Hidden demons: An inquiry into the nature of PTSD

Jake D. Warnecke

Author's Note: As this in an inquiry paper delving into the nature of PTSD, it is also necessary to explore the causes behind it, as such certain trigger warnings should be attached to it: Imagined though slightly graphic depictions of violence and abuse, mentions of death, mentions of rape. Reader discretion is advised.

Off the coast of Normandy transport ships crash through breakers off a wind-scoured beach, the men inside sit or stand in a state of nervous excitation. Some vomit, others pray, all hope to live to see the end of the day. Metal scrapes against sand, for a moment all is still, then the world explodes into sound. The doors drop with a crash, orders are shouted, men charge. The air is filled with the crack of guns and the whiz of speeding bullets cascading down from the clifftop bunkers, within moments thousands will die, while thousands more will be left with scars they can but struggle to describe.

In a different time, in a different place, a car door slams. She knows that sound, deep in her soul, her shoulders tense, there is a frisson in the air. Her kids are at the table, playing and patiently waiting while dinner is prepared, she shoos them away, false smile fixed in place. Desperately projecting calm and happy as she tells them they can have more screen time, so long as it's in their room, so long as it's *away.* The door opens with a crash, and he stumbles in, the sunny look on his face quickly replaced with thunderheads as he sees the table, laden with plates and silverware but no food. Shouts break the silence, incandescent rage soon joined by the crash of a bottle, the crack of flesh meeting flesh, soon to be augmented once again by the sound of sirens, the strobe of lights through the window. Another drink, another fight, another scar layered atop the mat of half-healed wounds in her mind.

These are relatively modern examples of what can cause Post Traumatic Stress Disorder, or PTSD, but it is—like almost all mental health issues—something that has plagued humanity for our entire history. If one knows what to look for, they can find characters exhibiting traits and symptoms consistent with PTSD in historical records dating as far back as ancient Greece, and it occurs in a wide range of media, from Shakespeare's Romeo and Juliet to Marvel's Iron Man 3. In modern times it has gone by a few names, such as battle fatigue and shell shock. Regardless of what one calls it, it is all the same, the same symptoms, the same sense of hopelessness, the same painful memories, the same decision to take one's own life rather than continue to be tortured by their own mind. However, the difference between PTSD in the past and today is that now we are beginning to understand it and how to fight it.

The first thing to understand about any malady, whether mental or physical, is the cause, followed by how common it is. The first question is easy to answer: PTSD is caused by exposure to a traumatic event. It really is that simple, the cliche is that it is caused by war and combat. While those are perhaps the most common, they are far from the only traumatic events that one can go through in a lifetime. As for the prevalence, it affects about 3.5% of U.S. adults every year–about one in eleven people will be diagnosed in their lifetimes, and it

is more common in women than men (What Is Posttraumatic…). This brings us to both our first ray of hope and a common misconception to disabuse. Trauma is inevitable; cars crash, family members die, disasters of both man-made and natural etiology occur. Chances are, if you were to go ask eleven adults about any traumatic memories or parts of their life, most, if not all of them would be able to recall at least one. Yet, of those eleven people only one of them, statistically speaking, will develop PTSD. Experiencing a traumatic event does not automatically mean one will develop PTSD, and in fact the majority of people do not.

The other issue we need to discuss, when it comes to prevalence, is that of population, or rather specific population. PTSD is ultimately caused by exposure to traumatic events, something that everyone will experience at some point in their lives. However, the intensity and frequency of traumatic events appears to have a strong hand in influencing whether an individual will develop PTSD. There are some specific populations that are exposed to intense traumatic experiences at a much higher rate than the general population. Perhaps the groups you have had in mind throughout reading this is that of military veterans–or specifically–combat veterans and first responders.

While the specific traumas experienced by the two groups are different, one commonality is that they are exposed to an intense level of trauma at a high frequency. Most studies performed in western countries tend to estimate prevalence of PTSD ranging from around 5% to around 35% for both groups (Obuobi-Donkor et al.). There is a reason these are considered estimates, and a reason they range so widely as well; these are both groups wherein the stigma against talking about mental health and reaching out for help is particularly strong. Both groups have cultures that value individual strength and fortitude, and somewhere along the way it became ingrained that receiving treatment for mental health diminished those traits. This is luckily something that is changing, but it is a slow process. Until more progress is made, we can only estimate these numbers.

There is a stigma when it comes to discussing mental health (Rössler). Entire dissertations could be written about this problem alone. Historically we have labeled mental health as something to be rarely discussed, and–even then–only behind closed doors. This applies to mental health as a whole, but it is particularly powerful when it comes to approaching admittance that there may be a problem such as PTSD. The exact power and effect of this stigma varies from culture to culture, but it is a universal problem regardless. This stigma also affects men far more than women. Almost any study or article discussing the prevalence of any disorder like PTSD or major depressive disorder lists it as affecting women more than men. However almost all of them will go on to say that the stigma against men self-reporting mental health issues likely skews this finding or lists it as a potential confounding variable. While women are twice as likely as men to develop PTSD statistically (What Is Posttraumatic…), in reality the difference is probably not that dramatic. However, even taking this into account, women are still more likely than men to develop PTSD. The reason for this is both heinous and obvious upon reflection; women are far more likely to be victims of rape and sexual abuse, and about *one third* of those particular victims will develop PTSD (Va.gov).

Across town a man sits in his darkened room, his head bowed, the badge on his chest reflecting the small light. He is the only one there, but he is far from alone–surrounded by ghosts. The ghost of a fellow responder, crimson blooms across his chest, a stark reminder of the mass shooter's successful ambush. The ghost of a college age girl, her whole

life in front of her, until she lost the fight with her own demons; she died choking on her own vomit as he tried desperately to save her life. The ghosts of a family of four, on their way home from dinner, when their night was cut short by the crash of a drunk driver losing control. He closes his eyes to shut the sight of them out, only to be overwhelmed by the memory. The little girl–the only one with even the weakest of pulses–somehow still clutching her stuffed bear with its pink fur shot through with crimson red, as they load her into the ambulance. He had a rough shift again, and now the ghosts are back, to remind him that they are always there, that he can never escape.

She is talking happily with her boyfriend as she unpacks the groceries. They talk about their days, how work has gone, what they should have for dinner. The banal chatter of a couple just going about their day. He reaches for a glass, hands slippery wet from doing the dishes, the glass slips, falls, and shatters on the floor. She screams, her pulse suddenly racing, nerves on fire, every instinct screaming RUN. He laughs at his own clumsiness, goes to grab a dust pan, then sees her, backed into a corner, hand to heaving chest, eyes wide, wild. It's been years since she left her ex, years since she had to fear, years since feeling like this, but all it takes is one familiar sound to send her right back there again.

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We might know how common it is, but what does PTSD actually look like? It is well known that Hollywood often struggles with portraying mental health disorders accurately, something that only makes it harder for people to get treatment. However, there are some good examples we can look to for a visual of PTSD. Iron Man 3 features an accurate portrayal of the symptoms of PTSD, though the fact that they disappear as soon as the plot demands it is almost egregious enough to cancel out RDJ's masterful performance. Bradley Cooper's performance in American Sniper was also widely lauded as being a spot on portrayal of combat acquired PTSD. These two portrayals are both very accurate, yet they look quite a bit different. This is an important fact to remember as we examine the symptoms of PTSD: no two minds or cases are the same, and symptoms can present differently. The severity of symptoms experienced also has a wide range. It is also important to remember that these categories and specific symptoms often overlap, and they can enhance each other, creating a sort of negative feedback loop or spiral.

We can group symptoms into four basic categories: intrusion/re-experiencing, avoidance, alterations in cognition and mood, and alterations in arousal and reactivity (What is post.....)(Post-Traumatic Stress Disorder).

Intrusion (or re-experiencing) symptoms are pretty much the stereotypical PTSD symptoms, they consist of intrusive and involuntary thoughts and memories. These can be limited to just thoughts and memories, or it can include things like nightmares and waking flashbacks which may be so vivid that the individual *truly* believes they are in that time and place–not realizing where they actually are in reality. These also often trigger the physical signs of a fight or flight response, such as a racing heart and sweating (something that only makes it feel more real).

Avoidance is very much what it sounds like; the individual avoids stimuli that may remind them of the traumatic experience, as well as avoiding thoughts and feelings that are related to or remind them of the event. The DSM-5 also makes a point to say that these are deliberate choices on the part of the individual (DSM-5). As you can imagine this category of symptoms in particular can make it difficult for an individual to receive or ask for help as that involves talking about and thus being reminded of the event.

Alterations in cognition and mood, this category

is somewhat similar to the intrusive category, and they certainly affect each other but it is important to separate them, at least for the purposes of learning. This category can include negative feelings about the self or the world, trouble remembering or "blacking out" events of the trauma, and feelings of guilt or blame among others.

Finally we have the alterations in arousal and activity. This category, combined with intrusion makes up the stereotypical depiction of PTSD in media, largely because these together are the most "visible" symptoms. These alterations include but are not limited to having an exaggerated startle response, hypervigilance, angry outbursts with little or no provocation, and disturbances in sleep. It is an unfortunate fact that these symptoms can often lead to a sufferer being labeled as dangerous and/or unhinged. This is not entirely without merit, especially when combined with some of the intrusive symptoms such as flashbacks. This is however a label that gets exaggerated far beyond the reality and can do great harm both to the individual and is yet another factor that can reduce aid, both given and sought out.

So armed with the knowledge of PTSD's symptoms, it is not hard to imagine the effect it can have on an individual's day to day life. While individuals who have a less severe case of PTSD may experience little to no disruption of day to day life, or may only experience disruption occasionally, those who are unfortunate enough to develop severe cases can be subjected to extreme disruption. It is unfortunately common for an individual with PTSD to lose their source of income, housing, and/or family and friends as a direct result of the PTSD and their symptoms. PTSD is also the only anxiety disorder that is associated with a higher amount of suicide attempts than the general populace (Sareen et al.).

He has never been one to talk much, in fact his girlfriend once referred to him as the "strong silent type", a badge he wore with pride. He certainly isn't one to burden others with his own mental issues, his own traumatic memories. However, in this office, with its warm lighting and lightly aromatic air, it's different. He does his best to relax -something else he has been working on with his therapist- into the plush couch, he takes a deep breath as his thoughts and words drift back to his time overseas and all the things he did and saw there. An hour later he will walk out, back into the harsh light of day, feeling somehow lighter, unburdened.

A few weeks ago she was hopeless, the antidepressants her psychiatrist had prescribed had worked for a little while, but then the thoughts and memories came back, just as bad as before. No matter how bad she wanted to, she couldn't stop replaying it in her mind: the night of the car crash, the night her infant son died. She adjusts the eye mask and relaxes back into the reclined chair, the steady clicking of the pump next to her the only sound as it slowly pumps medication into the IV in her arm. Now it's different, as the Ketamine begins to take effect she thinks about that night again, just as she and her therapist discussed. The Ketamine allows her to think about it without immediately blaming and hating herself, gives her the chance to reframe her thinking, gives her the chance to finally heal.

Here is some good news about PTSD, for some people, especially those with less severe cases, the symptoms can fade with time. In some cases they can even disappear entirely, with time being the only factor. For many people, however, this does not happen, but luckily in the modern age PTSD is very treatable. The first line treatment used in most cases is cognitive behavioral therapy or CBT (Treatments for...). CBT is one of the most common

and well researched forms of psychotherapy and is used for a variety of disorders with great success. It involves taking a systematic approach and reframing thoughts, feelings and behaviors in a more positive way (Cognitive behavioral....). What these techniques target specifically depends on the patient themselves but they are all based on the idea that many of the symptoms of PTSD are "acquired" or learned thoughts and behaviors that can therefore be unlearned or changed to be more adaptive (Monson and Shnaider). CBT therapy is typically undergone in weekly sessions and can be anywhere from 5 to 20 weeks for a full course.

Another popular, if somewhat controversial, treatment is eye movement desensitization and reprocessing therapy, or EMDR. Unlike CBT the goal of this therapy is to change the individual's processing of the memory itself rather than the reaction to said memories. This is an eight step process that takes place over 2 to 3 sessions and involves the patients following a traveling light with their gaze that forces their eyes to mimic movements observed during REM sleep, which is thought to play an important part in our long-term memory formation (Shapiro)(Treatments for...).

The last treatments we will discuss involve medication, specifically SSRIs and Ketamine. In most cases the medication is used as an augment to more traditional talk therapy such as CBT, they are meant to help reduce symptoms on a day-to-day basis as the patient continues to "work through" the trauma with a therapist, they are not meant to be taken for the rest of the patient's life.

SSRIs, or selective serotonin reuptake inhibitors, are a class of medication commonly used as antidepressants (Chu et al.). Serotonin is a neurotransmitter that is thought to play a role in many mood and anxiety disorders, including PTSD. SSRIs work by preventing reuptake of serotonin by the presynaptic neuron, thereby providing more to be utilized by the postsynaptic neuron(Chu et al.). They are far and away the most researched medication for use in PTSD, and are generally quite successful in reducing symptoms (Bajor et al.)(Brady et al.). However these do take up to six weeks to show effects, and multiple changes or titrations in dose may be required both in the initial phase and throughout a patient's time taking them.

Ketamine on the other hand is an emerging treatment, with research just beginning in earnest, at least for PTSD. It has been used successfully for a number of years in treating depression. This process is typically done at a clinic or infusion center and usually takes six weekly visits to complete, however patients typically start showing improvement after only one or two sessions. Before the first session a patient will meet with their therapist to discuss goals for the session, essentially what they will visualize and attempt to work through when dissociated, or "tripping". Then a thorough intake and interview will be done by a NP or MD at the clinic to ensure that they agree with the necessity and that there are no contraindications. Following that, the patient will begin receiving infusions. The ketamine is infused over at least 40 minutes, during which time the patient will be relaxing in a recliner with headphones and/or an eye mask on to block out external stimuli, if they wish. Patients can undergo psychotherapy during the infusion, but due to the dissociative and hallucinogenic effects this is usually not very effective. The patient is monitored at all times during the infusion, and it is recommended that the patient have someone else drive them to and from the session. In between receiving infusions, the patient will meet again with their therapist to process and "integrate" whatever came up during their "trip" (Rice).

Ketamine does carry with it the risk of a "bad trip" but that is also, in some ways, the point of the infusion, to bring to light the memories and traumas in a place where the patient is completely safe. Because they are dissociated, the patient should not

experience many of the symptoms that typically emerge when confronting these memories. Before infusions begin, the patient's therapist will also practice grounding techniques with the patient, these can help to "bring the patient back to reality" and remind them that they are in a safe place should the trip cause anxiety (Rice).

It is still not totally understood how or why ketamine has been so helpful with both PTSD and depression, however one leading theory is that it provides a marked and rapid boost to neuroplasticity and synaptogenesis (Wu et al.) essentially rewiring the brain in relation to the memories and traumas thought about during the session. However, despite the fact that we don't yet know how, we do know that it has proved effective in many cases, especially those that are resistant to SSRIs (Feder et al.)(Bajor et al.)

After being discharged from the U.S. Army in 1945, Audie Murphy (the most decorated soldier of both WW2 and U.S. history) did not have many resources to help him with what was then called battle fatigue or shell shock, nor did many of his brothers returning home after Vietnam or Korea. Unfortunately many of them, including Murphy himself, turned to self medicating with drugs and/or alcohol. Many of them would lose this second, more personal war and commit suicide. These same facts ring true for the many women throughout history who have dealt with memories of past abuse or rape. It is also true of the many individuals who experience or witnessed an event so traumatic as to leave a permanent scar on their psyche. However, this is no longer the case, in the modern world PTSD is one mental demon that we are beginning to understand, and more importantly, learn how to fight.

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