Leaving it in the Sand: Creatively Processing Military Combat Trauma as a Means for Reducing Risk of Interpersonal Violence

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ABSTRACT
Posttraumatic stress disorder (PTSD) is characterized, in part, by symptoms of arousal, which may result in anger, hostility, and aggression toward others. These symptoms, and the manifestation of interpersonal violence and aggression, are problems faced by approximately a third of military service members returning from conflicts in Iraq and Afghanistan. The authors discuss how the neurobiological effects of trauma reduce the effectiveness of traditional talk therapy and frame the creative approach of sandtray therapy as a means for processing through trauma events and reducing PTSD symptomology within the military population, thereby reducing risk for interpersonal violence. Instructions for a sandtray intervention and a case example are included.

KEYWORDS
Creativity in counseling; interpersonal violence; military; posttraumatic stress disorder; sandtray therapy

Current research indicates that interpersonal aggression and violence are problematic for approximately one third of the military service members returning from Iraq and Afghanistan (Jakupcak et al., 2007; Killgore et al., 2008; Sayer et al., 2010; Teten et al., 2010; Thomas et al., 2010). Situational factors that exacerbate stress and vulnerability significantly increase the risk for violence (Elbogen et al., 2014), and spousal reports of intimate partner violence have demonstrated the resulting damage of such aggression (Kern, in press). The American Counseling Association’s current presidential initiative against bullying and interpersonal violence aims to identify means of addressing such aggression from individual to systemic levels. The clinical utilities presented herein are in response to this call for action.

Effectively processing through trauma and decreasing symptoms of posttraumatic stress disorder (PTSD), particularly those that result in hyperarousal, is likely to protect against the possibility of engaging in violence or aggression. Unfortunately, navigating traumatic memories can be a challenging process, especially when using talk therapy. Initial traumatic memories have few narrative elements and are often “relived as isolated sensory, emotional, and motoric imprints of the trauma, without a storyline” (van Der Kolk, 2000,

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Within PTSD, the central nervous system’s natural ability to synthesize and integrate traumatic experience into a semantic memory breaks down (van Der Kolk, 2000). Thus, interventions that do not ask for verbalization, but instead access the creative right hemisphere of the brain, may serve as useful tools for clinicians working with this population.

**Military interpersonal violence**

Interpersonal violence within the military is prevalent, possibly because of the social acceptance of violence and aggression required for military training and the systemic structures necessary for combat readiness and survival (Burk, 2008; Hall, 2011; Kern, in press). In 2014, 16,287 reports of spouse abuse were made, and 7,464—less than half—were determined to be substantiated (U.S. Department of Defense, Family Advocacy Program Report [DoD], 2014). Sixty-five percent of perpetrators of substantiated abuse in the military were male (U.S. DoD, 2014), and of the 11 reported fatalities due to domestic violence, nine were committed by male perpetrators—all of whom were on active duty military service. Two of the nine perpetrators, and one of the victims, had been previously reported for abuse (U.S. Department of Defense, Family Advocacy Program Report, 2014). In addition, the prevalence of total reported child abuse and neglect within military families increased by 7.7% from 2013 to 2014, and the number of substantiated reports rose by 9.8% (U.S. DoD, 2014).

In addition to family violence, service members may also struggle with interpersonal aggression and violence toward friends, coworkers, or strangers. In a 2010 study of Iraq and Afghanistan combat veterans using Veterans Administration care, researchers found that over half (57%) of their participants reported an increase in problems controlling anger, and just over a third reported thoughts and concerns about hurting someone else (Sayer et al., 2010). Increased use of alcohol and substances, and dangerous driving, were also reported by approximately a third of the participants (Sayer et al., 2010). Similarly, comorbidity of PTSD and alcohol misuse or aggressive behavior was found in almost half of the participants in Thomas et al.’s 2010 study. They discovered that severity of these issues remained stable from 3 to 12 months postdeployment for active duty military, but significantly increased in National Guard service members (Sayer et al., 2010).

**Posttraumatic stress and aggression**

Psychological stress is inherent to military combat and training exercises, as it is harnessed and used as a weapon (Nash, 2007). Combat stress, or posttraumatic stress, “is not a by-product or side effect that can be sanitized away” but is inescapably infused within the nature of combat (Nash, 2007,
Unfortunately, the aftermath of this trauma can severely disrupt service member’s lives and result in elevated levels of aggression due to trauma event triggers that result in perceived threat. Unlike many incidences of trauma in which survivors take a passive role as the trauma event is imposed on them, military service members play an active part in creating their trauma (Van Winkle & Safer, 2011). This active role is thought to account for elevated arousal symptoms such as anger, aggression, and hostility. Although PTSD does not automatically result in violence, it is linked to elevated rates of interpersonal aggression thought to be due to these arousal symptoms (Van Winkle & Safer, 2011). In addition, service members may abuse substances in an attempt to self-medicate and escape reminders of trauma (Wilk et al., 2010)—falling under the avoidance symptoms of PTSD—which can result in lowered inhibitions and increased aggression toward others (Martin et al., 2010; Slep, Foran, Heyman, & Snarr, 2011).

**The neurobiology of trauma**

Trauma events have a significant neurobiological impact on the brain. Those individuals who meet partial or full criteria for PTSD have shown increased physiological arousal symptoms such as elevated heart rate, blood pressure, and skin conductance when exposed to reminders of the trauma (van Der Kolk, 2000). These autonomic processes immediately send individuals into a state of hyperarousal, and are responsible for the “fight or flight” phenomenon (Siegel, 2010). Over time, the triggers may become smaller or have a weaker association with the trauma but continue to wield the same significant response—leaving some individuals at risk for overcompensation of perception of threat (van Der Kolk, 2000). Similarly, hyperarousal to neutral stimuli is common when overstimulation to the central nervous system occurs during the trauma event. This hyperarousal can result in an abnormal startle response to stimuli that is neutral but perceived as threatening. Thus, the challenges that accompany the integration of trauma memories are physiologically mirrored “in the misinterpretation of innocuous stimuli as potential threats” (van Der Kolk, 2000, p. 15). Military training conditions service members to objectively assess a situational threat and to eliminate the threat as quickly as possible (Burk, 2008; Hall, 2011). This training, which is necessary for combat survival, is likely to augment any resulting hyperarousal symptoms of PTSD. Consequently, service members may be more likely to engage in aggression or violence to eliminate the perceived threat.

Early researchers conducting neuroimaging studies discovered that when individuals who demonstrate symptoms of PTSD are exposed to vivid narratives of their trauma, activity in the left inferior hemisphere of the brain is strongly depressed (Rauch et al., 1996). This area of the brain—called Broca’s area—is believed to be responsible for translating personal experience into
verbalized communication. Simultaneously, right-brain activity is increased, particularly in areas of emotional arousal (Homeyer & Sweeney, 2011; Rauch et al., 1996). This function of the central nervous system, when exposed to traumatic memories, often causes individuals to have difficulty verbalizing traumatic experiences.

Similarly, Siegel (2010) described this same process, stating that the role of the integrative prefrontal region is “monitoring and modifying the firing patterns of the lower limbic and brainstem areas” (p. 89). He stated that the integration of the left and right brain in the pre-frontal region is the key to balance for the nervous system. Obviously, “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 vital to healthy functioning. These challenges in verbalizing trauma demonstrate a critical need for counselors to use creative methods with clients to process this information.

Posttraumatic growth and reducing aggression

Posttraumatic growth, the positive changes that emerge from coping with a personal challenge or trauma, may be a protective factor against aggressive behavior due to posttraumatic stress (Tedeschi & McNally, 2011). Steps identified specifically for combat veterans to achieve posttraumatic growth include (a) understanding the trauma response, (b) development of emotional regulation, (c) engaging in constructive self-disclosure around the aftermath of the trauma, (d) developing a trauma narrative with posttraumatic growth domains, and (e) developing life principles that can withstand challenges (Tedeschi & McNally, 2011). Similarly, an increase in psychological resilience, self-determination, and management of medical and psychiatric symptoms is likely to act as a protective mechanism and minimize the risk of violence in military service members with PTSD symptoms (Elbogen et al., 2014).

Using a creative method such as sandtray therapy, which allows access to certain neurobiological functioning and processes, offers the potential to foster these protective factors and the steps toward posttraumatic growth in ways that traditional talk therapy cannot. It is therefore reasonable to expect that effectively processing through trauma and mitigating PTSD symptoms through this creative method may lead to a subsequent reduction in the likelihood for aggressive behavior. Specifically, a decrease in severity of the PTSD symptom clusters of hyperarousal and avoidance, which may be accomplished through alcohol or other substance use, is likely to reduce the risk for violence (Martin et al., 2010; Slep et al., 2011; Van Winkle & Safer, 2011).
Sandtray

Sandtray is a nonverbal and expressive form of psychotherapy where the sandtray and miniature figures are the mode of communication. The client can project emotionally charged issues onto the figures, creating a safe method of exploring and discussing various issues (Homeyer & Sweeney, 2011). The description of PTSD within the Diagnostic and Statistical Manual of Mental Disorders, 5th ed. (American Psychiatric Association, 2013) has a strong focus on sensory symptoms (Homeyer & Sweeney, 2011) within each of the four diagnostic clusters—avoidance of distress, intrusive thoughts and memories that cause the individual to re-experience the trauma, negative cognitions and moods, and hyperarousal and reactivity. It seems reasonable, then, to theorize that trauma may be best met and treated with a sensory-based intervention.

Sandtray allows for a safe sense of distance from the trauma, creating a therapeutic detachment which permits a client to process through the trauma event without becoming severely overwhelmed or distressed (Schaefer, 1994). This safety is frequently resultant from several key properties of sandtray:

- Symbolization through the use of miniatures can create a therapeutic detachment.
- The as-if element, through which clients can act out various scenarios and control that which was uncontrollable during the trauma event.
- Projection allows the client to act out difficult or frightening emotions through the miniature, rather than verbalizing them themselves.
- Displacement of emotions also allows the client to express frustration and anger in a safe way, through use of the miniatures (Schaefer, 1994).

These properties are particularly salient to combat veterans given the cultural stigma that exists around seeking mental healthcare. Expression of fear or lack of control may be interpreted as weakness, rather than a natural trauma response, and many service members cannot express intense anger toward those who are hierarchically above them (Hall, 2008). The therapeutic distance granted by sandtray may create a safe space to work through these challenging emotions (Homeyer & Sweeney, 2011).

In addition to granting a safe distance for processing, Badenoch (2008) emphasized that the use of sandtray can “awaken and then regulate the right-brain limbic processes” (p. 220), allowing the client successful mobility within their left brain for additional insight, perspective, and development of symbolism into words. Sandtray may also assist those who are stuck in the left brain and denying painful feelings to process the story in a safe, less direct way, offering integration and a calm central nervous system. It is vital that the counselor meet the client where they are. Rather than forcing a client to jump between
hemispheres, the counselor instead aims to “open the highway for the right to offer itself to the left” (Badenoch, 2008, p. 224). This approach maintains the safe therapeutic environment for emotional work to take place.

**Intervention directives**

Much like any other intervention, sandtray application is likely to be unique to the counselor. However, there are some static components necessary for the appropriate use of this intervention. Homeyer and Sweeney (2011) provided a 6-step model 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 should include making sure that miniature figures are arranged neatly on the shelves by category (people, animals, vehicles, etc.), so that they are easily accessible to the client (Homeyer & Sweeney, 2011). Perryman and Anderson (2011) emphasized that miniatures should represent various emotional themes such as nurturing, imaginary, and aggressive and conflictual elements. Figures expressing movement and stability, such as vehicles and rocks, are important and can represent multiple themes, archetypes, aesthetic considerations, and natural elements. Various types of people and animals, hopeful elements (e.g., wishing wells and magic lamps), a variety of buildings, and illuminating objects (e.g., torches, lights, and candles) are useful for this work. Symbols representing birth, death, monsters, religious and spiritual themes, as well as broken and fragmented objects add variety and depth to the sandtray shelf (Perryman & Anderson, 2011). Miniatures should be representative of the client’s world, and in the case of working with military populations should also be sure to include various firearms, military ID tags, soldiers/airmen/sailors/marines, fighter planes, helicopters, Humvees and tanks, cannons, ships, and other appropriate military elements.

The sand should be flat and smooth, with no figures buried underneath from any previous sessions (Homeyer & Sweeney, 2011). A chair for the counselor should be placed out of the way, but close by and with a clear view of the client and the sandtray. There should be room for the client to walk around the sandtray, and to and from the miniature figures (Homeyer & Sweeney, 2011). The counselor can introduce sandtray to the client in a variety of ways. If the service member is focused on a particular trauma, the counselor may ask them to recreate that event in the sand, or to use the sand and miniatures to express feelings after a specific anxiety provoking event (e.g., being in a loud and crowded place). A more nondirective approach is to ask the client to use the sand and miniatures to create a scene that reflects their emotional or physical world (Homeyer & Sweeney, 2011). Although the client creates the sandtray, the counselor sits back and observes with no, or minimal, commentary. It is important not to rush the
client—some may take very little time, whereas others may deliberate over their choices (Homeyer & Sweeney, 2011).

Postcreation, the counselor will observe the sandtray from both a visual and emotional perspective, looking at the concrete setup as well as the emotional metaphors played out by the types and placement of miniatures and the emotional response that is evoked in the counselor. The counselor may ask the client to discuss the meaning of the scene they have created as a whole, or piece by piece (Homeyer & Sweeney, 2011). The client’s feelings, words, and body language should be reflected by the counselor, just as they would in traditional talk therapy. This allows for the client to feel connected and understood, maintaining the therapeutic environment. It is important not to push clients if they do not want to explain a particular aspect of the sandtray—it is likely this aspect will continue to come up and they may feel more comfortable discussing it in the future. Even if they never discuss the details of the tray, they are still processing through the issue simply by engaging it within the sandtray (Homeyer & Sweeney, 2011).

Counselors may find it beneficial to use a tray that can be easily turned in order for the client to gain additional awareness and other perspectives of their story (Perryman & Anderson, 2011). At this point in the session, the counselor would ask the client if he minds the tray being turned. If the client agrees, he will be instructed to stop the tray if at any point he has an awareness or change in perspective that he would like to discuss. Once a full turn of the tray has been completed, the counselor may direct the client to change the story to look the way he would like for it to end. Continuing to reflect feelings, body language, and words, they complete a second tray rotation, stopping to process as directed by the client. This technique allows the client to process any right brain activity and reconstruct their story in the left brain, offering an opportunity for integration. Because of the frequent external locus of control felt by military service members (Hall, 2008), this practice may be particularly helpful for integrating trauma memories in this population. Allowing the client to change the outcome of a trauma event, or to process through an event to realize that they were not responsible for the outcome, is likely to be therapeutic.

At this point the counselor will note the organization of the sandtray world using the following descriptors: empty, unpeopled, closed in, rigid, disorganized, or aggressive (Homeyer & Sweeney, 2011). When it is time to end the session, the counselor can ask the client if they would like to put the figures away on their own, together, or if they would like the counselor to do this after they have left. It is important never to touch the sandtray or the figures in it without the client’s permission, both in postcreation and in cleanup (Homeyer & Sweeney, 2011). Sessions should be documented through a thorough description of the sandtray and the client’s discussion, and, with the client’s permission, photos can be taken of the sandtray before cleanup to thoroughly document the created scene.
Case example

Michael is a medically retired Army veteran. He completed four tours of duty in combat zones—three in Iraq and one in Afghanistan. He presented to his first session with concerns of returning symptoms of PTSD, particularly nightmares, intrusive thoughts, and severe hyperarousal symptoms (i.e., anger, aggression, and hostility). Michael reported a particular challenge with “road rage” and the perception that other drivers were going to do harm to him and his passengers. This anger arousal, stemming from high anxiety levels, frequently resulted in verbal aggression to other drivers and sometimes escalated to following someone in an attempt to physically engage them. He shared one event in which he followed another driver into a parking lot and physically assaulted the individual by grabbing him by the shoulders and pinning him against his vehicle. Michael articulated the understanding that his combat trauma and resulting anxiety was a large component of his threat perception but was unsure of what to do with this awareness.

Michael had been in counseling previously and stated that being able to simply talk about his experiences was often helpful for him. After several sessions, in which he discussed how his symptoms contributed to stressful situations in his personal and professional life, he shared that he was finding it difficult to directly address the experiences in combat that he often relived through his nightmares. He was clearly upset by this, and attempted to share an experience in which he thought he was going to die during an event that occurred during a Humvee convoy in Iraq. He stumbled over his words, frequently pausing, seemingly lost in thought. He eventually expressed his aggravation over not being able to convey the experience as he wanted, and despite normalization of this, he left the session visibly frustrated.

In Michael’s next session, I asked if he would like to try something different. I explained the benefits of sandtray therapy and how it helps the brain access and express traumatic experiences differently than verbal expression. He seemed skeptical that I was going to have him play, but agreed to try it. Initially, he ran his fingers through the sand, commenting on the different feel compared to what he would find at the beach. He had previously shared that he found himself more at ease when working with his hands, particularly woodworking or welding, so I was pleased to see him engaging with tactile sensation. I sat back quietly and watched him work, and he appeared to become engrossed in his activity.

After Michael had spent time creating mounds of sand and digging out rivers, he leveled the sandtray to a flat surface again. He turned to the figurines and carefully considered his options. He began by taking various snake forms and burying them just beneath the sand, all around the tray. He then set up a fenced in area in one corner of the tray, and buried a non-descript human figurine in the sand so that only his head was above ground, just outside the fence. He placed several soldier figurines inside the fence, close together. Leading away from this, down one side of the tray, he placed a line of three trucks equidistant from each other. In the opposite
corner of the tray he formed a small mound of sand and placed a rifle in the sand, perpendicular to the ground. I watched him pause a moment here, keeping a few fingers on the rifle, as he took a deep breath and closed his eyes. He let out a sigh and began working again, this time choosing a female and a child figure, which he put in another corner by themselves, facing away from the center of the tray. He dug a narrow, deep line around them, separating them from the rest of the scene. Finally, he chose another uniformed figure and placed it directly in the middle of the tray, facing toward the fenced in soldiers, away from the mound of sand with the rifle and the corner with the woman and child. He studied the tray for a moment, and with a sharp nod he looked up at me and said, “I think I’m done.”

Michael processed his sandtray by telling me the story as it played out within the tray, rather than connecting the memories to himself. I prompted him by asking him to tell me about the scene. He started by sharing that the snakes represented the obscurity of the enemy, who could be anywhere but were often hidden until they were ready to be seen—providing a very real threat to the other figures in the tray. The fenced area represented the forward operating base (FOB), which was a safe zone. He stated that the figures standing inside of it could depend on each other when situations got tough. Michael gestured to the figure buried up to its head in the sand and told a story about how one of the figures had worked with an Iraqi interpreter, who stopped coming in one day. Several weeks later, a box arrived at the front gate of the FOB containing the interpreters head. When I asked about the rifle in the sand he stated that it was meant to be a battle cross, but that I was missing the helmet and boots to complete it. He had put it in place to commemorate those who had lost their lives fighting with the figures who were safe behind the fence of the FOB. The woman and child, he explained, were the wife and daughter of the soldier placed in the middle of the tray. They were separated from the rest of the scene by the line in the sand, and Michael shared that their backs were turned because they did not want to be a part of this world. He said they struggled to connect with the figure in the middle because they wanted him to be the same person he was before the Army, and that his back was turned to them because he felt a greater connection to his military family. Michael declined to share a story about the trucks, simply shaking his head when I asked him to tell me more about them. He ended by telling me more about the middle character, who was a soldier separated from his military family. He stood alone in the middle of the tray because he did not have a place to belong or a purpose to fulfill. He faced toward his military counterparts, wishing he was still with them.

As Michael’s sessions continued, he began to share stories as himself rather than utilizing projection or displacement onto the figures. He repeated the story about the decapitation several times, each time being able to verbalize more detail and emotion. He also revealed the trauma event behind the trucks—an incident in
which he had little control and believed that he would die. Sometimes the tray reflected a specific trauma, and other times, like the initial tray, it contained multiple themes. Most of the time the figures were static, but occasionally he had had them interact or move around one another. Michael began to experience fewer sleep disturbances and was able to tolerate emotions of frustration and irritation without immediately escalating to verbal and physical aggression. It was still painful to revisit the memories, but no longer unbearable. In one of our final sessions, Michael recreated much of his initial tray, but put a second figure in the middle, back to the back with the soldier. He shared that there was still a large part of him that still longed to be connected with the military, but that he was also learning to focus on what lay ahead for him. He was beginning to reconnect with his wife and child and was expecting the birth of his second daughter in the upcoming months. Anger and irritation was still a challenge in some instances, but they manifested less often and with less severity than when Michael first presented for services. He still sometimes perceived threat from others, particularly while driving, but did not react severely. He shared feeling a greater sense of control over his behavior and emotions and was planning to acquire and train a service dog to help him manage continuing difficult emotions.

Conclusion

As military service members return home from conflicts in Iraq and Afghanistan, the necessity for mental health services for this population has become apparent (Blais & Renshaw, 2013; Miles, 2010). Most find a way to assimilate into non-combat culture, but many struggle with symptoms of PTSD, including intense bouts of anger and aggression (Maguen et al., 2010). Researchers have found that these arousal symptoms of anger, hostility, and aggression are typically present in veterans of the Iraq and Afghanistan conflicts within the first few years of returning from combat deployments (Jakupcak et al., 2007). In addition, many traumatic aspects of combat, including killing an enemy or nonhostiles (i.e., friendly), surviving a potentially fatal situation, immediate contact with wounded or deceased, and witnessing severe violence, injury, or death, were found to greatly increase likelihood of verbal and physical aggression and violence (Killgore et al., 2008). Thus, it is essential that counselors are knowledgeable and competent in techniques to effectively treat trauma, thereby decreasing this risk, within this population.

Many existing trauma-focused treatments (e.g., eye movement desensitization and reprocessing, trauma-focused cognitive behavioral therapy, etc.) require verbal participation and narration of trauma from the client, extensive (and sometimes expensive) training for the counselor, or both. Sandtray therapy is a comparatively inexpensive and uncomplicated option that can be learned via instructional manual and practice, making it accessible to most counselors. In addition, sandtray techniques do not require immediate, if any, trauma narration due to the
processing taking place through the symbolism within the tray. This feature may be particularly salient when considering the use of sandtray to reduce PTSD symptomology and process through trauma, due to the neurobiology components that can halt progress of verbally expressing experiences and emotions surrounding trauma events.

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**References**


