E., Delker, B. C., Knight, J. A., & Freyd, J. J. (2015). Hypervigilance in college students: Associations with betrayal and dissociation and psychometric properties in a brief hypervigilance scale. *Psychological Trauma: Theory, Research, Practice, and Policy*, *7*(5), 448-455. <http://dx.doi.org/10.1037/tra0000070>
- Bugge, I., Jensen, T. K., Nilsen, L. G., Ekeberg, Ø, Dybdg, G., & Disethab, T. H. (2019). Psychosocial care for hospitalized young survivors after the terror attack on Utøya Island: A qualitative study of the survivors' experiences. *Injury*, *50*(1), 197-204.
<https://doi.org/10.1016/j.injury.2018.10.024>
- Cornwell, B. R., Garrido, M. I., Overstreet, C., Pine, D. S., & Grillon, C. (2017). The unpredictable brain under threat: A neurocomputational account of anxious hypervigilance. *Biological Psychiatry*, *82*(6), 447-454.
<https://doi.org/10.1016/j.biopsych.2017.06.031>

De Stefano, C., Orri, M., Agostinucci, J. M., Zouaghi, H., Lapostolle, F., Baubet, T., & Adnet, F.

(2018). Early psychological impact of Paris terrorist attacks on healthcare emergency staff: A cross-sectional study. *Depression and Anxiety*, 35(3), 275–282.

<https://doi.org/10.1002/da.22724>

Doreian, P., & Conti, N. (2017). Creating the thin blue line: Social network evolution within a police academy. *Social Networks*, 50, 83-97. <https://doi.org/10.1016/j.socnet.2017.03.011>

Ehrlich, K. B., Gersona, S. A., Vanderwert, R. E., Cannon, E. N., & Fox, N. A. (2015).

Hypervigilance to rejecting stimuli in rejection sensitive individuals: Behavioral and neurocognitive evidence. *Personality and Individual Differences*, 85(1), 7-12,

<https://doi.org/10.1016/j.paid.2015.04.023>

Federal Bureau of Investigation. (2020a). *Officers assaulted* (Law Enforcement Officers Killed and Assaulted, 2019). U.S. Department of Justice, Federal Bureau of Investigation.

<https://ucr.fbi.gov/leoka/2019/topic-pages/officers-assaulted.pdf>

Federal Bureau of Investigation. (2020b). *Officers feloniously killed* (Law Enforcement Officers Killed and Assaulted, 2019). U.S. Department of Justice, Federal Bureau of Investigation.

<https://ucr.fbi.gov/leoka/2019/topic-pages/officers-feloniously-killed.pdf>

Forbes, D., Nickerson, A., Bryant, R. A., Creamer, M., Silove, D., McFarlane, A. C., Van Hooff, M., Phelps, A., Felmingham, K. L., Malhi, G. S., Steel, Z., Fredrickson, J., Alkemade, N., & O'Donnell, M. (2018). The impact of post-traumatic stress disorder symptomatology

on quality of life: The sentinel experience of anger, hypervigilance and restricted affect.

Australian & New Zealand Journal of Psychiatry, 53(4), 336-349.

<https://doi.org/10.1177/0004867418772917>

- Friese, K. M. (2020). Cuffed together: A study of how law enforcement work impacts the officer's spouse. *International Journal of Police Science and Management*, 22(4), 407-418. <https://doi.org/10.1177/1461355720962527>
- Hafstad, G. S., Dyb, G., Jensen, T. K., Steinberg, A. M., & Pynoosb, R. S. (2014). PTSD prevalence and symptom structure of DSM-5 criteria in adolescents and young adults surviving the 2011 shooting in Norway. *Journal of Affective Disorders*, 169(1), 40-46. <https://doi.org/10.1016/j.jad.2014.06.055>
- Hafstad, G. S., Thoresen, S., Wentzel-Larsen, T., Maercker, A., & Dyb, G. (2017). PTSD or not PTSD? comparing the proposed ICD-11 and the DSM-5 PTSD criteria among young survivors of the 2011 Norway attacks and their parents. *Psychological Medicine*, 47(7), 1283-1291. <http://dx.doi.org/10.1017/S0033291716002968>
- Haravuori, H., Kiviruusu, O., Suomalainen, L., & Marttunen, M. (2016). An evaluation of ICD-11 posttraumatic stress disorder criteria in two samples of adolescents and young adults exposed to mass shootings: Factor analysis and comparisons to ICD-10 and DSM-IV. *BMC Psychiatry*, 16(139). doi:10.1186/s12888-016-0849-y
- Junger, P. (2018). The effects of hypervigilance on decision-making during critical incidents. *Homeland Security Affairs*, 1-101. Retrieved from <http://ezproxy.liberty.edu/login?url=https://search.proquest.com/docview/2206262121?accountid=12085>
- Kleshchova, O., Rieder, J. K., Grinband, J., & Weierich, M. R. (2019) Resting amygdala connectivity and basal sympathetic tone as markers of chronic hypervigilance. *Psychoneuroendocrinology*, 102(1), 68-78. <https://doi.org/10.1016/j.psyneuen.2018.11.036>

- McCarthy-Jones, S., & Longden, E. (2015). Auditory verbal hallucinations in schizophrenia and post-traumatic stress disorder: Common phenomenology, common cause, common interventions? *Frontiers in Psychology*. doi:10.3389/fpsyg.2015.01071
- McNally, R. J., Robinaugh, D. J., Wu1, G. W. Y., Wang, L., Deserno, M. K., & Borsboom, D. (2015). Mental disorders as causal systems: A network approach to posttraumatic stress disorder. *Clinical Psychological Science*, 3(6), 836-849.
<https://doi.org/10.1177/2167702614553230>
- McTeague, L. M., Laplante, M. C., Bull H. W., Shumend, J. R., Lang, P. J., & Keild, A. (2018) Face perception in social anxiety: Visuocortical dynamics reveal propensities for hypervigilance or avoidance. *Biological Psychiatry*, 83(7), 618-628.
<https://doi.org/10.1016/j.biopsych.2017.10.004>
- Range, B., Gutierrez, D., Gamboni, C., Hough, N. A., & Wojciak, A. (2018). Mass trauma in the African American community: Using multiculturalism to build resilient systems. *Contemporary Family Therapy*, 40(3), 284-298. <https://doi.org/10.1007/s10591-017-9449-3>
- Reuters. (2020, December 7). U.S. saw summer of Black Lives Matter protests demanding change. *U.S. News*. <https://www.usnews.com/news/top-news/articles/2020-12-07/us-saw-summer-of-black-lives-matter-protests-demanding-change>
- Sanders, A. M., Boileau, N. R., Hanks, R. A., Tulskey, D. S. and Carlozzi, N. E. (2020) Emotional suppression and hypervigilance in military caregivers: Relationship to negative and positive affect. *Journal of Head Trauma Rehabilitation*, 35(1), 10-20.
doi:10.1097/HTR.0000000000000507

- Schomberg, J., Schöne, B., Gruber, T., & Quirin, M. (2016). Emotion and hypervigilance: Negative affect predicts increased P1 responses to non-negative pictorial stimuli. *Experimental Brain Research*, 234(6), 1395-1402. <http://dx.doi.org/10.1007/s00221-015-4544-x>
- Smith Lee, J. R. & Robinson, M. A. (2019) “That’s my number one fear in life. It’s the police”: Examining young black men’s exposures to trauma and loss resulting from police violence and police killings. *Journal of Black Psychology*, 45(3), 143-184. <https://doi.org/10.1177/0095798419865152>
- Smith, N. A., Voisin, D. R., Yang, J. P., & Tung, E. L. (2019). Keeping your guard up: Hypervigilance among urban residents affected by community and police violence. *Health Affairs*, 38(10), 1662-1669. <http://dx.doi.org/10.1377/hlthaff.2019.00560>
- Stogner, J., Miller, B. L., & McLean, K. (2020). Police stress, mental health, and resiliency during the COVID-19 pandemic. *American Journal of Criminal Justice*, 45(4), 718-730. <https://doi.org/10.1007/s12103-020-09548-y>
- Taylor , D. B. (2021, January 6). George Floyd protests: A timeline. *The New York Times*. <https://www.nytimes.com/article/george-floyd-protests-timeline.html>
- Tung, E. L., Johnson, T. A., O’Neal, Y., Steenes, A. M., Caraballo, G., & Peek, M. E. (2018). Experiences of community violence among adults with chronic conditions: Qualitative findings from Chicago. *Journal of Internal Medicine*, 33(11), 1913-1920. [doi:10.1007/s11606-018-4607-3](https://doi.org/10.1007/s11606-018-4607-3)
- Weber, C. (2020, September 13). Gunman sought after California deputies shot in patrol car. *ABC News*. <https://abcnews.go.com/US/wireStory/report-la-county-deputies-shot-light-rail-station-72978668>

- Wermes, R., Lincoln, T. M., and Helbig-Lang, S. (2018) Anxious and alert? Hypervigilance in social anxiety disorder. *Psychiatry Research*, 269(1), 740-745.
<https://doi.org/10.1016/j.psychres.2018.08.086>
- Wessing, I., Romer, G., & Junghöfer, M. (2017). Hypervigilance-avoidance in children with anxiety disorders: Magnetoencephalographic evidence. *Journal of Child Psychology and Psychiatry, And Allied Disciplines*, 58(1), 103–112. <https://doi.org/10.1111/jcpp.12617>
- Wormwood, J. B., Lynn, S. K., Barrett, L. F., & Quigley, K. S. (2016). Threat perception after the Boston Marathon bombings: The effects of personal relevance and conceptual framing. *Cognition and Emotion*, 30(3), 539-549.
<https://doi.org/10.1080/02699931.2015.1010487>
- World Health Organization (2019). *6B40 Post traumatic stress disorder*, International Statistical Classification of Diseases and Related Health Problems (11th ed.).
<https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/2070699808>
- Wusik, M. F., & Jones, R. T. (2014). The trauma of uncertainty: The use of comprehensive assessment and prolonged exposure to treat indirect exposure to a mass shooting. *Clinical Case Studies*, 14(1), 15-30. <https://doi.org/10.1177/1534650114533815>
- Yarborough, B. J. H., Stumbo, S. P., Yarborough, M. T., Owen-Smith, A., & Green, C. A. (2018). Benefits and challenges of using service dogs for veterans with posttraumatic stress disorder. *Psychiatric Rehabilitation Journal*, 41(2), 118-124.
<http://dx.doi.org/10.1037/prj0000294>
- Yoon, S. A., & Weierich, M. R. (2016) Salivary biomarkers of neural hypervigilance in trauma-exposed women. *Psychoneuroendocrinology*, 63, 17-25.
<https://doi.org/10.1016/j.psyneuen.2015.09.007>