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Artistic Transformation: The Benefits of Music Therapy in U.S. Veterans

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ARTISTIC TRANSFORMATION: THE BENEFITS OF MUSIC THERAPY IN U.S.
VETERANS

by

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B.G.S., Southeast Missouri State University, 2013

A Research Paper
Submitted in Partial Fulfillment of the Requirements for the
Master of Science Degree

Department of Rehabilitation
in the Graduate School
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RESEARCH PAPER APPROVAL

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A Research Paper Submitted in Partial
Fulfillment of the Requirements
for the Degree of
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in the field of Rehabilitation Counseling

Approved by:

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MAJOR PROFESSOR: Dr. Thomas Upton

Since the start of the ongoing wars of the 21st century, the United States has seen an increase in the number of soldiers with Traumatic Brain Injuries and PTSD in the aftermath of these conflicts. Often times, soldiers suffering from these disabling symptoms are treated with conventional medical interventions. Alternative treatments like music therapy have not been utilized to their fullest potential within this population. This type of therapy, along with its effects on patient outcomes, were examined and researched. The findings suggest alternative therapies may be quite beneficial to those suffering from the side effects of TBI and PTSD.

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CHAPTER 1

INTRODUCTION

Since the start of the conflicts in Iraq and Afghanistan, the United States has seen a significant increase in the number of soldiers with Traumatic Brain Injuries and Post-Traumatic Stress Disorder (PTSD). According to the National Center for PTSD, 22% of all combat casualties from these two conflicts are brain injuries, compared to 12% of Vietnam related combat casualties. One reason for the increase in these types of wounds is the amplified use of improvised explosive devices (IED). The use of IEDs in warfare combined with the changing nature of combat tactics has proven to be trying on American troops. Although many have been left with mental health issues from past wars, it hasn't been until the battles of the new millennium that prevalent diagnosis and treatment have occurred.

Soldiers suffering from these disabling symptoms are treated by the available military medical care for short-term periods. For example, a level-three clinic is typically found at larger military bases and on the frontlines of combat. This type of unit is equipped to treat acute cases of PTSD and minor injuries. For any wound or illness that requires intense or extended medical therapies, the injured soldier must travel to Germany or the U.S. and seek help from a level-four or level-five clinic. Those with injuries that require additional long-term care are often rehabilitated at a Veteran's Affairs facility, one that specializes in the issue he/she is having. The government has implemented many treatment programs in recent years to aid in rehabilitating issues of PTSD and Traumatic Brain Injury. Individualized therapy, group counseling, intense

inpatient rehabilitation and specialized programs for targeted issues like co-morbid PTSD and substance abuse are some services available to soldiers through the VA.

The United States government generally abides by the medical model, an approach to looking at disabilities and illness as a result to physical conditions. Naturally, the military follows the same protocol as the U.S. government, mainly treating physical symptoms and illness of the body. This is not to say that this institution does not address mental health issues, but they do promote traditional American medicine procedures as methods to cure symptoms. The U.S. military views injured soldiers through the lens of the medical model of disability, seeing these individuals who are lacking physical, sensory or mental functioning as having a problem or imperfection. From the military's point of view, they begin by recruiting whole individuals who are able to perform the demanding tasks that are required as an active service member. Each person is perceived as an investment that requires time and money to ensure appropriate care is being achieved to promote continued health and wellness.

If injury or illness occurs while in the military, particularly while deployed or on a site of conflict, they see it as their responsibility to restore a man or woman to the state they found them in originally, whole. Since this is how Traumatic Brain Injury or TBI and PTSD are viewed in the services, they follow a plan that is similar to fixing a broken arm. The outward symptoms are viewed as inward problems that can be treated with medication or remedial techniques like Cognitive Behavioral Therapy. These medicinal actions have their purpose, proving to be useful for millions of people over the years, but what if there was something more we could provide for our men and women in uniform? Alternative treatments, like music and dance therapy are traditionally not

utilized as a form of care for soldiers and veterans. Further examination is being done into the available research of veterans with brain injuries, to include PTSD, who have been treated with alternative therapies.

Significance of the Study

Although there are a few treatment methods being used to help Veterans cope with their symptoms, not all have been proven to be effective for every person. Much like the way people have optimal learning styles, some forms of counseling strategies can be more effective on certain personality types than others. Looking into alternative therapies such as music, that fire up other parts of the brain could be the missing piece of the puzzle for individuals not showing improvement with more traditional therapies.

Coming from a background of dance and theater, I have experienced first-hand the joy of participating in the arts and the emotional release it provides. Using the arts as therapy has increased in popularity in a number of medical and health fields in recent years. The application of these therapies range from working with children diagnosed with psychiatric disorders to adults suffering the effects of cancer treatment. Art therapy is used as an umbrella term for therapies such as music therapy, dance and movement therapy and visual art therapy. The focus of this research is to mainly look at the effects of music and dance, or movement, on veterans with TBI and/or PTSD.

According to a recent study, the use of artistic media as a means for therapy offers patients a way to communicate experiences, feelings, and needs, which are sometimes hard to express verbally. (Boehm, Cramer, Ostermann and Staroszynski, 2014) Not only can these types of therapy be used for emotional health, but it can also be beneficial in awakening parts of the body, to include the brain, that have been

suddenly injured. For example, take Gabrielle Giffords, the famous Congresswoman who was shot in the head in 2011. A vital role of her recovery came in the form of music. Initially, after her injury, she was literally unable to find the words to speak, yet, she was able to remember lyrics to songs and sing them.

Purpose and Objectives of Paper

Although considered unconventional, music therapy is beginning to surface at the forefront of remedial care. The American Music Therapy Association defines music therapy as the “clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program.” (AMTA, 2016) This type of treatment is powerful, physically noninvasive, and can mediate positive outcomes when interventions are directed to reduce pain, anxiety, stress, and depression. (Supnet et al, 2016) According to the American Music Therapy Association, music therapy can additionally provide avenues for communication that can be helpful to those who find it difficult to express themselves in words. (AMTA, 2016) Research in music therapy supports its effectiveness in many areas such as: overall physical rehabilitation and facilitating movement, increasing people's motivation to become engaged in their treatment, providing emotional support for clients and their families, and providing an outlet for expression of feelings.

Music is often casually employed as an ambient or adjunct tool for easing tension and improving mental clarity. However, no consensus has been reported regarding the effectiveness of music being used as a therapeutic tool in those who suffer from TBI and PTSD within the military population. As it stands, there is not a cure

for traumatic brain injuries or post-traumatic stress disorder. Fortunately, innovative interventions that approach these issues continue to develop into legitimate therapeutic treatments. Since there is not a designated cure, it is important to continue integrating new techniques and tools that may assist certain sectors of the population or may initiate once forgot portions of the brain. The objective of this research is to discover more information concerning the value of alternative therapies such as music therapy. Furthermore, this study is focusing on the benefits amongst soldiers, a population who is often treated with only conventional medicine. I believe if music therapy can be deemed useful to a population who is restricted from unconventional medicine by government mandates, it will be easier to justify its usefulness in other populations. With this large of a population of veterans being affected, it is time that we start looking at the forefront of emerging therapies. Therapies that highlight the artistic areas of the brain could be the tool that many need in order to cope with these diagnoses. To locate information on this topic, I used peer reviewed academic articles from PsychInfo, Academic Search Premiere and PubMed, along with the DSM-V and other credible Internet resources.

Limitations of Research

Limitations to this study include the lack of previous research on this specific targeted population and its interaction with musical therapies. Despite this fact, conclusions can be drawn from the overlapping of various studies. Still, they cannot be verified due to the lack of scientific testing. In addition, the value of this information is not highly sought after at this time. There are various reasons for this, but as alternatives to traditional medication become more credible, it is my hope this will

change. In my opinion, a great wealth of knowledge can be gathered from this research. There is much to discover for those with interest in widening their counseling skills and tools. However, music therapy is still not seen as an equivalent to other therapies.

CHAPTER 2

LITERATURE REVIEW

I have chosen to review several pieces of literature that will give a broad look at Post-Traumatic Stress Disorder and Traumatic Brain Injuries. I plan to point out the current interventions used by the military to treat wounded soldiers. In contrast, I will discuss what music therapy is, its importance and why it would be beneficial for soldiers with TBI or PTSD. Since this area has not been cultivated as much as other counseling techniques, I will include the positives associated with nonmilitary members when artistic interventions are included in their treatment.

Traumatic Brain Injuries

In order to understand the research, it is necessary to clearly define the population that is being examined. As stated by the Centers for Disease Control and Prevention (2015), "A TBI is caused by a bump, blow or jolt to the head or a penetrating head injury that disrupts the normal function of the brain." Using medical detail, Bryant describes these types of wounds with more depth:

Brain injuries can involve contusion, brain laceration, intracranial hematoma, contrecoup injury, shearing of nerve fibers, intracranial hypertension, hypoxia, metabolic anomalies, hydrocephalus, and subarachnoid hemorrhage. (p. 251)

An important concept to understand is that not all injuries to the head result in a TBI. However, when they do, a TBI can have a level of severity that may range from mild to severe. A mild traumatic brain injury, also known as MTBI, may result in a brief

change in mental status or consciousness, while a severe diagnosis can cause an extended period of unconsciousness or¹ amnesia after the injury. On average, 1.5 million people suffer from a TBI and of that number, it is estimated that approximately 80% are of mild severity and the remaining 20% are split fairly even between moderate and severe. (Ruff RM, Iverson GL, Barth JT, Bush SS, Broshek DK, 2009, p. 3)

Post-Traumatic Stress Disorder

Post-Traumatic Stress Disorder, or PTSD is a common diagnosis for those who serve in the military and are involved in distressing episodes or conflicts. As the name suggests, PTSD is a mental health condition that is initiated by experiencing something terribly frightening. It is important to note that two distinguishing types of trauma responses are common. The first, Acute Stress Disorder, occurs as an initial reaction that is frequent, but often transient, lasting less than a month. (Bryant, 2011, p. 252) The second, PTSD, is a less common, yet persistent response to trauma that is diagnosed at least one month after the trauma-inducing event. (Bryant, 2011, p. 252)

The American Psychiatric Association's DSM-V (DSM V, 2014) describes PTSD as an anxiety disorder that comprises five major criteria. (p. 459) First, witnessing an event that is threatening to safety, which causes a fearful and vulnerable response is key. Second, after initial episode, one must report a reoccurring experience that Bryant (2011) describes as "intrusive memories, nightmares, a sense of reliving the trauma, or psychological or physiological distress when reminded of the event." Symptoms of avoidance like active avoidance of reminders of traumatic event, inability to recall

specifics of event, emotional numbing and withdrawal from others make up the third major area of criteria. Fourth, Bryant (2011) states, “one must suffer from marked arousal, which can include insomnia, irritability, difficulty concentrating, hypervigilance, or heightened startle response.” The victim may end up losing interest in the other people, or even detaching himself or herself from the immediate society, who know what happened during the event. (Ozer *et al*, 2008) Finally, these symptoms must cause noticeable impairment to one’s functioning, and can only be diagnosed when they are present at least 1 month after the trauma. (DSM, 2014, p. 460)

PTSD is commonly referred to as “battle fatigue syndrome” or “shell-shock syndrome” amongst service members. A majority of people that experience traumatic events manifest with reactions like anger, fear, shock, nervousness and even feelings of guilt. (Javidi & Yadollahie, 2011) In 2014, American combat veterans took part in a survey done by the RAND Corporation to capture valuable data on PTSD. In accordance to the RAND results, approximately 20% of living veterans are currently dealing with PTSD. A very comprehensive analysis, also published in 2014, discovered that for PTSD, the rates range from 9% diagnosis within a year after coming back from deployment to a percentage of 31% a year since back from deployment. (Javidi & Yadollahie, 2011)

TBI and PTSD Overlap in Symptoms

It is important to notice that many of the symptoms that follow a TBI overlap with the symptoms following a traumatic episode. Because Traumatic Brain Injuries are caused by a disturbing event, symptoms tend to overlap. This makes it difficult to tell what symptoms the person is experiencing and correlate them to the correct diagnosis.

In the medical world, it has come to be accepted that many people who suffer from a TBI also develop PTSD. As Bryant's (2001) article points out, early commentators concluded that PTSD could not develop following TBI because at the time of trauma, the level of impaired consciousness was too great for the brain to code the traumatic experience, preventing traumatic memories from occurring. Later cases suggest individuals with TBI suffer very significant periods of retrograde and anterograde amnesia, such that they do not recall any episodes of the traumatic experience, but they can still develop symptoms of PTSD. (Bryant, 2011, p. 254)

Treatment of TBI and PTSD for Veterans

The 21st century wars in Iraq and Afghanistan have resulted in increased numbers of Veterans who experienced TBI due to the large number of explosives used in combat. According to Summerall (2015):

The Department of Defense and the Defense and Veteran's Brain Injury Center estimate that 22% of all combat casualties from these conflicts are brain injuries, compared to 12% of Vietnam related combat casualties. 60% to 80% of soldiers who have other blast injuries may also have traumatic brain injuries. (p. 1)

When interviewing Tyson Mele, a veteran of the Iraq War, he stated, "very few combat veterans that struggle with their experience will seek help and they don't want to feel different or unable to continue their service". PTSD and TBI will affect each individual differently. Due to this fact, a treatment that works for one individual may not effectively work for another person (Brunet *et al*, 2008). Other ongoing challenges that are commonly linked to these two diagnoses can include some panic disorders, depressions, deep substance abuse, or even feeling suicidal (Brunet *et al*, 2008). For

the people who have had these symptoms of PTSD in the society that we live, we should try to accommodate them and to make them feel appreciated and loved (Bisson, 2007). Likewise, veteran soldiers who are suffering the same ordeal need to be in an environment free of war, chaos or even conflicts (Bisson & Andrew, 2007).

Cognitive behavioral therapy (CBT) is one type of counseling that is predominately used in the treatment provided for military men and women. According to the V.A., research shows it is the most effective type of counseling for PTSD. (Veteran's Affairs, 2015) The VA is providing two forms of cognitive behavioral therapy to Veterans with PTSD: Cognitive Processing Therapy (CPT) and Prolonged Exposure (PE) therapy. The military generally prescribes talk therapy treatment for PTSD lasting about 6 to 12 weeks, although it can even last for longer duration. Several types of the psychotherapy can assist people with PTSD and even provide ways of coping with a TBI. Some types target the symptoms directly. Other therapies actually focus on the social, family, or vocational issues. The therapist or the doctor may combine various therapies depending on the person's needs (Brunet *et al*, 2008). More effective treatment usually tends to put emphasis on a few important components: education concerning symptom recognition, identification of personal triggers and learning appropriate skills to manage the identified symptoms. A popular type of therapy, particularly with service members is referred to as Cognitive Behavioral Therapy or CBT. This type of therapy may include:

- **Exposure Therapy-** assists people to face their fears and teaches them ways to cope in a positive manner. In general, exposure therapy slowly and safely introduces the person to the trauma that they experienced. This method uses writing, imagining, or visiting those places where traumatic events happened in

order to spark the feelings or emotions associated with the fear-inducing trauma. Once the raw emotions are exposed, the counselor can begin to help the client deal with the feelings in an appropriate method.

- **Cognitive Restructuring-** assists the victims to make sense of their unpleasant or faulty memories. A person who has been through a traumatic event may not remember the events in their entirety or may recall them differently from how they actually occurred. The individual may feel guilt or even shame for an event that is not his or her fault (Brunet *et al*, 2008). The counselor may be able to help the client begin to look at the event in a realistic way, alleviating unnecessary negative emotions and restoring peace to the situation.

A Brief History of Clinical Music Therapy

Clinical music therapy is the only professional, research-based discipline that actively applies supportive science to the creative and emotional experiences of music for health treatment and educational goals. (AMTA, 2016) Music therapy is actually rooted in service to American men and women serving in the military. According to the AMTA (2014), in 1945, the U.S. War Department issued *Technical Bulletin 187* detailing a program on the use of music for reconditioning among service members who were recovering in Army hospitals. (p. 4) This program demonstrated how music could be incorporated in multiple therapeutic services including recreation, education, occupational therapy, and physical reconditioning (Rorke, 1996; U.S. War Department, 1945). *Technical Bulletin 187* indicated that among 122 VA hospitals where these services were provided, 80,000 service members engaged in one or more music programs. (AMTA, 2014, p. 7) In the mid-nineties, the number of service members

engaging in recreational and music appreciation programs numbered in excess of 276,000 (Rorke, 1996).

According to Rorke, not long after the publication of the bulletin, the military participated in one of the earliest and longest cohort studies conducted in cooperation with the Office of the Surgeon General and Walter Reed General Hospital. (p. 201) The focus of the study was to understand whether “music presented according to a specific plan” aided in recovery among service members with mental and emotional disorders (Rorke, 1996, p. 202). The study incorporated four areas of treatment based on the assessment of clinical presentation, music preferences, and music experiences. The AMTA (2014) noted that numerous case reports and published articles resulted from this study. (p. 6). This was the first time in modern scientific research that the importance and impact of music interventions among U.S. service members was noted in rehabilitation history.

Music held an important place as a therapeutic intervention and was deemed beneficial during and for a brief time after World War II. (AMTA, 2014) Unfortunately, the history between clinical music therapy and the military seemed to collapse beyond that. Music use in clinical therapy would go on to form its own identity outside of the walls of the armed forces. Music therapy evolved to produce its own standards, principles and code of ethics. AMTA (2016) states “the seeds planted early on in the military have not mirrored the rate of growth and development of the profession as a whole.” The exact reasoning for the cut ties of these two entities so early on is unknown. It has not been until recent that the reintroduction of music therapy in treatment of U.S. military veterans occurred.

What Is Music Therapy?

Music therapy is the scientific use of music interventions to accomplish individualized goals for people of all ages and ability levels within a therapeutic relationship by a professional credentialed by an approved music therapy program. (Robb, 2014, p. 1) The term music therapy refers to a profession, similar to nursing, occupational therapy, physical therapy, or speech therapy, that requires specific education, training, and certification requirements in order to practice. (AMTA, 2015) Therapeutic interventions can be provided in a private or group setting. Specific treatment plans developed by certified music therapists highlight the strengths and deficits of the client. These unique music therapy treatment plans are individualized for each client. The goals, objectives, and potential strategies of the music therapy services are appropriate for the client and setting.

The World Federation of Music Therapy provides a definition of music therapy implying it is an intervention where music itself serves as the therapeutic tool or ingredient in the process. (Haase, 2012, p.1) What Haase is saying is that the key to actual therapeutic action in music therapy is the relationship processes that form, not necessarily the music itself. The core focus of all therapies is communication, however, in this instance, the help of music as well as other media including language can break through boundaries imposed by the individual being treated. (Haase, 2012, p. 2) Music and other alternative therapies can provide a link to familiar ground with the therapist, trigger memories or emotions within the individual and broaden the mindset of an individual to the idea of expressing inner thoughts and feelings. Haase found it important to point out that in his opinion, music in and of itself does not have a

therapeutic effect; it only gains this effect through therapeutic intervention.

According to the American Music Therapy Association (2015), music therapy interventions may include music improvisation, receptive music listening, song writing, lyric discussion, music and imagery, singing, music performance, learning through music, music combined with other arts, music-assisted relaxation, music-based patient education, electronic music technology, adapted music intervention, and movement to music. Each of these entities can manifest in a multitude of approaches during a therapeutic session. The treatment is uniquely molded to benefit the client while adhering to the standards of the music therapist profession. (Robb, 2014, p. 3)

A music therapist is an individual who has completed the education and clinical training requirements established by the American Music Therapy Association and who holds current board certification from The Certification Board for Music Therapists.

(AMTA, 2015) The standards of practice in music therapy include:

- Accepting and processing referrals for music therapy services from medical, developmental, mental health, and education professionals; in addition, others involved and authorized with provision of client services.
- Conducting a music therapy assessment of a client to determine if treatment is desirable. If so, the music therapist collects methodical, all-inclusive information to assist in the determination of appropriate types of music therapy services.
- Developing an individualized music therapy treatment plan for the client that is based upon the results of his or her assessment.
- Implementing an individualized music therapy treatment plan that is consistent with any other services being provided to the client.

- Collaborating with the client and the family or any other appropriate person regarding the needs of the client so that personal necessities are being addressed in music therapy.
- Utilizing counseling skills to inform counseling practice including use of research, reasoning, and problem solving skills to determine appropriate actions in the context of each specific clinical setting.

Music Therapy Credentials and Credibility

Clinical music therapy is the only professional, research-based discipline that actively applies supportive science to the creative, emotional, and energizing experiences of music for health treatment and educational goals. (AMTA, 2014) Music therapists must have a bachelor's degree or higher in music therapy from one of AMTA's approved colleges and universities, incorporating 1200 hours of clinical training and field experience. Music therapists are required to hold the MT-BC credential, issued through the Certification Board for Music Therapists. (AMTA, 2014) This affiliation protects the public by ensuring proficient therapeutic practice. In addition, select states require specialize licensure for music therapists in order to provide counseling within their borders.

AMTA states that music therapy is considered an evidence-based health profession with a strong research foundation. (2015) This type of degrees requires knowledge in psychology, medicine, and music. Counselors that provide music therapy must be proficient in communication and be able to use talk therapy as a base for all practice. As stated before, music therapy is a tool that is used by the counselor, it is not an entirely different form of rehabilitation.

Benefits of Music Therapy

The benefits of music therapy can be divided into two categories: those that are important, but not considered clinical interventions and those techniques that are administered by credible music therapists. (Supnet, 2016, p. 5) Listening to enjoyable songs, benefitting from bedside musicians and hearing inspirational music playing in the background of medical facilities are examples of recreational music therapies. (AMTA, 2014) These are the type of therapies that anyone, to include the client, can provide when needed. However, the expertise and professional training of a music therapist is needed to provide clients with clinical interventions.

According to AMTA, some of the techniques provided by music therapists have included working with hospitalized patients to decrease pain, working with older adults to help lessen the effects of dementia and working with those who have Parkinson's disease to improve motor function. (AMTA, 2014) Significant findings on the benefits of clinical music therapy were present in six research articles examined. After further reviewing these articles, I chose the most substantial music therapy benefits that were linked to areas closely related to TBI and PTSD. Advantages of music therapy were reported for: pain and anxiety in cardiac surgery patients (Sendelbach et al., 2006); persons with dementia (Raglio et al., 2008); and gait redevelopment in early post stroke patients (Thaut et al., 2007). Music therapists have the ability to hone in on these deficits and use music as a device that creates change.

Music Therapy and Persons with TBI and PTSD

A very few number of quality peer-reviewed articles are available for review that primarily focus on PTSD or TBI patients and music therapy. One study did focus on

participants with post-traumatic stress disorder (PTSD), finding a greater reduction in symptoms with music therapy than with cognitive behavioral therapy techniques. (Carr et al., 2012) Music therapy was also found as a key intervention that improves consciousness in the acute management of acquired brain injury. (Meyer et al., 2010) According to a study by Thaut et al., treatment participants with brain injury demonstrated improvements in executive functioning when using therapeutic music techniques. (Thaut et al., 2009).

One of the more popular instances of music therapy in recent years was the work done with Congresswoman Gabrielle Giffords to regain speech after surviving a bullet wound to her brain. A team of music therapists used various music techniques to help Mrs. Giffords' brain rehabilitate after parts of it were shut down from TBI. Following the remarkable recovery, Dr. Oliver Sacks, one of the medical specialists working on this case, spoke about the power of music therapy in an interview with NPR. Dr. Sacks (2011) stated:

People who have lost expressive language, who have become aphasic, may still be able to sing and even to retain some of the words of a song. These songs can be a bridge from music to the restoration of language, and when language is restored, it may be on the other side of the brain, which is very remarkable.

CHAPTER 3

DISCUSSION

The effects and implications of PTSD and TBI are clearly embodied in the literature along with conventional methods of therapy. These are terms that one may be more familiarized through common knowledge or other resources. An overview of music therapy has now been presented in this paper along with the benefits of its use as a therapeutic technique. The advantage music therapy can provide for those suffering from TBI or PTSD has been defined in a few quality studies, but not many. However, research including brain and spinal chord functioning has been clearly addressed. There is a narrow place where the three major subjects of this literature intersect; music therapy, injured military personnel and those recovering from PTSD or TBI. That place is the focus of my discussion.

Alternative Therapies with Vets

This possibility for an alternative way of communication and expression could be important, in particular, for veterans who have suffered TBI and PTSD. I believe that the men and women serving or who have served deserve the best quality care. Not all people respond to each type of therapy. This is why it is important to adventure beyond the common medicinal protocol to find alternatives for those who may not respond in a conventional manner. Music therapy is one of those affordable and accredited options that the government could utilize at a higher rate with our troops. It is imperative that counselors and other medical professionals in the rehabilitation field use safe and effective therapies that provide the greatest outcome. This is why I recommend music therapy to military men and women who are working to rehabilitate from PTSD and TBI.

There are several examples of music therapy programs in the military across the country. They range from programs for active duty airmen to assist in coping and stress management during deployment to programs that address symptoms of PTSD by using songwriting as a tool during therapy. In addition, music therapists are actively involved in contributing to a strong base of evidence in support of various music therapy interventions, drawing from high quality research. For over 70 years, in at least some loose fashion, the military and clinical music therapy have had some form of relationship. Though the music therapy literature has numerous studies that investigate topics relevant to the military, there is a need for more clinical studies to support evolving music therapy practices necessary to improve life functions in service members across the country.

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Artistic Transformation: The Benefits of Music Therapy in U.S. Veterans

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