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Letter from the Editors

The *Journal of Military and Government Counseling* (JMGC) is an official publication of the Military and Government Counseling Association (MGCA), a division of the American Counseling Association. The mission of the journal is to promote reflection and to encourage, develop, facilitate, and promote professional development for administrators, counselors, and educators working with all members of the Armed Services and their families, whether active duty, guard, reserve, retired, or veteran; civilian employees of the Department of Defense; first responders including EMS, law enforcement, fire, and emergency dispatch personnel; and employees of Local, State and Federal governmental agencies.

Welcome to the latest edition of the JMGC. Starting with this issue we will be expanding the JMGC's offerings to include more and deeper conversations that will help clinicians to better understand and work with military and first responder personnel. We hope to expand our professional perspectives so we can better understand how to work with and support these populations, their families, and their communities. We intend to include perspectives that you may not expect, but that may (re)open our clinical eyes to the many perspectives that can be included in this area of professional work.

So, keep those manuscript submissions coming in and contact us if you are interested in being a reviewer for the JMGC. As always, thank you for the work you do in support of our military, first responder and emergency service personnel, and those that work in and with government agencies.

The procedure for submitting articles is available at JMGC Guidelines for Authors (https://trojan.troy.edu/education/counseling-rehabilitation-interpreter-training/jmgc/index.html) and the contact email is JMGCEditor@troy.edu.

The JMGC Editorial Team

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PTSD and Moral Injury in Clint Eastwood's *Flags of Our Fathers* and *Gran Torino*

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Depictions of combat-related trauma in American motion pictures are often criticized as being over-simplified or stereotypical. Films that focus on the causes and symptoms of trauma may add to the stigmatization of mental health surrounding combat veterans and may affect the image of real-life treatment options. The differences between post-traumatic stress disorder and moral injury have not only been obscured in cinematic texts, but also in clinical practice. Relatively recent films by director Clint Eastwood present opportunities for discerning between the two conditions. This paper offers a discussion of PTSD and moral injury in two Eastwood combat films, *Flags of Our Fathers* and *Gran Torino*. Clinical considerations and recommendations for counselors, service people, and filmmakers are also offered.

Keywords: PTSD, moral injury, motion pictures, counseling, military

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American films have offered audiences depictions of war and warriors since the inception of the medium in the late 1800's. Feature-length fiction narratives, documentaries, and wartime newsreels have presented the U.S. public with accounts of combat, defeat, victory, reintegration, and the return home. Whether propaganda, cautionary tales, or morality plays, American combat films have long occupied the

imaginations of moviegoers, and their influence can be seen in a wide array of cultural texts – from video games to military recruiting materials. Alongside the heroic portrayals of triumphant warriors, American filmmakers have painted compelling portraits of the mental and emotional suffering that can accompany the combat, coming home, and reintegration experiences. The extent to which these portrayals accurately reflect the real life experiences of traumatized military personnel is unclear and controversial (Kauffman, 2016).

Moreover, cinematic representations of combat trauma sufferers have been regularly criticized for their reliance on negative stereotypes and harmful exaggerations (Kauffman, 2016; Phillips, 2015; Satel & McNally, 2013). Many filmic combat veterans have been presented as homicidal, suicidal, anti-social, psychotic, or vigilante characters that present a danger to themselves and to society in general – especially if they appear to suffer from a trauma condition like PTSD (e.g. *Taxi Driver*, *Brothers*, *Rambo: First Blood*, *The Deer Hunter*, *Coming Home*, *Jacob's Ladder*). Recently, such reductive characterizations have dwindled as more nuanced and sympathetic representations have become common (*In the Valley of Elah*, *The Hurt Locker*, *Flags of Our Fathers*, *Saving Private Ryan*). However, clinicians, filmmakers, the general public, and clients need more education and clarification on how the realities and treatment of these conditions differ from cinematic presentations. Further, more clarity on the topic may provide clinicians with opportunities to use cinematic texts in treatment and educational settings – both as realistic examples, and as erroneous ones. For trauma and moral-based injuries, effective treatment is usually only possible with correct diagnosis, and the ability to differentiate between the various types of trauma-induced disorders – as presented both in real life and on screen – is a key capability for practitioners and veteran communities (Dombo, Gray, & Early, 2013; Drescher & Foy, 2008).

This paper presents a brief introduction to the existing literature on moral injury among combat veterans, and how it differs from PTSD. It also offers an exploration of the various presentations of morally injurious experiences (MIEs) and PTSD in two of director Clint Eastwood's films: *Gran Torino* (2008), and *Flags of Our Fathers* (2006), followed by a

discussion of the differences between the film's depictions and real-life therapeutic considerations. Recommendations for filmmakers, counselors, and the general public on confronting cinematic portrayals of combat-related trauma are also included.

PTSD and Moral Injury in Film

Much of the academic literature on these "shell shock," PTSD, or "coming home" films explores portrayals of psychologically and emotionally wounded military personnel (Gates, 2005; Muruzabal, 2008; Shewring, 2004) and documents the various ways such films portray the causes and effects of combat-related trauma (Hankir & Agius, 2012; Katafias, 2015; Pinchevski, 2016; Safran, 2001). Since the Vietnam War era, several combat-themed films have explicitly addressed wartime trauma and mental illness, and scholars have provided extensive commentary and analysis from a number of perspectives (Brady, 2015; Cardullo, 2011; Hoelbling, 2014; Katzman, 1993; Maseda & Dulin, 2012; Noreen, 2004; Shay, 2002; Chapin, Mendoza-Burcham, & Pierce, 2017). However, to date, relatively little has been written about the distinctions between trauma-induced stress disorders like post-traumatic stress disorder (PTSD), moral injury, and morally injurious experiences (MIEs) as presented in war and "coming home" films.

Yet, the recent work of filmmaker Clint Eastwood has spurred new discussions of both combat-related and civilian trauma (Hamilton & Redmon, 2017), and some authors have addressed the appearance of moral injury and PTSD in his films directly. Most notably, Brown & Westbrook (2018), provide a seminal discussion on the portrayal of moral injury in several of Eastwood's films, including *Gran Torino*, *Flags of Our Fathers*, and *Heartbreak Ridge* (1986). Other manuscripts include Scott's (2017) examination of delayed combat trauma and MIEs surrounding the main character in Clint Eastwood's *Gran Torino*. Similarly, Brown and Westbrook (2017) explore the exacerbation of moral injury among soldier characters in *Flags of Our Fathers*, and Gjelsvik (2013) discusses how the moral and ethical dimensions of killing in combat are confronted in that film and previous American combat films.

Manm (2013) examines how the unique narrative structure and discontinuous editing of *Flags of Our Fathers* reinforces the impression that the main characters' past experiences continually haunt the present realities – a phenomenon commonly observed in PTSD (Drescher & Foy, 2008). However, few of these projects have offered details on the clinically-relevant distinctions between MIEs and PTSD in Eastwood's combat films, nor have they explored the dissonance between reality and cinematic projections. Two of Eastwood's trauma films, *Flags of Our Fathers* and *Gran Torino*, provide opportunities for an analysis of the subtle differences between these two phenomena, as well as the difference between cinematic and real-life presentations and treatments of such disorders.

PTSD, Moral Injury, and Morally Injurious Experiences

Practical distinctions between PTSD and moral injury are fairly new. While PTSD has been formally recognized as a psychiatric disorder in the U.S. since 1980, the clinical literature on moral injury dates to 2009 (Litz et al., 2009). Morally injurious experiences (MIEs) are often understood as combat-related events that may cause moral injury. However, the terms, MIE and moral injury are used interchangeably (Lancaster & Harris, 2018). PTSD has been recognized as a phenomenon for centuries, but when the American Psychiatric Association included it in the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) in 1980, the treatment and scientific communities had a codified disorder, rather than a loose set of symptoms, to both study and address (see Appendix). Treatment for PTSD remains difficult, and a number of interventions have been recommended and tested (McLean, et. al., 2018; Schmuldt, et. al., 2013; Wilson, Friedman, & Lindy, 2012), and specific treatments for PTSD associated with moral injury are being investigated (Held, Klassen, Brennan, & Zalta, 2017). However, the scientific research on moral injury and MIEs is still emerging, and moral injury is widely considered a theoretical construct, not an official diagnosis (Litz et al., 2009; Maguen & Litz, 2012).

While many of the symptoms of the two conditions overlap, the crucial differences between PTSD and moral injury are gaining attention

(Drescher, et. al., 2011; Koenig, 2018). PTSD is defined as a stress-related psychiatric disorder caused by a single or several traumatic events that causes the sufferer to experience a number of troublesome symptoms, including "intrusive recollections, avoidant/numbing symptoms, and hyper-arousal symptoms" (Friedman, p. 1). Moral injury is defined as a condition that arises from "an act of serious transgression that leads to serious inner conflict because the experience is at odds with core ethical and moral beliefs" (Maguen & Litz, 2012, p. 1). Symptoms include shame, guilt, self-handicapping behaviors, self-harm, withdrawal, and self-condemnation (see Appendix). Some researchers and clinicians maintain that effective treatment of both disorders may require recognition of the distinctions between them, and that the usual treatments for PTSD may not always be effective for the treatment of moral injury (Maguen & Litz, 2012). In fact, moral injuries and MIEs may exacerbate existing PTSD symptoms and complicate treatment for sufferers. (Currier, Holland, & Malott, 2015). Recognizing the distinctions between the two may help providers, researchers, clinicians, and sufferers improve treatment outcomes for suffering veterans. Further, understanding these distinctions may assist filmmakers and other storytellers in constructing realistic renditions.

The Films

The Clint Eastwood films selected for analysis and discussion are *Gran Torino* and *Flags of Our Fathers. Gran Torino* was released in 2008, winning several awards, an enthusiastic foreign and domestic reception, and a profit of nearly $120 million. The film follows the late life journey of Walt Kowalski (played by the director), a Korean War veteran who retired from a large American auto plant and settled into a now declining Detroit suburb. *Flags of Our Fathers* (2006) had a higher production budget than *Gran Torino* and grossed only $65 million, but it was well received by audiences and critics alike. Based on a popular non-fiction book, the film presents the real life story of the soldiers who raised the battle flag on Iwo Jima in World War II and were captured in an iconic photograph.

These films were chosen for three reasons. First, both feature combat service people as main characters who display behaviors associated

with moral injury and PTSD. Second, while recent scholarship has focused on these particular cinematic portrayals of combat trauma (Brown & Westbrook, 2018; Gjelsvik, 2013; Manm, 2013; Scott, 2017), there is currently no published research on these two films from a counseling point of view. Third, since these films are relatively recent, successful, and award-winning productions by a famous filmmaker, the films may be more accessible to members of the general public, counselors, and clinical populations than older or lesser known titles. For this paper, the two films were repeatedly viewed and specific scenes and actions that contained depictions of traumatic events, trauma-induced behaviors, and dialogue were identified. Using criteria for symptoms and causes of moral injury established by Litz et al., (2009), and PTSD symptom clusters as identified by the U.S. Department of Veterans Affairs National Center for PTSD and the Mayo Clinic (see Appendix), three of the films' main characters were considered to be suffering from one of the two conditions. A detailed analysis of several selected scenes and a discussion of their apparent symptoms follows.

Gran Torino

When Walt Kowalski first appears in *Gran Torino*, his wife has just passed away, and the elderly retiree is left alone. His few social contacts consist of his ungrateful sons and their spoiled children, the local priest, his dog, and a few drinking buddies at the VFW hall. Within the first few scenes, Walt begins to present behaviors that align with most of the criteria associated with moral injury: shame, guilt, self-handicapping behaviors, self-harm, withdrawal, and self-condemnation (Drescher & Foy, 2008; Litz et al., 2009). Early in the film, a Catholic priest who delivered the eulogy for Walt's wife, Father Janovich (Father J.), appears in the VFW hall where Walt is drinking with a few other men. After a few friendly barbs with the group, the priest asks Walt to join him at a nearby table for a chat. Having promised Walt's wife that he would look out for Walt after she passed, Father J. now pressures Walt to go to confession as per the wife's dying wishes. Walt mocks the young priest's nascent experience, and then makes a type of confession after Father J. asks him what he knows about death.

> Walt: *I know a lot. I lived for almost three years in Korea with it. We shot men. Stabbed them with bayonets, hacked 17 year-olds to death with shovels. Stuff I'll remember till the day I die. Horrible things, but things I'll live with* (Eastwood, 2008).

Walt recounts his wartime experiences with a sense of shame and guilt, and laments the "horrible things" he still carries (Eastwood, 2008). Although he appears to be proud of his service, the moral revulsion he expresses when recounting these actions is palpable. After this monologue, the priest presses him about his knowledge of life. Walt can only muster two things: that he survived the war, and that he created and sustained a family. He then admits that he might know more about death than life.

Walt's struggle with the regret that accompanies his shame and guilt is again on display just a few scenes later. Father J. comes to his house after hearing about the attempted theft of Walt's Gran Torino and the elder veteran's fruitless attempt to punish the would-be thief. Father J. is angry that Walt didn't call the police and that he tried to shoot the burglar with his old service rifle. The two argue briefly over the incident, and Father J. makes another attempt at getting Walt to confess.

> Father J: *I've been thinking about our conversation on life and death. About what you said. About how you carry around all the horrible things you were forced to do…horrible things that won't leave you. It seems it would do you good to unload some of that burden. Things done during war are terrible. Being ordered to kill. Killing to save yourself. Killing to save others* (Eastwood, 2008).

Father J. continues his diatribe, invoking the redemptive and healing power of confession and forgiveness, saying that men who have "admitted their guilt" are relieved of their burdens. He says that even men who have done "appalling things" are now at peace (Eastwood, 2008). Walt's response attests to the intrusive and abiding nature of his own guilt and shame:

> Walt: *And you're right about one thing: about stronger men than me reaching their salvation. Well, halle-fucking-lujah. But you're wrong about something else.*
> Father J: *What's that, Mr. Kowalski?*
> Walt: *The thing that haunts a man the most is what he isn't ordered to do* (Eastwood, 2008).

Here, Walt sets himself apart from the combat veterans who were able to attain absolution for their wartime "sins." He suggests that he is different; that his self-directed, voluntary brutality has outpaced even divine forgiveness. The implication that he performed acts of savagery beyond the orders of his superiors – that he killed and maimed even when not ordered to do so – reflects not only significant guilt, but also another symptom of moral injury: self-condemnation (Litz et al., 2009). Walt later provides further indications of his denigrating self-assessment.

As the film progresses, Walt is slowly drawn out of his self-imposed isolation and withdrawal through his friendship with the Hmong family that lives next door. After saving the young Hmong man (Thao) from a certain beating and possibly death at the hands of the local gang, and the teen girl (Sue) from a few street punks, the neighbors shower him with gifts of food and flowers. When Sue invites him to a Hmong party on his birthday, Walt attends just for the beer and food, but is drawn deeper into the family when the resident shaman, Kor Khue, "reads" him at the party. At one point during the reading, the shaman tells Walt that he "made a mistake in your past life, like a mistake that you did…you're not satisfied with" (Eastwood, 2008). As Kor Khue finishes his reading, Walt looks shaken. He gets up from his chair, walks out of the room and into the dining room where he watches the Hmong women serve each other tea. A bit ashen, and with a fearful look on his face, Walt begins to cough. When Sue asks him if he's all right, she notices that he's coughing up blood. Walt then runs up the stairs and lurches into the bathroom where he coughs into the sink. His response to the shaman's reading and the mention of the "past mistake" may be a psychosomatic reaction caused by his feelings of shame and/or guilt. Perhaps Kor Khue's reference to a "mistake…that he did" in a past life stirred memories of Walt's violent actions in Korea, suddenly

making him feel sick (Eastwood, 2008). In fact, Walt's long-term self-condemnation could have significantly contributed to a chronic illness. This kind of physiological reaction and the detrimental long-term health outcomes that accompany it is common among traumatized veterans who struggle with reintegration (Kaplan, 1997; Worthington & Langberg, 2012).

As the film enters the third act, Walt's friendship with Sue and Thao continues to deepen, and by the ninety-minute mark, they are all together at Walt's house, picnicking while Walt happily drinks beer. As Thao washes the beloved Gran Torino in the background, Sue recounts all of the good things that Walt has done for her and her brother, closing with a firm statement.

Sue: [about Thao] *You like him don't you?*
Walt: *Are you kidding? He tried to steal my car.*
Sue: *Uh-huh, and you spend time with him, teach him how to fix things, saved him from that fucked cousin of ours…*
Walt: *Hey! Watch your language, lady.*
Sue: *And you're a good man.*
Walt: *I'm not a good man* (Eastwood, 2008).

Walt then quickly changes the subject, looking down uncomfortably at his empty beer. Although he does not refute or deny any of the other accounts of his generous actions, he will not admit that he is a good man. This scene underscores the self-condemnation and shame that accompanies Walt's moral injuries. He forgave Thao for trying to steal his car, taught him how to do construction work, and got him a job. But it's not enough. Just as he believes that he is beyond forgiveness by God, he is so ashamed of what he's done in the past that he cannot accept that his young friend and her brother see him as intrinsically good.

Later in the film, Sue is raped and beaten by the Hmong gang and Walt, Father J. and Thao struggle with their response. Thao is bent on revenge and begs Walt to join him in finding and killing the rapists. Walt tells Father J. that he will "think of something," and that the gangsters "won't have a chance" (Eastwood, 2008). When Thao confronts Walt about his lack of action, Walt urges him to stay calm, saying that without calm, "mistakes get made" (Eastwood, 2008). Perhaps Walt is alluding to his

mistakes in combat – those things that haunt him. Thao wants revenge right away, but Walt forces him to sit and wait for a well-developed plan.

> Thao: *I say we go now. Right now.*
>
> Walt: *And what? Kill that cousin of yours and the rest of those zips? Mr. Tough Guy out for blood all of a sudden? You know nothing about it* (Eastwood, 2008).

Walt clearly does not want to kill again, but he admits that neither Thao nor Sue will have true peace until the gangsters are "gone forever" (Eastwood, 2008). Walt then goes to work on a kind of "bucket list." He takes a bath, gets a haircut, smokes in the house (instead of on the porch), gets the first shave of his life with a straight razor, mows the lawn, gets his suit fitted by a tailor, and goes to Father J. for the long-awaited confession where he admits to a few peccadillos but says nothing about the war. Walt's true confession comes in the next scene as he gives Thao his Silver Star medal in the basement while telling him the story of the action that earned him the recognition.

> Thao: *How many men did you kill in Korea?*
>
> Walt: *Thirteen. Maybe more.*
>
> Thao: *What was it like to kill a man?*
>
> Walt: *You don't want to know* (Eastwood, 2008).

Walt then tricks the boy and locks him in the basement so that he can't accompany Walt on his mission. Here, we get the full account of the incident that caused Walt's moral injury.

> Walt: *You wanna know what it's like to kill a man? Well it's goddamn awful, that's what it is. The only thing worse is getting a medal of valor for killing some poor kid that just wanted to give up, that's all. Yeah, some scared little gook just like you. I shot him right in the face with that rifle you were holding in there a while ago. Not a day goes by that I don't think about it, and you don't want that on your soul. Now I got blood on my hands. I'm soiled* (Eastwood, 2008).

In this scene, Walt's language aligns with the many of the symptoms of moral injury and contributing factors in MIEs. He is ashamed and feels guilty not only for killing, but also for being rewarded for doing

so (Drescher et al., 2011). He continues to condemn himself – he is permanently soiled and has blood on his hands (Shay, 2002). He is beyond repair as he has violated a number of social conventions (Nash & Litz, 2013). Additionally, his injury may be made worse by the fact that he feels betrayed by himself, his commanding officers, and the civilians who sanctioned the war (Lancaster & Harris, 2018). For Walt, the military and government that he so proudly served has transgressed an intrinsic moral standard by asking him to kill a "poor kid that just wanted to give up," and they rewarded him for killing thirteen or more men (Eastwood, 2008). Furthermore, his guilt might be complicated by the fear that he may have violated the military rules of engagement and the Geneva Conventions by shooting an enemy combatant after they had surrendered (Osiel, 1998).

Here and earlier in the film, Walt is making reference to another common cause of moral injury: disproportionate violence and mistreatment of enemy combatants. Both of these can contribute to the spiritual discomfort that so often accompanies moral injury (Litz et al., 2009). Given the depth of his injury, it seems to be relatively easy for Walt to sacrifice himself for Sue and Thao. His feels his soul is sick. He has blood on his hands, and he may believe that he will receive absolution in death. He also knows that he has some kind of serious physical illness, and is perhaps in his last days. It's understood that he feels that his death will not only free his two young friends from their oppressors (by putting the gang in prison for murdering him), but that it will also free him from further psychic pain in this life and perhaps "karmic" debt in the next. To complete his plan, Walt goes to the gangster's house and confronts them in the front yard. The young men draw and aim their weapons at him from inside the house. A tense, brief standoff follows. As Walt reaches inside his jacket, they shoot him several times. The camera reveals Walt was unarmed, and was only carrying a cigarette lighter emblazoned with a military insignia. Walt intentionally baited the gangsters into killing him so that they would go to prison for several years for shooting an unarmed man. This kind of self-harm and parasuicidal behavior is closely associated with moral injury (Litz et al., 2009).

While Walt easily meets all of the criteria for moral injury, he does not fit as easily into the PTSD construct, which requires him to present symptoms in several symptom clusters: intrusive memories, avoidance, negative changes in thinking and mood, and changes in emotional reactions (Friedman, 2015). The viewer does not see Walt experiencing recurrent, unwanted distressing memories of the traumatic event, or reliving the event as if it is happening again. We don't see Walt exhibiting symptoms of avoidance. In fact, he speaks often about his experiences in Korea, and readily expresses them to Father J. He does not avoid talking about even the most grotesque events and still has his rifle and medal. Walt obviously exhibits negative thinking and negative moods; he is a racist curmudgeon who has difficulty maintaining close relationships. But, the viewer does not know if these are part of his personality, or if they are a result of the wartime trauma he experienced over 40 years ago. Similarly, his irritability, anger, hyper vigilance, and regular drinking may or may not be as a result of his traumatic wartime experiences. If the viewer were presented with more information about his pre-war behavior, they could make a better determination as to whether or not Walt experiences classic PTSD. However, all of the available evidence points to a significant moral injury in his time in Korea – one that followed him to his self-prescribed demise (Brown & Westbrook, 2017).

Flags of Our Fathers

In *Flags of Our Fathers*, the two main characters exhibit a myriad of symptoms that are associated with PTSD after their battlefield experiences on the island of Iwo Jima during the Pacific conflict of World War II. Doc (a Navy medic) and Ira (a Marine infantryman) present behaviors that easily meet the four clusters associated with a diagnosis of PTSD: intrusive memories, avoidance, negative changes in thinking and mood, and changes in emotional reactions/hyperarousal (Friedman, 2015). However, only Ira seems to have sustained a significant moral injury. While Doc presents none of the moral injury *symptoms*, we do see him experience three of the four *causes* of an MIE. Ira exhibits nearly all of the symptoms, and experiences three of the causes. The film provides a convincing

depiction of "classic" PTSD behavior in both of these two characters, and makes extensive use of filmic techniques to approximate the subjective experiences of those who suffer from the disorder.

Doc exhibits behaviors that meet all four PTSD symptom clusters. When we first see him, he is on the Iwo Jima battlefield, searching for a wounded soldier who cries out for a medic. Then we cut to Doc as an old man, waking from the dream, in his bed with his wife. This is the first indication that the elder Doc still suffers from the trauma of the battle he fought decades before. When the elder Doc wakes, he looks terrified, and his wife has to comfort him before he can lie back down on the bed. This is a classic PTSD symptom that is often featured in combat and post-combat films (Safran, 2001). PTSD often causes sufferers to have recurrent, upsetting dreams about the traumatic event, and they can persist for a lifetime (Friedman, 2015). Both Doc and Ira also appear to experience flashbacks several times throughout the film. The filmmakers make frequent use of "smash cuts" and "split edits" to both smooth the transitions between the battlefield past and the stateside present, and also to provide the impression that the characters are reliving their past traumatic experiences in the present. These transitions provide jarring juxtapositions between the horrors of the island and the relative banality of the war bond fundraising campaign. They also effectively approximate the psychic phenomenon of flashbacks or intrusive memories (Manm, 2013; Potzsch, 2013), and the tendency of many PTSD sufferers to exist mentally in both places simultaneously – the past and present frequently blend together in dreams and waking life (Brewin, 2015).

Doc also exhibits behaviors that fall into the avoidance symptom cluster. Late in the film, Doc's son recounts his father's life in a voice over. In the sequence, the son is writing about his father, rooting through his war memorabilia, visiting the dying man in the hospital, and having dinner with his father when he was a child. Here, the audience learns that Doc never spoke about the war, and when his wife asked him what was troubling him, he refused to say. He refused to talk about it with the person who was closest to him. This kind of avoidance is very common among combat veterans with PTSD (Atkinson, 2006). However, it is the one PTSD

symptom cluster that we do not see Ira exhibit. Like Walt in *Gran Torino*, He doesn't seem to hesitate when speaking about what happened on the island. In fact, he often speaks about the battle, the flag raising, and the deaths of his comrades.

In addition to intrusive memories and avoidance, Ira and Doc both present symptoms from the third and fourth PTSD symptom clusters: negative changes in thinking and mood, and changes in emotional reactions/hyperarousal (Friedman, 2015). However, in these two categories, Ira's symptoms are more intense and numerous. While Doc had difficulty maintaining close relationships with his family, trouble sleeping, and survivor's guilt, Ira exhibited almost all of the symptoms listed in cluster three and four: negative feelings about himself and others, inability to experience positive emotions, hopelessness about the future, lack of interest in activities he once enjoyed, irritability, angry outbursts, aggressive behavior, overwhelming guilt or shame, and self-destructive behavior like drinking too much. Ira's symptoms manifest themselves most clearly when he reluctantly returns to the states for the war bond tour. He's frequently drunk, he has intrusive flashbacks to the battle, he gets angry and violent when he is refused a drink at a bar, he threatens a comrade with a knife, he has an emotional breakdown in public when he meets Mike's mother (Ira saw Mike get killed on the island), and he speaks of feeling ashamed of himself.

While Ira and Doc both exhibit classic PTSD symptoms in all four clusters, Ira alone displays several of the symptoms of moral injury, including shame, guilt, demoralization, self-handicapping behaviors, and self-harm. After Ira is fired from the war bond campaign for excessive drinking, he prepares to be shipped back into battle. In an unusually candid conversation with his commanding officer, he verbalizes the extent of his guilt and shame and how it affected his ability to stay with the tour.

> Ira: *It's a good thing, raising the money and that, 'cause we need it. But, I can't take them calling me a hero. All I did was try not to get shot. Some of the things I saw done. Things I did, they weren't things to be proud of, you know?* (Eastwood, 2006).

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Ira is caught in what has become an archetypal paradox for combat soldiers. While he is ashamed of the wartime brutalities he witnessed, he retains his patriotic spirit and love for his fellow soldiers (Shay, 2002). His guilt is complex. He is ashamed of himself for participating and witnessing the transgressions. He's ashamed that he survived and Mike did not, and he's ashamed of who he has become.

> Ira: *He [Mike] was a good guy. But I think he would be ashamed of me, seeing me the way I am* (Eastwood, 2006).

Ira is demoralized by the experience of the battles and the war bond campaign, and he copes by engaging in a common self-handicapping behavior. He drinks heavily and often, sabotaging his military career, any chance for promotion, and any future maritime avocation by damaging relationships with friends, civilians, and superiors. His self-destructive efforts are rewarded with a punitive trip back to the front lines.

Both characters experience three of the four common causes of moral injury: betrayal, disproportionate violence, and within-rank violence. The incident of betrayal can take many shapes; one may feel betrayed by one's peers, leaders, or society in general. Additionally, an individual may feel that they have failed to meet their own moral standards, and have betrayed their own conscience (Litz et al., 2009). After being enlisted to headline the war bond tour as the group of men who raised the flag in the iconic Iwo Jima photo, Ira and Doc bristle at the specious nature of their representation as heroes. Although they raised a flag on the island, the purported staging of the event was controversial – a complication that could have been obfuscated by the military brass and ignored by President Roosevelt's administration in an effort to take advantage of a lucrative public relations opportunity. Although they are obedient and patriotic soldiers, Ira and Doc see this glossy war bond campaign and its adoration of "false heroes" as a betrayal of the combat dead. One example comes two hours into the film, when Ira and Doc view the papier-mâché Mt. Suribachi that they are to climb that evening in a public re-creation of the flag raising. They are disgusted when they are instructed to climb the prop to plant the flag and to "pretend the other three guys are with you." The spectacle is too

much for Ira, who calls it "bullshit," and storms off to get drunk (Eastwood, 2006).

Ira and Doc also experienced disproportionate violence on Iwo Jima. In one poignant flashback sequence, Ira and Mike confront three Japanese soldiers who had snuck into a Marine foxhole and stabbed several G.I.'s. Mike and Ira shoot and kill all but one of the attackers, and Mike kills the remaining living combatant with the butt of his rifle. But he doesn't stop there. Ira watches in horror as Mike furiously and repeatedly stabs one of the dead bodies. In a later flashback sequence, Doc is led to Iggy's remains by a soldier who says the unidentified body was so disfigured that he "had to go outside to throw up" because of "what they did to the poor son of a bitch" (Eastwood, 2006). Iggy, one of Doc's closest pals, had been captured by the Japanese in the fighting the night before, and as we see Doc viewing what's left, we know Iggy was tortured and mutilated. Earlier in the film, we watch as Doc and Ira discover the bodies of Japanese soldiers who had used grenades to kill themselves, rather than be captured or defeated by the Americans. The moral injury literature is not clear as to whether combatant suicide meets the criteria for disproportionate violence (Drescher et al., 2011), but one could make an argument that the use of grenades may constitute excessive violence to the self. In any case, Ira is obviously mystified and traumatized by the sight.

Within-rank violence can take many forms. Whether it's sexual trauma, rape, fragging (where a fellow soldier is murdered by his comrades in an apparent accident), or friendly fire, the incident can cause soldiers considerable grief (Maguen & Litz, 2012). This kind of violence is especially transgressive and traumatic as the universal military ethos is to protect one's comrades at all costs (Shay, 2002). Late in the film, an American artillery shell that was called in to dislodge a Japanese machine gun nest mortally wounds Mike. The shelling is a major disruption to the squad. It allows the enemy to regroup and prevents Mike from getting triage in time to save his life. By the time Doc arrives it's too late, and he and Ira watch their leader and seemingly invincible friend die from American fire.

Discussion and Recommendations

Whether someone is dealing with PTSD, moral injury or both, a common denominator is often toxic shame (Ogden & Fisher, 2015). Guilt informs humans that they have done something wrong and correction is needed. Shame communicates to people that they themselves are wrong, bad or tragically flawed and that no correction is possible. Toxic shame prevents healing and personal forgiveness on any level (Bradshaw, 2005). An issue that may need to be addressed with military and veteran populations is not just witnessing or hearing about the death of someone the client cared about, but also the guilt and shame that arise from having killed or maimed others (Drescher & Foy, 2008). As with Ira in *Flags of Our Fathers* and Walt in *Gran Torino*, real life soldiers may find themselves forced to engage in behavior that is against their personal moral code, or in conflict with the circumstances under which they believed that they would be killing others. Violent acts that soldiers may have engaged during war can complicate shame. Context is everything, and many times service members ignore this fact when they harshly judge themselves regarding previous decisions made while in theater and during war times. This could be partly due to high expectations associated with their occupation:

> First responders and veterans are similar in being willing to face danger in order to protect and save others. While they give their all, they are often wracked with feelings of guilt and powerlessness. This is often because they demand themselves to be 100% successful 100% of the time, even when they cannot control 100% of the situation (Shapiro, 2012, pg.130).

In the films, the overwhelming guilt and shame presented by Walt, Ira, and Doc is very realistic and resembles that of real-life clients (Lee, Scragg, & Turner, 2001). Moreover, both films provide an accurate rendering of PTSD and moral injury for service members with trauma. However, the existence of real-world clinical treatment is often ignored in combat films altogether, and these two are no exception. In *Flags of Our Fathers*, the audience knows that Ira suffered from his untreated trauma until he died, young, alone, and intoxicated, while Doc functioned

successfully with his untreated condition until late in life. Similarly, in *Gran Torino*, we see that Walt actively avoids spiritual guidance and, ostensibly, professional treatment until his violent, self-planned death. Most of the time, veterans present for PTSD treatment many years after the traumatic event. Moreover, they are usually able to function daily with regular therapeutic assistance (Resick, Monson & Chard, 2006).

The disparity between reality and cinematic representations of these conditions (and their emotional, spiritual, and cognitive aspects) does not serve the general public and service members well. The tendency for filmmakers to exclusively portray the scope of the problem without illustrating what life may be like during and after treatment and recovery may discourage sufferers from obtaining treatment. Mental health practitioners, advocates, and service members should encourage filmmakers to assist in educating the general public as to what self-care and treatment look like in daily practice. Moreover, and even more important, such a cooperation between storytellers and clinical providers could inform the public about what protective and prophylactic steps individuals can take to possibly prevent the development of PSTD and moral injury altogether. (Litz et al., 2009; Shay, 2014).

One such protective step could be a widening of the public discussion on emotional hygiene. Emotional hygiene includes deliberately thinking about emotional health and staying in touch with your feelings (Winch, 2013). This can be challenging, even during peaceful and prosperous times in life. During times of perceived life failure, chronic loneliness and/or perceived rejection, this can feel insurmountable. Learning how to regularly do five things can help people not only prevent mental and emotional illness but also help expedite recovery should treatment or formal intervention be required or needed: 1. pay attention to emotional pain, 2. address pain before it becomes chronic or turns into maladaptive vicious cycles, 3. protect and foster self-esteem, 4. battle negative thinking, 5. become informed about emotional and psychological wounds (Winch, 2013). Discussions between filmmakers, service members, and mental health practitioners could focus on efforts to create greater awareness of the preventive aspects of emotional hygiene, as well as efforts

to reduce the stigma against mental health. Both public stigma and self-stigma is common among combat veterans (Dickstein, Vogt, Handa, & Litz, 2010), and may be made worse by some media portrayals (Ashley, 2016; Hardin, 2016). Too often, cinematic representations of military personnel in crisis do not portray the abundant and effective resources for treatment and training that are now available to real life service members (Maseda & Dulin, 2012; Safran, 2001; Schulze, 2007), and cinematic examples that run counter to stigmatized stereotypes could be useful in reducing self-stigma and public stigma surrounding mental illness among service members (Ben-Zeev, Corrigan, Britt, & Langford, 2012).

Another factor closely related to shame, and thus a complicating factor in PTSD and MIEs, is childhood trauma. Many service people and veterans alike have experienced early childhood trauma (Bremner, Southwick, Johnson, Yehuda, & Charney, 1993; Breslau, Chilcoat, Kessler, & Davis, 1999). Unfortunately, this can serve as a template for shame and self-hatred later in life. This is further confounded and complicated with the wartime experiences soldiers experience down range in the battle zone. Keys to understanding the roots of such accumulated, complex trauma can be found in the Adverse Childhood Experiences Study (ACE Study, 2014) – a massive, long-term research study on health outcomes conducted by Kaiser Permanente and the Centers for Disease Control and Prevention. Initiated in the late-1990's, the study has demonstrated an association of adverse childhood experiences (ACEs) - also known as childhood trauma - with health and social problems across the lifespan. The study is frequently cited as a landmark in epidemiological research (Felitti, 2002), and finds that adverse childhood experiences are common. For example, almost a third of study participants reported physical abuse and 21% reported sexual abuse. Many also reported experiencing a divorce or parental separation, or having a parent with a mental and/or substance use disorder (Felitti, 2002).

As researchers followed participants over time, they discovered that a person's cumulative ACEs score has a strong, graded relationship to numerous health, social, and behavioral problems throughout their lifespan, including substance use disorders. Furthermore, many problems related to ACEs tend to be comorbid, or co-occurring. The number of ACEs was

strongly associated with adulthood high-risk health behaviors such as smoking, alcohol and drug abuse, promiscuity, and severe obesity, and correlated with ill-health, including depression, heart disease, cancer, chronic lung disease, and shortened lifespan. The ACE results suggest that maltreatment and household dysfunction in childhood contribute to health problems decades later. These include chronic diseases—such as heart disease, cancer, stroke, and diabetes—that are the most common causes of death and disability in the United States (Leading Causes, 2017).

Thus, childhood trauma has been linked to subsequent combat-related PTSD and complicates psychological injuries inflicted during times of service for military personnel (Zaidi & Foy, 1994). Moreover, events and life experiences prior to combat experiences can undermine wellness and mental health among various populations in society (Felitti, 2002). This challenges some of the simplistic characterizations offered in these two films and many others. For example, the audience member does not know whether some of Walt's anti-social behavior and heavy drinking is the result of his battlefield trauma or other life experiences. Similarly, the differences between Doc and Ira's level of functioning – despite being exposed to the same traumatic events - are stark. Yet, the audience is led to understand that their post-deployment struggles are exclusively the result of their time on Iwo Jima. In order to be more realistic, future cinematic portrayals of traumatized military personnel could strive to acknowledge the various factors that contribute to PTSD and moral injury.

In all, both films provide a realistic portrayal of both combat-related trauma and the trauma of combat (Brown & Westbrook, 2017). But, like many other American war films, they neglect to depict the ability of traumatized service members to flourish and thrive upon receiving proper intervention and care (Monnet, 2016; Hardin, 2016). Many real-life combat veterans are able to replace helplessness and worthlessness with vision, purpose, meaning-making, and active coping (Litz et al., 2009). There is tremendous hope, but these films paint a dire picture. Part of this may be due to the fact that *Flags of Our Fathers* was based upon the experiences of real-life characters who served in the 1940's – a time when PTSD and moral injury were not as well understood as they are today. As these

servicemen were non-fictional, the filmmaker might have striven for fidelity in their characterizations, including the fact that their trauma remained untreated (Bradley & Powers, 2011). In the case of *Gran Torino*, the fictional Walt's grief, shame, and desperation are utilized as a plot device that allows for his dramatic self-sacrifice – and, ostensibly, a kind of salvation that accompanies his death. Thus, it can be hazardous for service members, clinicians, and civilians to base their understanding of combat-related trauma on fictional motion pictures and characters (Muruzabal, 2008; Phillips, 2015; Satel, 2013). Ultimately, filmmakers are attempting to entertain audiences with compelling, dramatic stories. And many times, high drama depends upon tragedy, suffering, and moral struggle (Plantinga, 2010).

In real life, treatments for trauma-related disorders are growing in number and effectiveness (Gallagher, 2017; O'Donovan & Neylan, 2017). Yet, counselors and researchers claim that complex cases of PTSD and moral injury continue to be a challenge and that more research is required (Kazlauskas, 2017; Pearce, Haynes, Rivera, & Koenig 2018). Litz et al. (2017) suggest that current interventions are lacking and new treatment interventions specific to moral injury are necessary. Common treatments for depression or PTSD have not been completely effective for moral injury, yet factors such as humility, gratitude, respect, and compassion have shown to either be protective or provide hope to affected service members (Litz et al., 2009). Although the differences between the two conditions are significant, the shame that many individuals face as a result of moral injury may predict symptoms of PTSD (Gaudet, Sowers, Nugent, & Boriskin, 2016). Moreover, shame and guilt are known to be highly correlated with each cluster of PTSD symptoms. (Cunningham, Davis, Wilson, & Resick, 2018; La Bash & Papa, 2014).

Although a definitive treatment for moral injury has yet to be found, it is hypothesized that the treatment of the underlying shame often associated with service-related PTSD symptoms is necessary (Litz et al., 2009). The tendency for shame to increase slowly over time can often make the identification of moral injury difficult – and early treatment is recommended. It has been shown that allowing feelings of shame to go

untreated can have disastrous effects. Shame has been linked to complications such as relationship violence, depression, and suicide. (Hendin & Haas, 1991; Litz, Lebowitz, Gray & Nash, 2016). A modified version of *cognitive behavioral therapy* (CBT) that addresses three key areas of moral injury: life-threatening trauma, traumatic loss, and moral injury has been hypothesized (Litz et al., 2016). While additional research is still recommended, these proposed treatments and protective factors provide counselors with a solid place to start.

Another goal for treatment of both disorders would include exploring the possibility for *post traumatic growth*. Post traumatic growth or *benefit finding* refers to the positive psychological change experienced as a result of adversity and may result in the attainment of a higher level of functioning (Litz et al., 2009). PTSD and Moral Injury represent significant challenges to the coping strategies of the individual and pose obstacles to understanding the world and their place in it. Post traumatic growth is not about returning to the same life experienced before a period of traumatic suffering. Rather, it is about undergoing significant life-altering changes in thinking and relating to the world. These shifts can contribute to a personal, deeply meaningful, process of change that can include freedom, joy, and peace (Russell & Figley, 2013). The beneficial outcomes realized through such treatments are not seen in these two films and are, unfortunately, exceedingly rare in "Hollywood" (Kauffman, 2016; Shewring, 2004).

The general public, filmmakers, and service members could benefit from a greater understanding of the various types of injuries that may result from combat, as well as the types of effective treatments available. To many Americans, recurrent cinematic depictions of combat-related angst easily fall into the general category of PTSD (Atkinson, 2006; Carruthers, 2008). Obscuring or ignoring the existence of moral injury and MIEs among returning combat veterans may be hazardous to these veterans, their commanders, and their civilian friends and families (Gibbons-Neff, 2015; Wood, 2014). A more careful and considerate viewing of the two phenomena and how they interact may provide clinical providers with greater insight into proper treatments. Furthermore, study of the distinctions between cinematic representations of these types of injures and reality may

provide clinicians in training with useful case studies that could assist in their detection and the development of useful diagnostic criteria. Furthermore, filmmakers, service members, and the general public would benefit from a greater knowledge of the effective treatments available to former and current combat personnel. The tendency of combat films to be hyper-violent, stereotypical, and pessimistic may obscure the real benefits possible through proper care and treatment. A thoughtful, ongoing dialogue between mental health providers, researchers, and filmmakers may help curb the stigma surrounding traumatized veterans and underscore the need for psychological and emotional hygiene in all sectors of service. Perhaps someday, American movie screens may be filled with more accurate representations of recovering service people and the professionals that treat them.

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Appendix

Four Clusters of Symptoms for PTSD: U.S. Department of Veterans Affairs, National Center for PTSD and the Mayo Clinic

1. Reliving the event
   - Recurrent, unwanted distressing memories of the traumatic event
   - Reliving the traumatic event as if it were happening again (flashbacks)
   - Upsetting dreams about the traumatic event
   - Severe emotional distress or physical reactions to something that reminds you of the event

2. Avoiding situations that remind you of the event
   - Trying to avoid thinking or talking about the traumatic event
   - Avoiding places, activities or people that remind you of the traumatic event

3. Negative changes in beliefs and feelings
   - Negative feelings about yourself or other people
   - Inability to experience positive emotions
   - Feeling emotionally numb
   - Lack of interest in activities you once enjoyed
   - Hopelessness about the future
   - Memory problems, including not remembering important aspects of the traumatic event
   - Difficulty maintaining close relationships

4. Hyperarousal

- Irritability; angry outbursts or aggressive behavior
- Always being on guard for danger
- Overwhelming guilt or shame
- Self-destructive behavior, such as drinking too much or driving too fast
- Trouble concentrating
- Trouble sleeping
- Being easily startled or frightened

Retrieved from https://www.mayoclinic.org/diseases-conditions/post-traumatic-stress-disorder/symptoms-causes/syc-20355967 and https://www.ptsd.va.gov/public/ptsd-overview/basics/symptoms_of_ptsd.asp

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Moral Injury: Symptoms and Causes
Litz et al., 2009

Symptoms:

- Shame
- Guilt
- Demoralization
- Self-handicapping behaviors (e.g., self-sabotaging relationships)
- Self-harm (e.g., parasuicidal behaviors)
- Anxiety about possible consequences
- Anger about betrayal-based moral injuries
- Anomie (e.g., alienation, purposelessness, and/or social instability caused by a breakdown in standards and values)
- Withdrawal and self-condemnation

Causes:

- Betrayal (e.g., leadership failures, betrayal by peers, failure to live up to one's own moral standards, betrayal by trusted civilians),
- Disproportionate violence (e.g., mistreatment of enemy combatants and acts of revenge),
- Incidents involving civilians (e.g., destruction of civilian property and assault)
- Within-rank violence (e.g., military sexual trauma, friendly fire, and fragging)

Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., & Maguen, S. (2009). Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. *Clinical psychology review*, *29*(8), 695-706.

"I Don't Want to be the Scared, Broken Bird": Processing Military Sexual Trauma Through Sandtray Therapy

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Military sexual trauma (MST) is a commonly occurring but infrequently discussed problem within the military system. Research shows that approximately 80% of MST goes unreported, leaving service members to cope with the trauma in isolation. The authors explore how the neurobiological effects of such trauma can reduce the effectiveness of traditional talk therapy, and instead pose the approach of sandtray therapy as a means for processing through events of military sexual trauma and reducing subsequent challenges such as symptoms of posttraumatic stress disorder, suicidal ideation, and a variety of relational difficulties. Instructions for a sandtray intervention and a case example are included.

Keywords: military sexual trauma, sandtray therapy, creativity in counseling

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Sexual harassment and assault have been present in the military for centuries, but have gained public recognition in the news media during the recent conflicts in Iraq and Afghanistan. Military sexual trauma (MST) is defined by federal law and the U.S. Armed Forces as a psychological trauma resulting from "a physical assault of a sexual nature, battery of a sexual nature, or sexual harassment which occurred while the veteran was serving on active duty, active duty for training, or inactive duty training" (U.S. Congress, 2014, Section 403).

Military Sexual Trauma

The Department of Defense estimated that approximately 26,000 individuals experienced an event of MST in 2012 (Farris, Schell, & Tanielian, 2013), but that most did not make a report. In fact, a 2011 report showed that approximately 80% to 90% of MST goes unreported (U.S Department of Defense). To help combat this phenomena, a two-tiered reporting system is in place. Restricted reporting allows the survivor to remain anonymous and receive medical attention without investigation of the report, while unrestricted reporting eliminates anonymity and enables the survivor to seek justice (Williams & Berstein, 2011).

When measured in 2014, 4.9% of military women and 1% of military men indicated having experienced some form of MST in the year prior, suggested that approximately 20,300 sexual assaults took place — however, only 23% of these were reported. This does reflect an increase in reports being made since 2012, but the Department of Defense continues to encourage increased reporting for such events (U.S. Department of Defense, 2015). However, military culture and lifestyle creates a challenging context for reporting this type of trauma. Unrestricted reports from 2012 show that 78% of reported MST have involved a service member being a survivor of sexual trauma, and 84% involved a service member perpetrator. Twenty-five percent of the reported perpetrators were in the survivor's chain of command (Farris et al., 2013), which creates a challenging context for reporting.

The military system creates a unique context for sexual trauma for two primary reasons: 1) the assault almost always occurs in the living and

working space of the survivor, typically with continued contact with the perpetrator; and 2) survivors often feel unable to report the assault because the perpetrator may be in a position of power over them, and also because making a report risks damaging the group cohesion necessary for successful unit functioning (Anderson & Suris, 2013). This parallels a similar circumstance to civilian experiences of sexual abuse by someone in the home (McElvaney, Greene, & Hogan, 2013). MST survivors have shared that primary reasons for not reporting the event include (a) they did not think it was serious enough to report, (b) they wanted to forget about it and move on, (c) they took other actions to handle the situation, (d) they were worried about retaliation by a supervisor or someone above them in power, (e) they did not think anything would be done about it, (f) they did not want more people to know about it, and (g) they felt partially to blame (U.S Department of Defense, 2015). The challenging environment in which the MST survivor often lives may leave them feeling isolated and unable to reach out for help, creating complex responses to the original trauma.

Consequences of MST

Symptoms of posttraumatic stress disorder (PTSD) have been found to be nine times more likely to manifest in female service members who are victims of MST than of female service members who do not have a history of sexual trauma (Street & Stafford, 2014). Additionally, sexual trauma during military service is known to heighten the risk of suicide attempt and completion (Kimerling, Makin-Byrd, Louzon, Ignacio, & McCarthy, 2016). While MST reports are significantly higher among women, those men who report are twice as likely to complete a suicide attempt (Kimerling et al., 2016). The Veterans Health Administration has taken numerous steps to provide support and care for those service members who have experienced MST, and the Department of Defense has established a zero-tolerance policy around sexual assault within the military (Farris et al., 2013; Kimerling et al., 2016). Unfortunately, the continued stigma around MST, and the fear of retribution by survivors, frequently prevents individuals from reporting, and subsequently seeking help.

Family members of those who have suffered MST are impacted by the trauma as well. PTSD symptoms may be apparent to both partners and children, and suicidality is known to have a devastating effect on the family. Additionally, physical touch and sexual intimacy may be very difficult for these service members, creating barriers within their relationships. Even understanding partners may become frustrated with the absence of physical intimacy, which can lead to other challenges within the relationship, such as resentment, emotional disconnection, and infidelity.

Common Approaches to Treating MST

The treatment of MST varies, as the understanding of this type of trauma and its unique context has emerged more recently. Due to the strong link between MST and PTSD, many mental health professionals approach these phenomena as they would approach PTSD (Johnson, Robinett, Smith, & Cardin, 2015). For example, many treatment centers have adopted use of trauma-focused cognitive-behavioral therapy (TF-CBT), dialectical behavioral therapy (DBT) with a focus on emotional regulation, and acceptance and commitment therapy (ACT), which are often used within treatment for PTSD (Johnson, et al., 2015). TF-CBT treatments are considered highly effective evidence-based treatments, and include exposure therapies, cognitive processing therapies, and eye-movement desensitization and reprocessing (EMDR) (Bisson et al., 2007; Cukor, Spitalnick, Difede, Rizzo, & Rothbaum, 2009; Johnson et al., 2015). Herman's (1997) trauma recovery model of safety, mourning, and reconnection is also widely cited for use in treating in MST (Hoyt, Rielage, & Williams, 2012; Johnson et al., 2015). The use of telemedicine has also been suggested to deliver services to clients in rural areas, who are not able to travel to a Veteran's Affairs center (Lutwak & Dill, 2013). While these treatments have unarguably demonstrated effectiveness in addressing PTSD symptomology, they are all treatment methods which require verbalization from the client. This need for verbalization in order to conduct treatment can prove difficult, given the neurobiological effects that trauma has on the areas of the brain that produce language.

Neurobiological Responses to Trauma

Trauma has a significant neurobiological impact on the brain. Increased physiological arousal symptoms such as elevated blood pressure, increased heart rate, and high levels of skin care conductance are common when people are exposed to reminders of their trauma experiences (van Der Kolk, 2000). These autonomic processes create a state of hyperarousal within the individual, and are responsible for triggering the *"fight, flight, or immobilization"* response as described by Porges (2009).

Neuroimaging studies have found that activity in the left inferior hemisphere of the brain is strongly inhibited when people demonstrate symptoms of posttraumatic stress are exposed to rich narratives of their trauma (Rauch et al., 1996). This *Broca's area* of the brain is considered to be the key component for translating personal experiences into verbal language. While the left-hemisphere area is depressed, right-hemisphere activity simultaneously increases, specifically in areas of emotional arousal (Rauch et al., 1996). Since language is a function of the left hemisphere, verbalizing unresolved traumatic events using talk therapy alone, severely limits the client's ability to process trauma in a way that offers healing (Perryman, Blisard, & Moss, in press).

Siegel (2010) stated that the integration of the left and right brain in the pre-frontal region is the key to balance for the nervous system. It appears that "unresolved trauma results in persistent chaos and rigidity" (p. 189), preventing this balance or integration from taking place. Thus, finding a way to integrate both sides of the brain and process the trauma experience is crucial to healthy functioning (Field, 2014; Schore, 2012; Siegel, 2010). These challenges in verbalizing trauma prior to integration demonstrate a critical need for counselors to use creative methods with clients.

Sandtray

Sandtray is a nonverbal and expressive therapeutic intervention in which the sandtray and natural elements and various small figures are utilized as the medium for communication. Feelings and emotions are projected onto the figures in the created sand scene, creating a safe space

for exploring and discussing issues related to trauma (Homeyer & Sweeney, 2011). Badenoch (2018) described the sandtray therapy process as an, "embodied conversation between our inner world and outer awareness, held and witnessed by another" (p. 298).

The Diagnostic and Statistical Manual of Mental Disorders, 5th ed. (American Psychiatric Association, 2013) illustrates that sensory symptoms are emphasized in each of the four diagnostic clusters of posttraumatic stress —intrusive thoughts and memories that cause the individual to re-experience the trauma, avoidance of stress, negative cognitions and moods, and hyperarousal and reactivity. It can thus be theorized that MST may be effectively met and treated with a sensory based intervention allowing clients who have experienced trauma to access those implicit memories associated with trauma, for which they have no words (Badenoch, 2018).

The key properties of sandtray are: (a) symbolic use of miniatures can create a therapeutic detachment and sense of safety; (b) the as-if element allows clients to act out various scenarios and take control over events which were uncontrollable during the real-life trauma; (c) projection allows the client to act out difficult or frightening emotions through the miniature, rather than verbalizing them themselves; and (d) displacement of these difficult emotions also allows the client to express frustration and anger in a safe way, through use of the miniatures (Schaefer, 1994). Sandtray therapy, within the safety of the therapeutic relationship, creates a safe distance as they relay their trauma through the figures, which can prevent the client from feeling distressed or overwhelmed by the trauma memory (Schaefer, 1994). This safety and the properties listed above are especially relevant to those who have experienced MST, given the military cultural stigma that exists around seeking mental healthcare. Any indication of lack of control or feelings of fear may often be interpreted as weakness, rather than a natural response to trauma, leaving military members feeling alone with intense feelings. These individuals are also unlikely to feel safe expressing such feelings to those who outrank them (Hall, 2008). The safe therapeutic space offered through sandtray therapy and the integration of both hemispheres of the brain can be conducive to expressing intense feelings in a non-threatening way (Homeyer & Sweeney, 2011).

Neurobiological Implications for Sandtray

Sandtray may be helpful to those who are stuck in the left brain and seem to either deny or be unable to express painful feelings. Badenoch (2008) pointed out that the use of sandtray can "awaken and then regulate the right brain limbic processes" (p. 220), offering insight, perspective, and the use of symbols as words to process their trauma in a safe, less direct way. This process can calm the central nervous system. Once the counselor has established a trusting therapeutic relationship with their client, sandtray can "open the highway for the right to offer itself to the left", aiding integration of the right and left hemispheres of the brain (Badenoch, 2008, p. 224). Sandtray therapy can significantly diminish or alleviate the negative effects of the trauma by creating a corrective experience, allowing clients to lead a more productive life (Badenoch, 2008; Perryman, Blisard, & Moss, in press).

Sandtray Directives

As with most therapeutic interventions, sandtray application, is somewhat unique to the style of the counselor. There are however, some baseline components necessary for the appropriate use of this intervention. Homeyer and Sweeney (2011) suggested the following steps for introducing and conducting sandtray: (a) room preparation, (b) introduction to the client, (c) creation of the sandtray, (d) postcreation, (e) sandtray cleanup, and (f) documenting the session. Room preparation includes the orderly display of miniatures and natural elements on shelves according to their thematic category (animals, people, natural elements, vehicles, etc.), in order for them to be easily accessible to the client.

Perryman and Anderson (2011) stressed that miniatures should represent numerous emotional themes including imaginary, nurturing, and aggressive elements. Miniatures exhibiting movement and stability, such as vehicles and anchors or stones, are important and can represent multiple archetypes and themes. Miniatures representing birth, death, monsters, religious and spiritual themes, can offer cultural representation (Perryman & Anderson, 2011). Various types of animals and people, buildings

(homes, chapels, schools), and lighting objects (e.g., torches, lanterns, and candles), and hopeful elements (e.g., lucky horse shoe and wishing well) are also beneficial. It is vital that miniatures are available to represent the client's world and with military populations, firearms (e.g., guns, hand grenades, tanks, cannons), military identification tags, soldiers/airmen/sailors/marines, fighter planes, helicopters, Humvees, ships, and other military elements should be included (Kern & Perryman, 2016).

The sand should be flat and smooth, with no figures buried underneath from any previous sessions (Homeyer & Sweeney, 2011) when the client begins the sandtray therapy process, with chairs for both the counselor and client placed near the sandtray. Clients should have ample room to walk around the sandtray, as well as to and from the shelves of miniature figures (Homeyer & Sweeney, 2011). The sandtray may be introduced by the counselor in various ways, according to the theoretical perspective of the counselor. The counselor may ask them to recreate a story in the sand related to a particular trauma that the client is focused on. As previously mentioned, this can offer an opportunity for those implicit memories associated with the trauma to also be expressed. Another possibility would be recreating a recent triggering event in the sand. A nondirective approach would include asking the client to use the sand and miniatures to create a scene or story that reflects their physical or emotional world (Homeyer & Sweeney, 2011). The counselor observes with only minimal or no commentary at all, allowing ample time for the client to complete their tray in order to maintain the safe space.

The counselor will examine the sandtray from both a visual and emotional perspective, looking at the physical placement as well as the emotional metaphors played out by the types and placement of miniatures. The counselor may ask the client to discuss the sand scene they have created as a whole, or piece by piece (Homeyer & Sweeney, 2011). During this process, clients' feelings, words, and body language should be reflected by the counselor, just as they would in traditional talk therapy, promoting feelings of connectedness and understanding, maintaining the therapeutic environment. If clients do not want to explain a particular component of the sandtray it is vital that the counselor follow their lead, and not push them to

go further than they feel able to go. It is likely this piece will continue to come up and they may feel more comfortable discussing it in the future. The client actually does not need to verbalize the details of the tray in order to process through the issue (Homeyer & Sweeney, 2011).

Counselors may find it beneficial to use a tray that can be turned for different perspectives so that the client may gain additional awareness and perspective of their story (Perryman & Anderson, 2011). The counselor would ask the client's permission to turn the tray. If the client is agreeable she will be told to pause the tray at any point that she has an awareness or a feeling to discuss. When the tray has been completely turned, the client is offered an opportunity to change their scene in any way they choose in order to have it look the way they would like. The counselor continues to reflect content, feelings, and body language, as they turn the tray for a second time, stopping to process as directed by the client, either verbally or as the counselor perceives a change in their expression or energy. By the very nature of the military system, military service members often feel an external locus of control as they function in a hierarchical and authoritative culture (Hall, 2008). Those who have endured MST are particularly vulnerable to a sense of lack of control over their environment. This practice may thus be particularly helpful for processing trauma memories with this population as it offers an opportunity for internal control. Enabling the client to process a trauma event and create a desired outcome is likely to be therapeutic as integration takes place.

The next step in the process is noting the organization of the sandtray using the following descriptors: empty, unpeopled, closed in, disorganized, rigid, or aggressive (Homeyer & Sweeney, 2011). As the session closes, the counselor should inform the client that the tray can be left assembled. Dismantling their sand story can be difficult and potentially retraumatizing, especially if there was a lot of intense emotion expressed. The counselor should not touch the created sandtray or the figures in it without the client's permission at any point in the session (Homeyer & Sweeney, 2011). Documentation should include thorough descriptions of the sandtray, figures and the client's verbalizations, body language and

affect. Photos can also be taken prior to cleanup to add to the case note and clients can also be offered the opportunity to take photos of their own.

Case Example

Claire is a 26-year-old female, and a veteran of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), commonly known as the conflicts in Iraq and Afghanistan. Claire was an enlisted soldier in the U.S. Army, with a rank of Specialist (pay rate of E-4), one of the four junior enlisted ranks available to soldiers. Claire separated from the military once her four-year contract expired, choosing not to reenlist. Claire initially presented for counseling with concerns of anhedonia, fatigue, mild suicidal ideation, and intrusive thoughts and memories. One rapport was established she shared that while deployed she was repeatedly sexually assaulted by a higher ranking Officer in her unit. She was required to work closely with this individual throughout the deployment, and did not believe that reporting the assaults would bear any consequence for her perpetrator. Initially, she stated, she simply wanted to focus on her tasks and mission during the deployment. Once the unit had returned home, the assaults ceased, but Claire interacted with her assailant most days of the week. She shared the belief that reporting him would only put her unit in upheaval, and that she would be the one to get in trouble. Claire was tearful during most sessions. She was not sleeping well, and often had nightmares about her assault. She shared feeling angry and out of control at times, and helpless and ashamed other times. It was very difficult for her to discuss the assaults directly.

After several sessions Claire's counselor asked if they might try something a little different. The counselor explained the premise of using sandtray techniques, and how it can help the brain to access and express trauma events differently than verbal communication. Claire seemed interested in the process and agreed to try it. Initially, she buried her hands in the sand, getting a feel for the texture and sensation of it. Once she was done getting acquainted with the tray, she turned to the figurines on the shelf, assessing her options. She quickly chose a Wonder Woman figurine, and posted her on a mound of sand on the left side of the tray. She used

several lengths of fence to section off that half of the tray. She stopped to contemplate the scene, and turned to look at the figurine shelf for a long moment. Her hand reached out for several figures, before choosing a small bird that she carefully placed in the upper right corner of the tray. She quickly added an alligator, half buried in the sand, surreptitiously crawling toward the bird. Behind the alligator, she placed several soldier figurines in a circle, with their backs turned to the alligator and the bird. She paused the study the scene again, reaching out to stroke a finger along the bird's back. She looked back at the figurine shelf and grabbed a small heart shaped stone, which she placed at the feet of Wonder Woman, on the left side of the tray. After a few more moments she looked up at her counselor and shrugged her shoulders. "That's it, I think," she said.

Claire processed her sandtray by elaborating on the themes of the story she told within the sand, instead of launching directly into the trauma event. The counselor asked her about each figurine, piece by piece, and how it fit into the larger story. Claire started by discussing the left side of the tray. She pointed to the Wonder Woman figure overlooking the heart in the sand and stated that this represented how she felt when she joined the Army; like she was able to conquer anything, and that she'd be contributing to the good of the world with others who cared in the same way she did. She shifted her gaze to the right side of the tray, across the fence barrier she had created. Her mouth twisted in thought at she contemplated this side. She gestured to the bird in the corner and shared that instead of feeling like she was strong and capable, she felt like a bird with a broken wing. She described trying to escape the oncoming assault from the alligator in the sand, buried so that others could not see what he was. She shared feeling small and vulnerable, tethered to the ground and unable to escape his repeated advances, fearing both his physical and social power. When the counselor inquired about the group of soldiers behind the alligators, Claire stated that these represented her unit who had turned a blind eye to the repeated assaults, despite having knowledge of the circumstances. She felt they had turned their backs on her, refusing to provide help or safety. In those moments, and many after, she had felt hopeless. Claire and her counselor continued to use sandtray in to process through her MST in

subsequent sessions. She created similar scenes each time she would recount the trauma.

After several weeks of working together, Claire again created the familiar scene in the tray. She took a long moment looking at the alligator and the bird, and slowly removed the bird from the tray to place it back on the shelf of figurines. She spent several minutes considering the options of figurines before her, clearly searching for something specific. Finally, she chose a small figurine of a campfire and placed it in the center of the scene, behind the alligator. She looked up with a small smile and said "I don't want to be the scared, broken bird anymore. But you don't have a phoenix." The fire, she explained, was representative of a phoenix rising from the ashes—a rebirth and growth from her trauma. Claire slowly began to be able to talk about her MST without using the sandtray to distance herself from the trauma. She was able to hold the memories and experience the emotions within them without feeling that she was placed directly back in the trauma again. The memories were still painful, but had become bearable. She continued to use the phoenix as a representation of a "second life" in which she could still find ways to bring good to the world, as she had wanted to do when she initially joined the military. She started volunteering at an animal shelter, frequently working with abused animals. She shared that it gave her a sense of well-being and happiness to provide for helpless animals, and that if they could find restored trust and happiness then she could as well. She was able to reconnect with family and friends, drawing herself out of isolation and back into a strong support system. She began sleeping better, discovering hobbies and activities that she enjoyed, and shared feeling a greater sense of peace and strength with herself.

If Claire and her counselor had relied solely on talk therapy for their sessions, Claire's outcome may have been vastly different. As mentioned throughout this manuscript, language and the ability to verbalize is housed within the left-brain functions, which are drastically inhibited when the right-brain is flooded with strong emotion such as trauma recollection (Badenoch, 2008; Rauch et al., 1996). This is problematic when the only form of processing is attempted through verbalization. Claire and her counselor may have struggled through their sessions with a feeling of being

stuck, and may have lost focus of the trauma as they searched for issues that could be communicated through words. Feeling stuck for a prolonged period of time may lead to Claire to believe that counseling is not something that will be helpful for her. Additionally, Claire's counselor may have run the risk of viewing Claire as "resistant" or simply not ready to process the trauma or to do the work involved as a client. This perception could create a rupture within the therapeutic alliance as frustration develops in both Claire and her counselor. Instead, by choosing to engage in a sensory technique that hones in on both right-brain and left-hemisphere functioning, and provides a sense of safety, distance, and trauma integration, Claire and her counselor were able to see tangible changes in Claire's emotional, cognitive, and behavioral health within a relatively short timeframe.

Conclusion

Many of the commonly used trauma-focused treatments (e.g., eye movement desensitization and reprocessing, trauma-focused cognitive behavioral therapy, etc.) require verbal engagement and narration of trauma from the client, extensive (and sometimes expensive) training for the counselor, or both. Comparatively, sandtray therapy is an inexpensive and straightforward option that can be learned via mentoring or even through instructional manual and practice, making it accessible to most counselors. Additionally, sandtray techniques do not require immediate, if any, trauma narration due to the processing that occurs through the symbolism within the tray. This feature may be particularly important when considering the use of sandtray to process through MST, due to the neurobiological components that can hinder the verbal expression of experiences and emotions surrounding trauma events.

Future research on this topic will be important to understand how to best serve the military community and survivors of MST. Next steps in research should include a pilot study of the anecdotal case study and conceptual pieces laid out in this article. Particularly, a single case design, where multiple participants establish a baseline of emotion and behavior with multiple data points before engaging in sandtray interventions to

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process their trauma, would provide important information. This will allow researchers to determine if this intervention is as beneficial as the authors believe it will be. Additionally, qualitative research around the phenomenon of MST will provide a deepened understanding of survivors' experience of the trauma and the culture and context in which it occurs. Such research will provide invaluable information for the treatment of MST, as well as advocacy for improved systemic policy and procedures regarding this type of trauma.

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Supporting Children in Military Families During the Pre-Deployment Stage: Operation Intervention and Prevention

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Children in military families face many challenges when their service member parent or guardian deploys. These deployments, a regular occurrence in the military lifestyle, are viewed in three stages: pre-deployment, mid-deployment, and post-deployment. This article explains how school counselors can equip students during the pre-deployment stage with coping mechanisms that they will use for the remainder of the time that their parent is deployed. Specific suggestions for practical interventions rooted in the American School Counselor Association's (ASCA) National Model are provided including individual and group counseling, connecting students with needed community, military, and mental health resources, and helping faculty and staff understand the nature of the pre-deployment stage and its effect on the student's ability to succeed in the classroom.

Keywords: pre-deployment stage, military, professional school counselors, resiliencies, resources

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There are approximately four million children of service members in the United States, 80% of whom attend public schools (Elias, 2016). A major aspect of the military lifestyle is deployments, where a service member is assigned to work in a remote location for an extended period of time (SAMHSA, 2010). Military deployments have lasting effects on children of military service members, as they are separated from their

caregivers for significant stretches of time (James & Countryman, 2012). These deployments, lasting three months to a year, can be viewed in three stages: pre-deployment, mid-deployment, post-deployment. In the pre-deployment stage, the family prepares for the service member to leave. The mid-deployment stage occurs when the service member is away and the post-deployment stage consists of the parent's reintegration into homelife (McNulty, 2005). While each of these stages are emotionally taxing on children, this manuscript will focus on the pre-deployment stage. There is no set time that this stage lasts, as it begins as soon as the service member learns about the upcoming deployment and may last weeks or months (Pincus, House, Christenson, & Adler, 2007).

Professional school counselors stand in a prime position to help military children in the pre-deployment stage. Armed with counseling skills and the ability to connect families with key mental health providers and community resources (ASCA, 2018), school counselors can address presenting symptoms (intervention) as well as prepare military children to handle future challenges (prevention) by following the guidelines of the ASCA National Model (ASCA, 2012) in their work. Using a simultaneously preventative and interventative approach, proactively helping students in this pre-deployment stage will help equip them with the coping strategies they will need during the final two stages of the deployment.

Characteristics of Pre-Deployment Stage

During the pre-deployment stage, the deploying service member will be faced with many responsibilities. She/he will need to logistically prepare to leave for an extended period, all while trying to balancing impending and increasing responsibilities at the workplace related to the upcoming deployment (Pincus et al., 2007). As work responsibilities increase, the focus on one's family often decreases (Pisano, 2010). This stress of an upcoming absence as well as possible lack of focus on one's homelife can negatively influence children.

During this pre-deployment time, family members may feel a sense of denial about the upcoming deployment. Children may not be able to, or

may not want to, process the time frame that the service member may be away. They may already begin to feel a sense of loss as they think about what it will be like to live without their deployed parent (Wood, Greenleaf, & Thompson-Gillespie, 2012). These feelings of abandonment may cause them to detach from their deploying parent, creating stress on the relationship and resulting in an unhealthy family environment. In addition, children may feel anger at the service member for leaving or may even feel guilty, as they blame themselves for the parent's upcoming absence (Military Kids Connect, 2018).

The military spouse may be experiencing these feelings of loss and detachment as well, although not necessarily at the same times as the child. The resulting marital stress, and resulting conflict, can affect the child's sense of well-being and security (Pincus et al., 2007; Pisano, 2010). Studies have shown that the more stress that the non-deploying parent feels, the more challenges the child faces during this stage of pre-deployment (James & Countryman, 2012).

Providing Individual and Group Counseling Interventions

With their daily access to the student, school counselors can provide needed and reliable support to students during the pre-deployment stage. Primarily, after discovering that the parent is scheduled to deploy, school counselors should set up regular and dependable individual counseling sessions with students where they can help students to become aware of the emotional stressors of preparing for a deployment (ASCA, 2018; Eschenauer & Chen-Hayes, 2005). As they become more aware of their feelings, students can better process and handle their emotions (The Center on the Social and Emotional Foundations for Early Learning, 2018). These individual counseling sessions provide the student with a sense of consistency as well in a time of uncertainty in their homelife.

Teaching and practicing anger management techniques as well as journaling may be helpful during individual counseling sessions. Deep breathing and muscle relaxation exercises coupled with therapeutic drawing and painting may likewise help to relieve stress (Wood et al., 2012). In addition, school counselors might help military children gain a sense of

purpose and focus as they prepare for the deployment. For example, a goal-setting exercise would be beneficial in the pre-deployment stage as students can then track and view their progress over the course of the whole time their parent will be away (Wood et al., 2012).

School counselors might also focus on communication skills in their individual work with students, as these skills have been found to be useful and beneficial to military family members throughout all stages of the deployment (Ponder & Aguirre, 2012). School counselors can help students learn how to communicate their needs and wants during this time to their parents. In turn, parents should encourage their children to ask questions related to the upcoming deployment, such as how long the deployment will last, where the service member will be located, and who will handle the deployed parent's responsibilities at home (Pisano, 2010). A concrete and structured plan in place for communication (i.e., 5 minutes before bedtime each night) might help to alleviate stress and create a sense of routine that can be carried into the future deployment. School counselors might additionally help the student and parents develop a plausible plan to communicate with the service member during the upcoming deployment such as Facetime or email, giving them hope for a successful continued relationship with their parent (Ponder & Aguirre, 2012).

Finally, school counselors should focus on capitalizing on the military student's resiliencies, or how they are best able to positively adjust to the upcoming changes they are facing during the pre-deployment stage (Easterbrooks, Ginsburg, & Lerner, 2013). Empowering the student to feel confident and competent will give them a sense of their ability to handle the upcoming deployment. In addition, helping students remember how they have overcome challenges in the past and then focusing on growing their self-esteem will give them a sense of security throughout the changes and challenges ahead (Bock, 2012; Orth & Robins, 2014). Using bibliotherapy is one way to grow these resiliencies. Military child-focused books such as "Brave like Me" by Barbara Kerley (2016) and "Lily Hates Goodbyes" by Jerilyn Marler (2012) can help students recognize their own strengths and gain assurance in the normalization of their experiences.

Group counseling may prove beneficial to students in the pre-deployment stage as well, as talking with others in the same situation will normalize their feelings as well as give them a sense of community and support (Kim, Kirchhoff, & Whitsett, 2011; Kovatch, 2015). In the group counseling setting, military children can both receive support and give support, capitalizing on and increasing their resiliencies (Kovatch, 2015). Potential group activities include those suggested in the School Counselor's Resource Series "Dealing with Deployment: A Small-Group Curriculum for Elementary and Middle School Students" (ASCA, 2006). These activities can be tailored based on the pre-deployment stage and then continued on a long-term basis as the deployment progresses.

Connecting Families with Military and Community Resources

During the pre-deployment stage, school counselors can connect military children and their families with military resources that will help support them during this time. These partnerships as a key aspect of the professional school counselor's role, as she/he implements the ASCA National Model (ASCA, 2018). For example, if the military family is a Navy family, the command appointed Ombudsman will serve as a direct resource and guide for the family in finding the help they need (United States Navy, 2018b). A Family Readiness Group, usually present in the service member's deploying unit or command, may also meet regularly to provide information related to the timeline for the upcoming deployment and to provide a place for the family to ask questions and to identify with others in a similar situation (United States Navy, 2018a). School counselors might also refer family members to the School Liaison Officer, who will be familiar with military resources as well as local community resources related to the child's academic performance during all three stages of the deployment (United States Department of Defense Education Activity, 2018). Civilian community resources that may prove helpful to the student during the pre-deployment stage include local places of worship (Croymans, 2017) as well as organizations such as the Boys and Girls Clubs that may provide mentorship opportunities for the student and do not

charge for military children's membership (Boys and Girls Clubs of America, 2018).

Providing Mental Health Support and Resources

In addition to helping students in the school setting, professional school counselors should refer military children to mental health providers in the community if additional support is needed. The military insurance provider, TRICARE, allows military families to self-refer to a counselor in the community (Tricare, 2018). Therefore, school counselors should ensure that the student's parents are aware of this benefit, as previous studies have found that service members often avoid counseling services in fear of showing a weakness or being criticized by their superiors (Sharp et al., 2015). With the permission of the parents and respecting the student's confidentiality, school counselors should coordinate with the student's mental health provider, as needed, to ensure that the student is receiving the best possible support in and out of the school setting (Villarreal & Castro-Villarreal, 2016).

Partnering with School Faculty and Staff

Teacher collaboration is likewise essential for a military student's success during the pre-deployment stage (Shoffner, Wachter, & Morris, 2010). Unfortunately, often teachers are unware that their students are from a military background or that their parent is readying to deploy (Elias, 2016). Because teachers spend the most time with military children throughout the school day, school counselors should inform teachers and school staff about the parent's upcoming deployment and of possible symptoms of emotional or mental stress that often occur during the pre-deployment stage so that they can recognize and report them. Through professional development training, teachers should also be made aware of the nature of the pre-deployment cycle so that they can be aware of what the student is facing both presently and in the future. Cultural awareness is key to this training, as school faculty and staff should understand the nature

of military culture and how it affects the child's ability to succeed academically in school (Cole, 2014).

Recommendations for Future Research

Future research should focus on additional interventions for professional school counselors to use with military children as they prepare for their parent's deployment. For example, qualitative studies might explore the perceptions of students as they enter and endure the pre-deployment stage. Their parents likewise could be interviewed to understand their own pre-deployment experiences while caring for their child while managing their other work and household responsibilities. Finally, quantitative studies might track the academic progress of students through the pre-deployment stage and explore how a school counselor's interventions might improve student performance during this challenging time. Overall, more attention should be paid in how school counselors can integrate support for military families as a part of their comprehensive school counseling programs, equipping them socially and emotionally as they serve our country.

Conclusion

Proactively helping students during the pre-deployment stage helps military children adapt new coping strategies early on that they will use throughout the deployment. By providing them with individual and group counseling, capitalizing on their resiliencies, and encouraging them to use outside counseling and community resources in the midst of social and emotional challenges, professional school counselors can effectively help military children and their families prepare to overcome the stressors that deployments bring. This support will ultimately strengthen the family overall and provide a strong foundation for the service member's vital work while she/he is away.

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First Responders: Identity, Culture, and Challenges for Mental Health Counseling Professionals

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First Responders (FRs) are a diverse group of trained professionals and citizens who provide initial aid and protection in emergency situations. On a professional level, they encompass all areas of medical, law enforcement, and fire services, including dispatch personnel, community safety officers, hospital staff, trained emergency personnel, and those involved in disaster response. FRs are frequently exposed to the initial and raw experiences of an emergency scene and must provide medical, emergency management, and informational services as appropriate. Due to these experiences they are highly susceptible to stress, burnout, compassion fatigue, vicarious traumatization and PTSD. To work with these populations mental health counseling professionals must understand the needs of these populations, and the personal and professional stressors that impact them.

Keywords: first responders, law enforcement, emergency medical services, emergency management, fire services, emergency dispatch, compassion fatigue, vicarious traumatization

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Identity and Culture of First Responders

First Responder Identified

In common language usage, the term First Responder (FR) has taken on a broad range of meanings and has remained undefined as a term with roles varying according to the circumstances in which it is employed (Transportation Research Board, 2013). The Medical Dictionary (2009) gives a definition of 'the first individual to arrive at the scene of an emergency', which includes any person, regardless of their training or lack of training, who responds to an emergency situation to protect life or property. Lack of training of many FRs is the reason behind the creation of the Good Samaritan Laws that affords protection to civilian and untrained first responders.

The most widely used description of FR, especially after the terror attacks of September 11, 2001, includes law enforcement officers (LEO), Fire personnel (Fire), and Emergency Medical Services (EMS). The FR description also generally assumes that the first emergency-trained professional on scene will provide an understanding of the scene and the situation, determine the necessity of additional resources (e.g., LEOs), and perform initial emergency interventions as are within their training (Crowe, Glass, Lancaster, Raines, & Waggy, 2015; Grace, 2013; Lanza, Roysircar, & Rodgers, 2018). This includes those officially trained as Emergency Responders (Federal Emergency Management Agency, 2018). This general definition also has a more difficult aspect, such as in the instances of the traditional FR who arrives at an emergency scene while off-duty, and is carrying no equipment that they would professionally have access to (i.e., a fire engine, a medical jump-kit, etc.); or those who have to attempt to access the person(s)-in-need in non-traditional ways, such as those involved in wilderness first response, and search and rescue operations. These instances can force the FR to act only with the training and knowledge they possess (Tilton, 2010), but with no equipment or back-up personnel, and this can change the FR's immediate perception of the situation from one of capacity to one of uncertainty.

The designation of who qualifies as a FR can also be determined by state regulations. These state determined designations can vary widely from those that respond in a professional capacity to an emergency that occurs in a school building; to 911 dispatchers; to a person who uses a limited amount of equipment to perform the initial assessment of, and intervention with, sick, wounded, or otherwise incapacitated persons; to someone who has successfully completed a United States Department of Transportation approved First Responder Course of training in basic life support (Transportation Research Board, 2013). These state designations are frequently used for federal and state grant money purposes that allow states to improve training and public access to services. On the federal level, Homeland Security (6 U.S.C 101) determines a first responder to be an emergency response provider that includes all levels of government and non-government public safety agencies including fire, law enforcement, emergency medical response, hospital emergency facilities and staff, and other related persons, agencies and authorities (U.S. Government, n.d.).

For the purposes of this paper, FR is defined as anyone whose training or occupation may bring them into initial contact with persons/populations that have experienced trauma and/or medical emergencies, with the intention to render aid to those persons. This could include military health care workers; public health service workers; state, local, and paid and volunteer first responders including emergency and non-emergency dispatch personnel; community safety officers; hospital staff; trained emergency personnel; and those involved in disaster response (Benedek, Fullerton, & Ursano, 2007). This definition of the FR population is based on an understanding of the emotional and psychological toll that working with traumatized and medical needs populations may exact of the FR. Contact with the emotionally charged experiences of someone who has been traumatized, whether it be directly such as the interaction between an paramedic and the victim of a car crash, or indirectly such as the interaction between an emergency dispatcher and a sexual assault victim who is calling for help, can lead over time to that FR experiencing symptoms of compassion fatigue and vicarious traumatization (Figley, 1995a, 1995b;

Paton & Violanti, 1996; Regehr & Bober, 2005; Regehr, Goldberg, & Hughes, 2002) and merits their inclusion in this discussion.

First Responder Culture

First Responder (FR) culture is not a singular concept and can vary according to the environment the FRs primarily work within. For example, Firefighters work in a team environment that is more communal and familial. They may spend long shifts together (up to 24 hours at a time) in the performance of their duties, which would include training and community assistance. In contrast, law enforcement may operate in smaller groups, partnerships or as individuals and may primarily honor the "fraternal" code of being a law-enforcement officer, but not be bound to a smaller operational unit that has their first loyalties. Emergency medical personnel (EMS) may function in either of these environments, or something entirely different, as they may be attached to fire or public safety service or may be employed with a company contracted to provide emergency medical services to a particular area, such as a county or city. They may also be unpaid or paid volunteers, such as those who may work with rural fire departments. And they may also be city or county employees, such as those who work for emergency dispatch operations (Cates & Keim, 2016).

Overall however, FRs do have many things in common as they are generally a tight-knit community of working professionals who must trust and rely on each other in difficult, and potentially dangerous, situations (Kronenberg et al., 2008). In the face of tragedies, they must perform their duties with professional efficiency (Regehr, Goldberg, & Hughes, 2002), even when those duties bring them into contact with emotionally intense and sometimes dangerous situations that are beyond the scope of everyday experience (Mildenhall, 2012; Mitchell & Bray, 1990). FRs generally consider themselves to be able to handle any situation, and are willing, due to their training and experience, to enter dangerous situations to protect lives and property. They are generally respectful of hierarchy, action oriented, focused on high performance standards, dedicated to their

profession, and have a high desire to serve the common good (Linton, 1995; Mitchell & Bray, 1990).

Education and Training

A FR's education is dictated by their specific job responsibilities and can include several weeks of training up to graduate level education. Additional certifications and training can be obtained by the FR, such as Hazardous Material, search and rescue, wilderness rescue and advanced life-support. As the FR field becomes more professionalized, as seen with the EMS paramedic, education and training becomes lengthened and more intense, most being offered by higher education institutions that are accredited (Cumbie, 2018).

Lifestyle Challenges and Stressors for FRs

The challenges and stressors that FRs live with can take many forms and be comprehensive in their impact of their professional identity, work lives, and personal and family relationships.

Shiftwork. Shiftwork is the cyclic rotation of scheduled worktimes that frames much FR work, and has become one of the most stress inducing elements of the job (Pisarski, Bohle, & Callan, 2002). Shifts for first responders can vary widely and the traditional 24 hours on-shift followed by 48 hours off-shift is still commonplace for fire departments and EMS agencies. However, other FR shifts are formatted in a variety of ways: day or night shifts for 10 hours each shift, 14 hour shifts for 3 or 4 days in a row, 12 hours shifts of 3 days on - four days off/ four days on - three days off, and rotating shifts where the FR works a specific shift (e.g., 5p-1a each day) for several days in a row followed by a day off and then goes back on-shift on another shift schedule (e.g., 1a-9a). These extended and varying shifts can negatively impact the cognitive functioning of the FR (Faircloth, 2011) and lead to increased risk of injury (Reed, 2005; Weaver et al., 2015). Due to the time available between shifts it is common for FRs to work multiple jobs or take overtime shifts, frequently in a professional role

such as they already work, meaning that it can be easy to accrue 48 consecutive hours on-shift (Cates & Keim, 2016).

Sleep concerns. Problems related to sleep are common occurrences for those on shiftwork. Most healthy adults need between seven to nine hours of sleep per day (Hirshkowitz et al., 2015), and a restful sleep period is often difficult to obtain due to poor sleep hygiene, health issues, diet, and undiagnosed sleep disorders. Sleep deprivation can be a result of not getting enough rest for one sleep cycle or an accumulation of many sleep cycles. In fact, sleep deprivation seems to be one of the most prominent and dangerous problems in terms of physical and mental health, attention, and decision-making abilities (Walker, 2017). Sleep disorders can wreak havoc on a FR's job performance, mental capacity, and physical health. Sleep disorders may increase the chances of a FR having health related issues such as cardiovascular disease, obesity, and hypertension. Furthermore, FRs are at risk for impairment in vigilance, reaction time, reasoning, mood, and judgment (Chattu et al., 2018). The implications of sleep deprivation may be especially dangerous when FRs are on the job. Operating an emergency vehicle, such as an ambulance, fire truck, or patrol car, while sleep deprived simultaneously puts themselves and the public at risk (Barger et al., 2015). Additionally, due to the aforementioned cognitive impairments of sleep deprivation, the FRs are more likely to make mistakes rendering protection or aid (Chattu et al., 2018).

A particular concern for FRs may be Insufficient Sleep Syndrome (ISS) which is characterized by daytime need to sleep and shortened sleep cycles lasting for at least three months (American Academy of Sleep Medicine, 2014). ISS is just one potential result of sleep deprivation; however, it is one condition which is controllable by the FR's sleep choices while off-duty. There are ways in which FRs can personally improve their sleep quality, such as with sleep hygiene protocols (Horne & Shackell, 1987; Walker, 2017). Unfortunately for FRs and their agencies, it is often unrealistic to adjust work schedules to promote more regular sleep schedules due to the operation tempo. Operating under these constraints, it is imperative for FRs to follow sleep hygiene practices and make diet

changes which may offer some relief from sleep deprivation issues within the FR communities. Public and professional discussion regarding sleep disorders pertinent to FRs may make an impact on individual beliefs and institutional policy regarding sleep.

Diet. Researchers are now viewing the brain-gut-microbiome as a critical component in most functions of the human body. It operates in a bidirectional manner via the vagus nerve between the brain and a complex microbiome in the gut made of bacteria, fatty acids, fungi, and other components (Dinan, Stilling, Stanton, & Cryan, 2015). Many variables can influence the diversity of the gut microbiome including trauma and stress encountered by FRs in their work environments (Leclercq, Forsythe, & Bienenstock, 2016). Certain medications, such as antibiotics, can diminish the functionality and health of the gut microbiota (Cryan & O'Mahony, 2011). Changes to the gut microbiota can produce changes in behavior, cognition, memory and other crucial areas of brain function (Marchesi et al., 2016). These changes in a FR's gut microbiome may be a silent issue not often discussed in training programs or wellness consults. Diet and nutrition can harm or help the health of the gut microbiome (Lima-Ojeda, Rupprecht, & Baghai, 2017). FRs may be more prone to gut microbiota dysbiosis due to lack of availability of nutritious foods and compressed meal times (Firefighter Fatalities in the United States in 2004, 2005; Vila & Samuels, 2011). This is a crucial addition to the discussion of FR overall physical and mental health.

Ambiguous loss. There are two types of ambiguous loss not often discussed in the relationships between FRs and their spouses, partners, and families. The first type of ambiguous loss is when the FR is not physically present, but may be psychologically present (Boss, 1999; Faber, Willerton, Clymer, Macdermid, & Weiss, 2008). An example of this type of loss is when the FR is on duty but is able to text or call their family. The second type of ambiguous loss is when the FR is physically present, but not mentally or emotionally available or engaged (Boss, 1999; Faber et al., 2008). An example of this type of loss is when the FR is fatigued, experiencing burn-out, or perhaps dealing with brain injury or a mental

health concern that reduces their involvement with their family. They are still present in the home; however, the family may not receive emotional support from the FR. Both types of ambiguous loss are considered stressors in the familial relationship which may lead to boundary ambiguity.

Boundary ambiguity is considered a social disorder in which the roles and presence in the family system become confused or unclear (Faber et al., 2008). An example of how boundary ambiguity can put stress on a family is when the FR is on-duty during an evening work shift. The spouse at home is left to perform all of the household and family responsibilities on their own without the support or involvement of the FR. This ambiguity is compounded over the course of a career in which the spouse may feel a lack of support by having to do everything because the FR is not present to be consistently relied upon. This type of boundary ambiguity is also seen in military families when the service member (SM) is deployed (Faber et al., 2008). It can even be seen in children of FRs and SMs. During deployments children are often asked or volunteered to assume responsibilities in the family that blur the lines of their typical childhood or adolescent roles. These responsibilities may include cooking dinner, doing laundry, performing errands, and caring for younger siblings in the home. This is not to say these added responsibilities are not potentially character building for the child, however it may cause boundary confusion and stress during the absence of the FR/SM and after their return.

Interaction with trauma and medical emergencies. FRs may be the first trained professional, and potentially the first person, to arrive at an incident or scene of an emergency. This may make them the initial point of contact with anyone on scene who needs medical or emergency care and may make them the primary information source for additional emergency services that may be necessary. For example, the FR may be on scene in their primary duty as law enforcement but may have to act as an initial first-aid provider or as emergency management.

Due to these factors it is common for FRs to experience ‘traumatic exposure’ which is the experiencing or witnessing of an event in which death, serious injury, or sexual violation occurred or was threatened to

occur to the self or someone else (American Psychiatric Association, 2013). In examining various types of trauma, it is important to distinguish between 'direct' and 'indirect' traumas. Direct trauma is in the experience of the trauma victim (such as a sexual assault, or witnessing an emergency where people were severely injured), while indirect trauma refers to the effect of a traumatic event on a person other than the person who witnessed or experienced the traumatic event. This does not necessarily mean that the FRs themselves are injured, which can certainly occur, but that they will likely work with people who have been traumatized by injury or emergency situations to the extent that the FR feels empathetically connected to the victim (Figley, 1995b; Kirby, Shakespeare-Finch, & Palk, 2011; Mitchell & Everly, 2001). This is a common occurrence for FRs and can lead to anxiety, depression and other psychological issues. While these types of interactions can be a common experience for the FR it does not mean that they must suffer cognitive or psychological impairment. It does mean that the continued exposure to such situations can eventually lead to professional impairment and degeneration of skills and motivations that are necessary to act effectively as a FR (Alexander & Klein, 2001; Figley, 1995b; Mitchell & Bray, 1990; Regehr, Goldberg, & Hughes, 2002; Regehr, Hill, Goldberg, & Hughes, 2003; Shakespeare-Finch, Smith, Gow, Embelton, & Baird, 2003).

Stress and Burnout. While stress may be an expected part of the job for a FR, some stress, and stressors, can build to the point that they are beyond the capacity of the person to manage them. This level of stress is generally recognized as an Acute Stress Reaction and occurs when the person is unable to process the flood of stimuli from immediate or ongoing situation or situations (Linton, 1995). This type of stress usually arrives quickly but is only present for a limited period of time. If this stress is not cognitively or emotionally processed, or builds upon other longer-term stressors, it may develop into a more significant anxiety or stress reaction (Fullerton, Ursano, & Wang, 2004).

Burnout has been described as a process wherein a person's emotional resources are depleted as a result of excessive psychological and

emotional demands being made upon them (Maslach, Schaufeli, & Leiter, 2001). FRs can be particularly susceptible to burnout as they attempt to provide care in traumatic and emotionally stressful situations. As their emotional reserves are exhausted FRs may find themselves unable to perform their duties at expected levels of proficiency, and may even find that they are incapable of the cognitive and emotional strength to effectively perform their duties.

Compassion Fatigue, Vicarious Traumatization, and Post-Traumatic Stress Disorder. If stress and burnout are allowed to continue unaddressed the FR may begin to experience longer-lasting and more significant reactions. On a generalized continuum these issues may take the form of Compassion Fatigue (CF), Vicarious Traumatization (VT), and Post-Traumatic Stress Disorder (PTSD) (Figley, 1995a; Pearlman & Saakvitne, 1995).

The desire to help others is considered a fundamental motivation for most FRs (Mitchell & Bray, 1990). This desire to help frequently creates a connection as the FR empathizes with a victim of trauma and begins to feel their pain or begin to think about their own lives and situations through the lens of the other person's traumatic experiences. This is generally considered Compassion Fatigue (CF) as the FR may be over-expending their emotional resources in their desire to render aid to those in need. This emotional expenditure can cause the FR to question their professional work and impact their effectiveness. Studies have found CF to be relatively common in FR populations (Regehr & Bober, 2005; Williams et al., 2012).

Multiple studies have indicated that direct exposure to the injured and dying can be highly stressful and can have severe negative effects on a person's psychological and emotional health (Alexander & Klein, 2001; Beaton, Murphy, Johnson, Pike, & Corneil, 1998; McFarlane & Bookless, 2001; Regehr, Goldberg, Glancy, & Knott, 2002). These interactions can progress beyond CF to the point of influencing the decision-making and behavior of the FR and can lead to the FR experiencing traumatic stress symptoms such as intrusive imagery, sleep disturbance, anxiety, and grief (Figley, 1995b; Regehr, Goldberg, & Hughes, 2002; Saakvitne & Pearlman,

1996). This level of stress reaction is considered Vicarious Traumatization (VT) and it can impact any FR regardless of age, gender, race, or level of training (Edelwich & Brodsky, 1980), and is considered inevitable in some FR populations (Figley, 1995b). The process of VT can also progress beyond the FR to personal isolation; alienation of peers, friends and family (Regehr, 2005); substance use and abuse; and long-term disability (Buchanan, Anderson, Uhlemann, & Horwitz, 2006; Figley, 1995b; Mitchell & Bray, 1990; Regehr, Goldberg, & Hughes, 2002; Saakvitne & Pearlman, 1996).

The factors that lead to VT can continue to progress in severity if the stress reactions are not, or cannot be, processed. A single event, or a culmination of events, can lead to a sense of helplessness with the situation, or if the person feels overpowered and that the event, or events, are outside their understanding or control (Gianni & Papadatou, 2016; Marmar et al., 2006; Wee & Myers, 2002). When the symptoms progress to the point that the FR is affectively and behaviorally reacting to their stress they may have then reached the clinical threshold of Post-Traumatic Stress Disorder (PTSD) whose symptoms include (a) recurrent, distressing and intrusive memories or dreams of the traumatic event(s); (b) avoidance of stimuli associated with the event(s); and (c) negative alterations in cognitions and moods associated with the event(s) (American Psychiatric Association, 2013). When these symptoms are expressed through the normal working environment of a FR they may be seen as avoidance of certain work-related activities, withdrawal from peer groups, irritability and anger, reduced job motivation, minor but persistent physical symptoms such as headaches or back pain, substance use and abuse, and thoughts or feelings of suicide (Regehr & Bober, 2005; Regehr et al., 2003; Saakvitne & Pearlman, 1996; Vettor & Kosinski, 2000).

Depersonalization and emotional distancing. A common behavioral trait among FRs is the depersonalization and emotional distancing many FRs develop in response to the stressors inherent in the job. Depersonalization creates an emotional distance between the FR and those they serve that allows the FR to manage the pressure of the

circumstances they are involved in. Depersonalization may be a traumatic stress reaction but is viewed by many FRs as a helpful, and perhaps necessary, way to function as a professional in the face of highly emotional and volatile situations (Beaton & Murphy, 1995). This distance does not mean that there is a lack of empathy for the victims of trauma (Regehr, Goldberg, & Hughes, 2002), but instead allows the FRs the space to act in emergency and rescue situations without becoming emotionally compromised (Cates, Zeller, & Faircloth, 2017). This emotional distance may also contribute to a common perception among FRs wherein they view non-FRs as distinctly different from themselves. This view can act to strengthen the ties with their professional peers, particularly in intense circumstances (Tajfel, 1982), but can also lead to isolation, both professional and personal, as the FR begins to believe that no one can understand their experiences (Mitchell & Bray, 1990; Regehr & Bober, 2005). This 'us/them' perspective is often accepted as a reality and a marker of professional identity to the extent that the FR is reluctant to admit the impact the work and the emotional distancing may have on them.

The emotional distance that helps insulate the FR from traumatic stress can also impact their family interactions (Regehr, 2005; Regehr, Goldberg, & Hughes, 2002). The experiences of the FR can prompt them to make demands of their family to ensure everyone's safety and well-being, particularly that of their children, where they may be perceived as hyper-vigilant and overprotective (Regehr, 2005). The family, and again particularly the children, may be reluctant to take on these new and restrictive behaviors as they do not share the FR's experiences and understanding of potential dangers (Paton, 2006; Regehr, 2005; Regehr, Goldberg, & Hughes, 2002).

Stigma Against Seeking Help

When the stressors that FRs experience reach the point that clinical intervention may be helpful, or necessary, many are reluctant to seek such help or disclose any information regarding mental health concerns or needs for fear of stigmatization (Kronenberg et al., 2008). FR personnel known, or suspected to have a mental health issue, or to have any emotional

concern that violates FR cultural norms, may fear a diminishment of status, loss of confidence in their abilities in the eyes of their team or themselves, of being labeled and isolated, or of being considered weak (Crowe et al., 2015; Schlossberg & Schlossberg, 2007; Warner, Appenzeller, Mullen, Warner, & Grieger, 2008). These potential fears, justified or not, can create a perception, and sometimes a personal shame, of not being worthy to act as a FR, and may drive them to conceal their concerns and deny the need for any mental health assistance (Alexander & Klein, 2001).

Implication for Mental Health Counselors

For a mental health counselor to work competently with FR personnel they must understand FR attitudes both professional and personal, the nature of FR work, and the costs that work may demand. A mental health counselor wanting to be trusted by FR personnel will have to commit to spending time with the people in question, understanding their motivations, and showing them that the mental health counselor is not just there to give them quick answers or do research (Kronenberg et al., 2008; Schlossberg & Schlossberg, 2007). They must understand that the work of being a FR will cause emotional stress that may develop into more severe issues (Regehr & Bober, 2005), and will impact the FR's family and community (Regehr, 2005).

To start to overcome the stigma FRs may have of mental health services the mental health counselor needs to understand the behavioral motivations of this population. Seeking mental health services may be seen as a sign of weakness or a loss of personal control. FRs, like their military counterparts, are generally action driven and respond to concrete perceptions that focus on observable changes. Behavioral changes can be more easily addressed in a manner that frames them as an improvement of skills, and as enhancing strengths and resilience rather than a mental health issue or "fixing" a broken person (Cates et al., 2017; Schlossberg & Schlossberg, 2007). In this clinical relationship the mental health counselor is expected to be the subject matter expert and may lose credibility if the FR has to educate the mental health counselor, or explain overmuch the details or verbiage of their specific professional area.

Additionally, the mental health counselor needs to understand the worldview of many FRs and appreciate their pragmatic perceptions of crime, injury, violence and death. A mental health counselor whose verbal or non-verbal expressions reflect a disapproval or abhorrence of the things that a FR does or lives through will quickly find themselves alone, figuratively or literally, in the counseling environment. A mental health counselor must be able to explore the dark corners of the FR's experiences and not avoid the gritty details that a non-FR may find shocking or revolting. It is only with an informed co-exploration of the genuine experiences of the FR that the mental health counselor is going to be able to assist in the strengthening of their emotional capacities and resilience.

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The Brain-Gut-Microbiome Axis and its Impact on Mental Health and Military Populations

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Researchers from multiple disciplines are working to integrate understanding about the brain gut microbiome and treatments to help with dysregulation. Military personnel live and operate in harsh and high stress environments that often require medications for infection and chemoprophylaxis. Stressful lifestyles and medication overuse can contribute to disruption of the bacteria, viruses, neurotransmitters, proteins, and other microbes present in the gut. Variations and changes to the types of microbes in the gut can influence physical and mental wellness and negatively impact mental health issues. Counselors have a responsibility to teach military clients about the link between the brain-gut-microbiome axis and mental health, encourage practical applications in daily life, and promote advocacy in interactions with other health professionals.

Keywords: brain-gut-microbiome axis, military mental health, neurotransmitter production, gastrointestinal health, probiotics

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Researchers have suggested the presence of a new frontier in psychological and biological anatomy and physiology; the human brain-gut-microbiome axis. This axis is important in numerous biological functions and disorders ranging from depression, stress regulation, behavior, and anxiety (Marchesi et al., 2016). The microbiota (bacteria, viruses, and other microbes located in the digestive/intestinal tract) communicate with the brain and other body organs through neurotransmitters and a network of nerves (Dinan, Stilling, Stanton, & Cryan, 2015). As mental health counselors, it is necessary to educate ourselves on the presence, function, and implications of the brain-gut-microbiome axis so that we can use this knowledge to the benefit of our clients. Operating from a holistic wellness model, the food ingested, the antibiotics and other medications taken, and the environments people operate in can take on significant meaning in their impact on emotional and physical functioning.

The intent of this manuscript is to introduce counselors working with military personnel to the critical importance and vast network of the brain-gut-microbiome axis. To better understand the complexities of this new area of neurophysiology, counselors must delve into the many different elements presented here to understand their interrelations, and to be able to present them to our military clients in a straight-forward manner. To be truly integrative, holistic, and wellness focused counselors, examining all aspects of the brain and body connection will lead to the best clinical results in therapy. This is particularly important when working with military personnel as they are a specialized population to study in this area due to the generality of their medical care, stressful environments, and diet during deployments. Currently, supplements to promote the health of the brain-gut-microbiome axis are not part of military medical protocol, and standard procedures of antibiotics and anti-malarial administrations may create difficulties for the service personnel in which the brain-gut-microbiome axis is a crucial element.

Brain-Gut-Microbiome Axis

The brain-gut-microbiome axis has been described as a new-found virtual endocrine organ. The brain-gut-microbiome axis, like other endocrine organs, is responsible for modulating immunity and impacting behavior, memory, and cognition (Marchesi, et al., 2016). The anatomy of the brain-gut-microbiome axis is extensive, including the major networks of the autonomic and central nervous systems, the neuroimmune and neuroendocrine systems, and the enteric nervous system, all of which are mediated by the neurotransmitters influenced by bacteria in the gut (Dinan et al., 2015).

The metabolic activity of the human brain-gut-microbiome is thought to be extraordinarily productive. It is believed that the weight of bacteria in the gut is relatively equal to the weight of the brain itself, and the genes encoded by the brain-gut-microbiome outnumber the number of genes in the human genome (Dinan et al., 2015). The gut microbiota is thought to contain trillions of various microbes including bacteria, archaea, viruses, and protozoa. In fact, gut microbiota cells outnumber human cells in the body by an estimated 1.3% - 10% (Cryan, 2016).

The types of bacteria present in the gut is thought to be upwards of 160 strains (Marchesi, et al., 2016). Some are known to be more important and influence conditions such as Irritable Bowel Syndrome (IBS), but researchers are unsure if there is a baseline for normal functioning as individual differences vary dramatically (Marchesi, et al., 2016). Prebiotic and probiotic treatments in research with rodents have shown significant prevention and treatment efficacy for diseases such as cancer, diabetes, obesity, and heart disease (Marchesi, et al., 2016). Despite these results, few studies have examined the relevance of these discoveries in relation to treatment in human subjects.

The brain-gut-microbiome axis communicates chemically in a bi-directional manner, with the brain sending motor, sensory, and secretory messages to the gut and the gut sending messages to the brain (Dinan et al., 2015). There are many pathways of the bi-directional communication, including the vagus nerve, spinal nerves, and the hypothalamic-pituitary-

adrenal (HPA) axis. The HPA axis is a complex network involving areas of the brain (hypothalamus and pituitary gland) and the adrenal glands, which are part of the endocrine system, located on top of the kidneys. Other components of the brain-gut-microbiome axis include neurotransmitters such as norepinephrine, dopamine, and serotonin; and short-chain fatty acids which can cross the blood-brain barrier (Dinan et al., 2015). Short-chain fatty acids may influence the production of a protein known as brain-derived neurotrophic factor (BDNF), known to play a critical role in neurogenesis (Dinan et al., 2015).

Brain-Gut-Microbiome Axis and Wellness

The presence and importance of the brain-gut-microbiome axis has been spoken of throughout history. In the early part of the last century certain bacterial strains were used to treat mental health concerns (Rogers et al., 2016). The use of bacterial treatment fell out of favor due to a lack of evidence of its benefits. But now, researchers can link dysbiosis in the brain-gut-microbiome to specific mental and physical disorders (Rogers et al., 2016). There is now hope and potential for bacterial treatment becoming part of medical and mental health practice.

The microbiome of the gut plays an important role in the mediation of shaping neurological development and function, which influences susceptibility to certain mental illnesses and physical disorders. The brain-gut-microbiome axis is implicated in certain areas of control in brain development, function and behavior. Bi-directional communication between the central nervous system (CNS) and the gut can influence psychiatric symptoms and disorders (Rogers et al., 2016). It is known that a wide array of fungi, bacteria, and viruses have evolved in symbiotic or detrimental relationships with insects, fish, and humans alike (Sampson & Mazmanian, 2015), and occurrences of detrimental consequences of parasitic microbiota on hosts impact areas of cognition, behavior, and locomotion (Sampson & Mazmanian, 2015). In humans and other mammals there is evidence of behavioral, neurochemical, and hormonal influences of microbiota (Sampson & Mazmanian, 2015).

Changes in the brain-gut-microbiome axis may be linked to disease. For example, decreased brain-gut-microbiome diversity and subsequent increases in inflammatory processes are seen in elderly with cognitive impairments and diseases such as Alzheimer's and dementia (Dinan et al., 2015). Pivotal stress points, or trauma, experienced by an individual also changes the brain-gut-microbiome diversity (Dinan et al., 2015). It is becoming apparent that daily decisions about diet, medical procedures, environment, and medications can influence our microbiota resulting in mental and physical effects (Lima-Ojeda et al., 2017). One instance of physical and mental effect is apparent in the use of anti-inflammatory drugs which have been reported to decrease depressive symptoms (Lima-Ojeda et al., 2017). Conversely, some psychotropic medications used for mental illnesses are reported to have anti-inflammatory effects.

The amount and differentiation of gut microbiota play a large role in controlling the production of serotonin, a key neurotransmitter in the body (Ridura & Belkaid, 2015). The impact of serotonin on the vast number of body/brain functions cannot be understated. Serotonin is key to human physiology because it affects functions such as gut motility, secretory reflexes, platelet aggregation, bone development, and cardiac functions (Ridura & Belkaid, 2015). Serotonin impacts mental disorders such as anxiety, depression, and schizophrenia. In addition to all the aforementioned impacts serotonin has on the body, a host of other conditions are being studied in relation to the functioning of serotonin receptors and levels of serotonin availability (Lin, Lee, & Yang, 2014). Research in a variety of fields are now focusing on the human brain-gut-microbiome axis as a way of understanding numerous disorders and developing brain-gut-microbiome focused treatments (Rogers et al., 2016).

Impact on Mental Health Disorders

Specific mental disorders that have shown evidence of being influenced by the brain-gut-microbiome are Major Depressive Disorder (MDD), Schizophrenia (Rogers et al., 2016) and Posttraumatic Stress Disorder (PTSD) (Leclercq, Forsythe, & Bienenstock, 2016). In MDD, certain biomarkers (biological substances which indicate health or disease)

can be seen, such as pro-inflammatory cytokines, specific antibodies, and changes in the HPA axis (Rogers et al., 2016). These changes are consistent with metabolic activity influenced by the brain-gut-microbiome axis. Schizophrenia biomarkers are often specific to genetically determined immunity and inflammatory processes (Rogers et al., 2016). In patients with schizophrenia, these markers show increases in cytokine levels and bacterial translocation (Rogers et al., 2016).

Psychological stress is thought to impact the permeability and function of the intestinal tract (Cryan & O'Mahony, 2011), and research has supported a potential link between PTSD and the environment of the brain-gut-microbiome (Leclercq et al., 2016). Stress reactions in individuals with depression have shown certain biomarkers (such as proinflammatory cytokines), and those individuals have been shown to be less emotionally resilient to stress (Leclercq et al., 2016).

People with depression and anxiety may have a greater risk of developing PTSD, and this is especially true of those who have experienced childhood trauma. Leclercq et al. (2016) determined that when rat pups are separated from their mothers after birth, an early life trauma, their brain-gut-microbiome exhibited long term alterations of gut bacteria, inflammation, and colonic permeability. This suggests a period of sensitivity of susceptibility of the brain-gut-microbiome axis to stressors, at least in rats, which demands further research in humans. This may also explain why some people under the same stress or trauma conditions as others do or do not develop psychiatric disorders (Leclercq et al., 2016). Identifying the period of sensitivity in humans and treating the brain-gut-microbiome axis with efficacious supplementation, diet, or other means may improve a person's chances of living a physically and mentally healthier adulthood.

Clinical trials have shown promise in the administration of certain bacterial strains of probiotics with the resulting effect of reducing depression and anxiety symptoms (Leclercq et al., 2016). Cognitive behavioral therapy (CBT) has been effective in treating many people with PTSD (Leclercq, Forsythe, & Bienenstock, 2016) and it is believed to be efficacious because it reduces the inflammatory profile which is also linked

to 'leaky gut', a type of gut permeability problem (Leclercq et al., 2016). Although the connection between CBT and the reduction in inflammation is not fully understood, it is thought to work by reducing stress and therefore reducing the activation of cells and components responsible for the production of inflammatory responses. Furthermore, certain gut bacteria are responsible for battling inflammation through cellular processes throughout the body (Leclercq et al., 2016).

For clinical treatment considerations, it is important to note the brain-gut-microbiome axis also plays a role in psychotropic medication metabolism. The wide variety of individual gut bacterial strains and metabolic activity may contribute to the medication's effectiveness and side effects experienced. For example, the brain-gut-microbiome has reductive impact on benzodiazepines and can influence liver enzyme production used in the breakdown and release of medications outside of the gut (Rogers et al., 2016).

Psychobiotics and Treatment

Psychobiotics are live bacterial strains (i.e. lactobacillus and bifidobacterium families) that are known to influence neurotransmitters, such as serotonin, and can have a beneficial impact on physical and mental health (Kali, 2016). Psychobiotics may also have significant implications for the future of medicine and behavioral health as current psychotropics have significant side effects that may be avoided with the use of psychobiotics (Kali, 2016). The neurotransmitters produced in the gut by psychobiotics have been implicated to help sleep, mood, cognition, appetite and many other important areas of life (Kali, 2016). Other potential therapies aimed to assist the health of the gut include the use of psychobiotics in the form of a combination of probiotics and prebiotics (Marchesi et al., 2016).

Probiotics are live strains of bacteria believed to be beneficial to the gut flora population (Marchesi et al., 2016). Dinan (2015) stated that a probiotic cocktail may be a potential treatment for emotional stress. The cocktail was given to a patient under a functional magnetic resonance imaging (fMRI) scanner and the probiotics given seemed to alter the

processing of emotionally reactive material (Dinan, 2015). Prebiotics, in contrast to probiotics, consist of non-digestible carbohydrates in a fermented form believed to influence and promote the metabolic activity of the gut microbiota (Marchesi et al., 2016).

Treatment options to aid the colonization and metabolic activity of the brain-gut-microbiome include administering probiotics, prebiotics, and fecal transplants (Rogers et al., 2016). Fecal transplants are the transfer of microbiota in fecal matter from one host to another, and have been used for years by physicians to increase the diversity of bacteria in the intestinal tract of individuals who have reduced loads due to various reasons.

Many people have co-occurring gastrointestinal disorders and mental health diagnoses (Wang, Guo, & Yang, 2015). In certain conditions, the use of antidepressants and anti-inflammatories have helped reduce symptoms of gastrointestinal issues (Wang, Guo, & Yang, 2015). Specifically, the use of two strains of beneficial bacteria, *Lactobacillus Helveticus* and *Bifidobacterium Longum*, have shown a reduction of both anxiety symptoms and cortisol in rats and humans respectively (Cryan & O'Mahony, 2011). Another probiotic, *Lactobacillus Reuteri*, helps regulate the immune system, decrease anxiety symptoms, and reduce stress in mice (Cryan & O'Mahony, 2011). Interestingly, many individuals suffering from mental disorders also suffer from gastrointestinal disorders thereby giving credence to the connection of the two systems (Sampson & Mazmanian, 2015).

Gastrointestinal Problems in the Military

Military leaders consistently seek to improve resilience of their personnel through education and training. Education about the function and importance of the brain-gut microbiome, diet, and supplementation of psychobiotics may be the missing piece in the puzzle to preventing and treating stress disorders and improving resilience. Military personnel have a high rate of gastrointestinal disorders and related conditions. Some of the top conditions include diarrhea, constipation, heartburn, dyspepsia, and non-cardiac chest pain thought to be induced by acid reaching the esophagus (Wang, Guo, & Yang, 2015).

Harsh and undeveloped environments, bacterial and viral infections, dietary habits, stress, and trauma are thought to contribute to the development and chronic nature of gastrointestinal issues. Even after treatment with antibiotics or other medications, chronic symptoms persist for many military personnel (Wang, Guo, & Yang, 2015). Furthermore, diets of military personnel often include high doses of caffeine in the form of coffee and energy drinks, high levels of salt intake, and lack of fresh, non-processed foods which contributes to digestive issues.

Nutrition

Ancient Greeks believed food to have medicinal qualities which researchers are again finding to be significant (Lima-Ojeda, Rupprecht, & Baghai, 2017) as diet and stress may induce brain-gut-microbiome dysbiosis. Military populations are put in environments of extreme mental and physical stress, and there are no appropriate dietary guidelines for these service members. Similarly, the chronic stress military personnel endure may shape their type and amounts of gut bacteria, making them more susceptible to cognitive, behavioral, physical, and psychological issues (Allen, Dinan, Clarke, & Cryan, 2017).

Adding to the problem is the recommended dietary guides supporting a diet high in protein but missing much needed dietary fiber. This fiber acts as a prebiotic, feeding the gut microbiota which in turn produces and influences neurotransmitters and other chemicals and proteins needed for health and mental well-being (Clark & Mach, 2016). Over time, depression, anxiety, and gastrointestinal disturbances can develop from a gut dysbiosis which can be helped with a change in diet and supplements featuring prebiotics and probiotics (Clark & Mach, 2016).

Antibiotics and Anti-Malarial Medications

Two of the most prescribed medications pertinent to the brain-gut-microbiome axis discussion with military personnel on deployment and in combat are antibiotics and anti-malarial medications. Although there is no prescription rate documentation for active duty military personnel, prescription antibiotic rates for civilians are widely overused and often inappropriately (Hicks et al., 2015). Medications such as these can severely

disrupt the balance of the brain-gut-microbiome by impacting neurotransmitters, such as serotonin, for extended periods of time. This disruption negatively impacts the diversity of the gut flora and creates gastrointestinal symptoms in humans and mice (Cryan & O'Mahony, 2011). Even short rounds of antibiotic use, such as a seven-day treatment, can impact the biodiversity of the gut flora for up to two years (Jernberg, Lofmark, Edlund, & Jansson, 2007). Consequently, infections of the gastrointestinal tract can also cause gastrointestinal distress and inflammation (Cryan & O'Mahony, 2011). It is not clear, however, whether this type of short term dysbiosis, as seen with infections, creates behavioral changes like those seen in antibiotic or diet-induced dysbiosis (Cryan & O'Mahony, 2011).

Anti-Malarial Concerns. The civilian population is more heterogeneous in terms of age, sex, physical health and individual health considerations than your average military personnel, and, military personnel are in better general health than the average civilian (Fukuda, Raczniak, Riddle, Forgione, & Magill, 2017). Due to these differences in populations, many of the limiting conditions which would assist a physician in making the determination of which anti-malarial medication to use are not present in military populations. The military deploys in large groups, sometimes rapidly, and does not have the time or resources available to perform individual assessments (Fukuda et al., 2017). Furthermore, the military follows the Federal Drug Administration guidelines, except under specific conditions, and so has mandated first, second, and third line medication protocol depending on the area of operation (Fukuda et al., 2017).

Military personnel are educated in a group and are encouraged to seek out the unit medic, if available, for individual concerns about side effects. Military unit commanders, not the military physicians, are responsible for the oversight of the Force Health Protection (FHP) program for personnel regarding anti-malarial medication administration and compliance (Fukuda et al., 2017). The unit commander is not a physician, nor does he or she necessarily know the specifics, limitations, interactions, or side effects regarding anti-malarial medications.

Many of the environments military personnel deploy to present issues with malaria-infested mosquitos, which has caused the Department of Defense to mandate malaria chemoprophylaxis for deployed service members (Brisson, Woll, & Brisson, 2012). However, there is danger from prescribing medications for chemoprophylaxis (Livezey, Oliver, & Cantilena, 2016) due to the side effects of many anti-malarial medications, such as Doxycycline and Mefloquine.

Side effects may prompt personnel to skip doses or not take them at all, even though service members can be punished as a consequence (Brisson et al., 2012). Personnel who did not skip their doses reported side effects including digestive distress, anxiety, and vivid dreams (Brisson et al., 2012). Historically, the compliance rate for service members taking anti-malarial medications has been low, perhaps less than 50% (Brisson et al., 2012). Side effects noted with Mefloquine use are associated with increased risk of depression, central nervous system issues, insomnia, and - in severe cases - psychosis. This increased risk may be due to neurophysiological side effects and may include problems with orientation, psychomotor speed, attention and in the areas of verbal memory, visuospatial and executive functioning (Peterson et al., 2011).

When comparing Mefloquine to other anti-malarial medications, studies have shown higher incidences of depression with Mefloquine use. In 2002, the FDA put out a warning for Mefloquine to limit its use to those not experiencing psychological or seizure disorders (Peterson et al., 2011). Case reports on Mefloquine reactions find females are more likely to have severe reactions than males (Peterson et al., 2011).

Currently, Mefloquine is still used as a chemoprophylactic in areas (such as Africa) that have malaria medication resistant strains of the disease (Livezey et al., 2016). The military has moved Mefloquine to its third line anti-malarial drug under Doxycycline and Malarone, significantly reducing its use for deploying military personnel. More can and should be done to provide uniform education to military personnel on side effects of mandatory anti-malarial medications, compliance, and general health concerns of taking these medications long term.

Conclusion

In summary, research is now showing the brain-gut-microbiome axis plays a critical role in most functions of the human body. It operates in a bi-directional manner through creation of various neurotransmitters, hormones, short-chain fatty acids, and proteins. The diversity of the microbes present in the brain-gut-microbiome vary through lifespan development with periods of lesser amounts and diversity from birth to three years of age and again in late adulthood. Many variables, including trauma and stress, can influence the diversity of the brain-gut-microbiome. Certain medications, such as antibiotics, can diminish the functionality and health of the gut microbiota. Changes to the gut microbiota can produce changes in behavior, cognition, memory and other crucial areas of brain function. Prebiotic fiber and probiotic strains have been shown to increase the health of the brain-gut-microbiome. Diet and nutrition can harm or help the health of the brain-gut-microbiome and therefore the quality of life for an individual. Finally, significant improvements must be made in military medicine to promote knowledge of the function of the brain-gut-microbiome axis and the health implications in military populations.

The significance of being able to treat or improve certain mental and physical disorders with beneficial bacteria contained in probiotics would be advantageous for the medical community and patients alike. Mental and physical healthcare should include testing of the gut flora in terms of type and count via fecal testing. Providers should also prescribe probiotics in conjunction with other treatment options. Additionally, antibiotics, anti-malarial medications, or other medications which interfere with the activity and population of gut flora should be considered carefully. There is also need for medical and psychological review of a service member's medical file prior to deployments in which anti-malarial medications are mandated (Peterson et al., 2011). Additionally, care should be taken to discuss side effects and when to seek assistance if experiencing side effects.

Implications for Clinical Mental Health Professionals

The knowledge of a link between the brain-gut-microbiome axis and mental health brings with it a responsibility for clinical mental health professionals. Now more than ever, discussion of gut health and its impact on physical and mental wellness and disorders need to be routine protocol.

First, professionals working with military populations have a duty to educate themselves about the growing research of the brain-gut-microbiome axis and its links to not just mental illness, but also mental wellness. Professionals must seek out training, articles, and other forms of information to widen their breadth of knowledge on the topic. Creativity may be needed to acquire appropriate and practical information.

Second, clinical mental health professionals should speak with other professionals that treat service members within different scopes of practice. The brain-gut-microbiome axis and all of its implications are too large to take on from a single approach, therefore a multidisciplinary stance is needed. Disciplines outside of counseling that may be of assistance are gastroenterology, neurology, and primary care, to name a few. Building collaborative relationships with other professionals will enhance the coverage of care and help all providers communicate the specific needs of a military client.

Third, clinical mental health professionals must ensure intake biopsychosocial forms include information about elements known to influence the brain-gut-microbiome such as discussed in this article: diet (including caffeine and energy drink consumption), antibiotic/anti-malarial medications, supplements (probiotics), gastrointestinal problems, and any recent deployments or chronic/severe stress.

Inside the therapeutic environment, it may be important to have clients document or journal those items listed above to see if there are trends in their behaviors which become apparent. For example, documenting behaviors such as eating too much sugar or drinking too much beer, which feeds detrimental bacteria in the gut, may be linked to negative physical and mental health symptoms. Military members are often solution focused so this type of therapy may enhance the efforts needed to change

lifestyle habits known to increase gut health. Another example of discussions with military clients could be the inclusion of how chronic stress can be mitigated through diet, supplementation, and attention to physical sensations beginning in the gut. Psychoeducation about the brain-gut-microbiome and lifestyle choices may be one of the best things we can offer our clients so they can become advocates for themselves in daily life and in the offices of other health professionals.

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