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Treating Trauma: The Occupational Therapy Perspective

Matthew Althaver

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Extended Literature Review

Trauma results from the first-hand reactions of heinous acts in a battlefield of pain and suffering. Yes, trauma is common among soldiers in literal war zones but life itself is often a battlefield in which fights are won and lost. Trauma is one such fight. It surrounds Americans in observation and experience. One in five Americans were sexually assaulted as a child; one in four were beaten by a parent; one out of eight witnessed their mother being beaten or hit; and one in three couples are physically violent towards each other (Kolk, 2015, p. 4). The National Comorbidity Study found that 60.7% of men and 51.2% of women interviewed reported having experienced at least one major traumatic event in their lifetime (Wheeler, 2007). Resilience is the wall that protects us from innumerable negative stressors, but traumatic events chip away at the fortress human minds and bodies command. As trauma invades, coping mechanisms begin to fail. Individuals' bodies and minds are profoundly affected by the intolerable grief and confusion that trauma inflicts on a human being. Initially manifesting themselves as a fight or flight response, reactions to the battles that are won and lost become important. Adverse reactions lead to harmful effects on the mind which causes negative effects on the body (Kolk, 2015). Therefore, trauma is both a physical and psychological war with the reactions that life events necessitate.

As reactions create adverse effects, holistic treatments need to be utilized to rebuild the walls of the fortress assaulted by trauma. The essence of trauma can require a complex treatment plan in order to heal the whole person and fill the voids that each individual feel in their life. Prescription drugs, Transcranial Magnetic Stimulation, and alternative therapies are among the various treatments for emotional trauma. Occupational Therapists can help institute trauma informed care and help educate clients on the profound effects trauma has on a human being. Therefore, this study will discuss trauma, highlight treatment strategies, and present a study on the views of Occupational Therapists on the topics of emotional trauma and holistic health in Virginia.

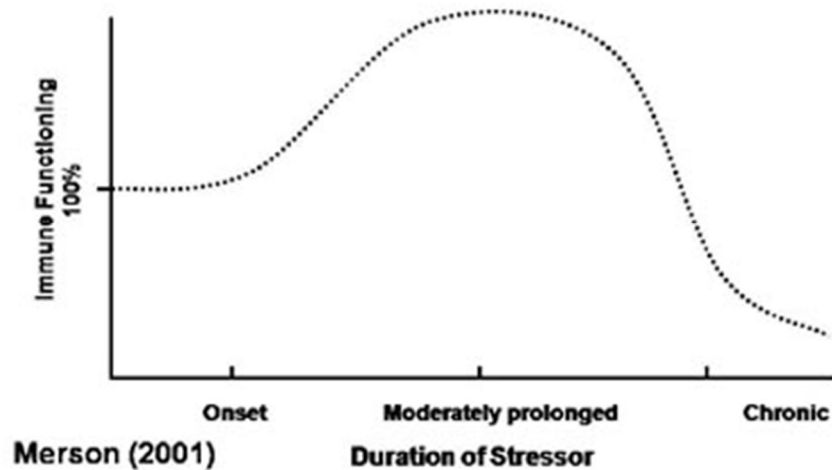
Explanation of Trauma

According to the American Psychological Association, trauma is an encompassing term that refers to “[a]n emotional response to a terrible event like an accident, rape or natural disaster. Immediately after the event, shock and denial are typical. Longer-term reactions include unpredictable emotions, flashbacks, strained relationships and even physical symptoms like headaches or nausea” (“American Psychological Association”). Conversely, at its most basic level, stress is, “The nonspecific response of the body to any demand.” (Fink, 2010). Stress can be positive or negative for the body and occurs due to a lack of homeostasis in body systems (Fink, 2010). In other words, stress is a relatively normal part of living life. Therefore, traumatic events are always stressful, but stressful events are not always traumatic. In relation to the war analogy, stress is an individual bullet hitting the wall of the fortress and trauma is the dynamite that necessitates a response. The top five stressors in the United States in 2008 were money, the economy, work, family health problems, and family responsibilities (Taylor, 2018). Stress is highly subjective between individuals because life stressors can have completely different effects. Everyone’s fortress is built to withstand certain stressors better than others.

“When an organism perceives a threat, the body is rapidly aroused and motivated via the sympathetic nervous system and the endocrine system. This concerted physiological response mobilizes the organism to attack the threat or to flee; hence, it is called the fight or flight response.” (Taylor, 2018, p. 115). In essence, one way the body physiologically responds to trauma is by utilizing the sympathetic nervous system to elicit a “fight or flight response”. The fight aspect reveals itself when responses are aggressive and lead to the individual taking action. The flight aspect reveals itself when an individual withdraws socially, mentally, or through the use of coping mechanisms such as substance use or distracting behaviors (Taylor, 2018). The trauma pathway is determined by the body’s interpretation of the stimuli. Research by Stephen Porges surrounding his Polyvagal theory on trauma explains that the alarm system, termed the amygdala, in the brain is damaged by trauma and becomes hyperactive in maladaptive situations (Porges, 2017). The parasympathetic shutdown is another response to a traumatic event. Among trauma patients, the parasympathetic system tends to be maladaptive in that it causes them to shut down their social, emotional, and physical functioning in order to protect themselves (Kolk, 2015). Unfortunately, traumatic triggers, or stimuli that set a person off emotionally with memories of the trauma, trick the body into shutting down certain aspects without a real threat

present. Over time this can lead to chronic stress. Stress can have different effects on the immune system. The most accepted theory among immunologists is that acute stress actually improves immune function while chronic stress weakens immune function (Sapolsky, 2004). In Sapolsky's words, "Stress turns out to transiently stimulate the immune system" (Sapolsky, 2004, p. 155).

Below is a diagram from Sapolsky's book visually presenting the immune response to stress (Sapolsky, 2004, p. 155). Trauma, through initiating chronic stress, indirectly causes immunodeficiency.



The culmination of the body's reaction to stress produces an emotional response. Emotion is one of the most common ways in which trauma manifests. Some common emotional symptoms of trauma include denial, anger, sadness and emotional outbursts (Kolk, 2015). Victims of trauma may redirect the overwhelming emotions they experience toward other sources, such as friends or family members. This is one of the reasons why trauma is so difficult for loved ones. It may be difficult to help someone who pushes you away but understanding the emotional symptoms that come after a traumatic event can help ease the process.

Trauma often manifests physically as well as emotionally. Some common physical signs of trauma include paleness, lethargy, fatigue, poor concentration and a racing heartbeat. The victim may have anxiety or panic attacks and be unable to cope with stress in certain circumstances (Kolk, 2015). The physical symptoms of trauma can be as real and alarming as those of physical injury or illness, so treatment must be cognizant of the physical symptoms of trauma. As Post Traumatic Stress Disorder (PTSD) has become more publicized in popular media, the common misconception has been that it is the main effect that trauma has on its

victims. One study found that two out of three children who were abused do not suffer from PTSD but rather from other disorders such as dissociative disorders, borderline personality, bipolar and unipolar depression, substance abuse, eating disorders, oppositional defiant disorder, and attention deficit disorder (Wheeler, 2007). As the understanding of trauma improves, the Polyvagal Theory extends the common view of trauma to more holistic concepts.

Polyvagal Theory

The nervous system in the human body is more complex than the automatic responses to stimuli. Concepts like safety, social relationships, and stress have been shown to be equally important in relation to the body's response to trauma. Stephen Porges introduced his theory about trauma called the Polyvagal theory in 1991 and has since built on his theory (Porges, 2017). It allowed us to look beyond fight or flight and put social relationships front and center in our understanding of trauma. It also suggested new approaches to healing that focus on strengthening the body's system for regulating arousal. Until the Polyvagal theory, the common idea surrounding the nervous system was that it consisted of two antagonistic parts (Porges, 2017, p. 37). The sympathetic nervous system response causes more activation leading to less calming and the parasympathetic nervous system response causes more calming leading to less activation.

With the introduction of the Polyvagal Theory, Porges uses his extensive research about the ventral vagus nerve to explain a third part of the nervous system; the social engagement system. Social engagement is defined as: "The process we use vocalization, we use listening to intonation in the voice, we use facial expressions, and we use gestures." (Porges, 2017, p. 73). The vagus is a cranial nerve that travels to organs throughout the body to provide bidirectional communication between the brain and visceral organs (Porges, 2017). Approximately 80% of its fibers send information to the brain while 20% form motor pathways which enable brain circuits to directly change aspects of our physiology (Porges, 2017). Those neural pathways cause a unique mix of activation and calming that help us navigate social relationships (Porges, 2017). Heart rate and stimulation of our digestive system are examples of impacted variables. The Polyvagal Theory makes sense of many of the above treatment options by putting more emphasis on the social aspect of trauma. Treatments should first focus on creating a safe atmosphere so that therapists can effectively communicate with patients. As safety and trust is created between patient and therapist, treatments can become more effective and clearer to the patients.

Treatment Strategies

Prescription Drug Treatments

Prescription drugs are the most common and simple to prescribe treatment for trauma. Pharmacology has increased the human life span and provided cures to numerous ailments that were formerly untreatable. Pharmacological breakthroughs have also occurred for treating trauma through various avenues. People with psychological disorders have experienced massive improvements in functioning because of drugs focused on treating ADHD, depression, mood disorders, and an assortment of other disorders. However, the positives of prescription drug treatments do not tell the whole story.

The rise of pharmacology has hailed pharmaceuticals as quick, easy, and effective treatments for nearly every condition; mental or physical. Many medical professionals have failed to educate the public about the pitfalls of pharmaceuticals. In 2013, Johnson and Johnson agreed to a 2.2-billion-dollar settlement in an investigation about improperly promoting the antipsychotic drug Risperdal (Kolk, 2015). Though the company was held responsible, doctors who over prescribed were not punished. As a result of doctors overprescribing, surprising data is surfacing. In 2012, \$1,526,228,000 was spent on Abilify which is more than any other medication and 500,000 children take antipsychotic drugs (Kolk, 2015). Instead of treating conditions, most drugs involved with psychological disorders only mask conditions. Once a patient stops taking drugs, their symptoms and disorder typically revert back to pretreatment levels. Drug treatments trap patients in a pattern of paying for drugs over a lifetime. Side effects are diverse and widespread, including an increased risk of morbid obesity while interfering with motivation and curiosity which are essential life skills (Kolk, 2015). “The standard medical focus on trying to discover the right drug to treat a particular disorder tends to distract us from grappling with how our problems interfere with our function as members of our tribe.” (Kolk, 2015, p. 81). It is time for medical professionals to learn about the drugs they prescribe and educate their patients about the benefits and side effects. Though prescription drugs are often effective, alternative evidence-based treatments are not adequately considered.

Psychotherapeutic treatment

Psychotherapeutic treatment attempts to treat the complexity of trauma symptoms by using a phase-oriented plan. Phase one, or the safety and stabilization phase, includes increasing external and internal resources for the patient to use (Wheeler, 2007). External resources aim to

help the patient by providing stability to their mind and surrounding life. Experts on the specific symptoms of trauma should be utilized to provide the best care possible and self-harming actions should be addressed before the next phase begins (Wheeler, 2007). Phase one should help the patient feel safe and secure, so that further treatments can be more effective. Similar to the Polyvagal Theory, creating a secure and safe environment is a crucial first step in numerous trauma treatments. Internal resources are taught to the patient through a variety of tools so that patients can cope better with the trauma-reliving situations they may find themselves in. Cognitive-behavioral treatment (CBT) is one such tool that is “based on the premise that the individual’s view of self and the world are central to the determination of emotions and behaviors, and thus by changing one’s thoughts, emotions and behaviors can be changed” (Wheeler, 2007, p. 137). CBT utilizes role-playing, thought stopping, covert rehearsals, and guided self-dialogue to improve coping strategies. Eye Movement Desensitization and Reprocessing (EMDR) another tool and it is a behavioral process where the patient free associates in between sets of stimulation (Wheeler, 2007). Patients begin to process painful memories while integrating new information. It is believed to be effective at stabilizing the thought process by creating a connection between both hemispheres of the brain through the dual attention given to old and new memories (Wheeler, 2007). This connection seems to disrupt the traumatic memory network. Both CBT and EMDR are treatment methods that focus on enhancing internal resources for coping and persevering through trauma. Utilizing CBT and EMDR together leads to the highest rates of success among the treatment population (Wheeler, 2007). Once safety and stabilization are successful, phase two can begin.

Phase two, or the processing phase, accesses all aspects of memory including behaviors, affect, sensations, cognitions, and beliefs associated with the trauma (Wheeler, 2007). Processing involves assisting the patient in constructing a new narrative that fits their current situation rather than the traumatic event they experienced. Through this, new learning can occur as well as adaptive responses to triggers. As traumatic events are processed, patients have been shown to decrease their emotional arousal to the events (Wheeler, 2007). Ensuring continued safety and stabilization is important in this stage because of the potential for patients to experience their trauma all over again. The above methods of treatment have been shown to be statistically effective in treating trauma. In a NIMH study to compare the effects of EMDR therapy, drugs (Prozac), and a placebo (sugar pill) on PTSD, the results revealed that Prozac only had a small

advantage (42%) over the sugar pill (35%) in percent improvement of PTSD after eight weeks (Kolk, 2015). On the other hand, 49% of those who participated in EMDR improved after eight weeks and 60% reported being completely cured after eight months (Kolk, 2015). Drugs barely beat the placebo and require patients to continually buy and use them. If a patient stops using Prozac, their symptoms will typically revert to pretreatment levels (Kolk, 2015). Not only is EMDR more effective than drugs, but it has a lasting improvement on patient outcomes. Starting in 2014, EMDR became one of the treatments for PTSD approved and sanctioned by the Department of Veterans Affairs (Kolk, 2015).

Recent research has suggested the efficacy of Interpersonal Psychotherapy (IPT) for the treatment of PTSD (Bleiburg & Markowitz, 2019). Formerly used as a treatment for major depression, IPT is being evaluated as a potential option for patients suffering from PTSD. IPT is known as a life event-based treatment strategy aimed at improving interpersonal functioning (Bleiburg & Markowitz, 2019). PTSD is similarly a life event-based illness that affects interpersonal functioning (Bleiburg & Markowitz, 2019). Therefore, application to treating PTSD was hypothesized to be effective. Though more research is needed, preliminary studies suggest that IPT is a valid treatment strategy for trauma-induced disorders such as PTSD.

Virtual Reality

Virtual reality (VR) is a novel treatment in the world of trauma but has the potential to become more widespread when further research is conducted. Treatment through VR technology is often highly regarded among those who already use a substantial amount of other technology. Currently, VR is used mainly with the veteran population following deployment because of its versatility and ease to implementation. One study found that 18% of returning Iraqi war veterans exhibited symptoms of PTSD (Gerardi et. al, 2008). Those numbers make sense when examining the unprecedented number of traumatic events that happen on a battlefield. Research reveals, “Ninety-two percent of soldiers and Marines serving in Iraq reported being attacked or ambushed, 86% reported knowing someone who was seriously injured or killed, 70% reported seeing dead or seriously injured Americans, and 53% reported handling or uncovering human remains.” (Gerardi et. al, 2008, pg. 209). Research suggests that some type of exposure to the initial trauma should occur during treatment for it to be most effective (Gerardi et. al, 2008). Virtual reality exposure (VRE) therapy is a human-computer interaction used to simulate an environment eerily similar to the war zone (Gerardi et. al, 2008). Presence and perception feel

real to the patient which aids in creating a realistic environment for emotional processing of fear to occur. The delivery of the exposure is precise, easily manipulated, and controlled by the therapist. A case study on an Iraqi war veteran showed significant improvements in reexperiencing, avoidance, and hyperarousal levels post-treatment (Gerardi et. al, 2008). Overall, the summed average score attributed to each characteristic decreased by 56% (Gerardi et. al, 2008).

Results in a study completed in 2018 on virtual reality exposure as a treatment for PTSD revealed that VRE was effective for treating certain populations of veterans (Norr, 2018). Younger veterans, veterans not taking antidepressants, and veterans with greater than average PTSD arousal incidence respond well to VRE treatment (Norr, 2018). Specific treatments to focus on an individual's unique characteristics is a growing trend in the medical field. Adapting treatments to individuals allows for greater efficacy and better outcomes when compared to treating everyone, who are not characteristically similar, through the same avenues. In VRE, younger recipients are more receptive to treatment and comfortable with the technology used. Studies show that the receptivity that younger veterans show to the technology used in VRE reveals trends in patient outcomes (Miller et al., 2016). Furthermore, research has found that patients with greater arousal would respond better to the more immersive VRE than traditional treatments (Trachik et al., 2018). Results suggest that matching treatment with patient profiles could meaningfully improve treatment efficacy for combat-related PTSD (Norr, 2018). Further research on VR to treat trauma-induced conditions should be pursued. Through virtual reality, PTSD patients can significantly improve their symptoms through realistic experiences and controlled environments.

Yoga

Yoga is a relaxing activity that can help destress and heal the mind. Substantial research has shown its effectiveness in treating trauma. Yoga is defined as “A mind and body practice with origins in ancient Indian philosophy. The various styles of yoga typically combine physical postures, breathing techniques, and meditation or relaxation.” (Macy et. al, 2015). Guided imagery is also incorporated to produce a state that can benefit trauma patients (Sarsak, 2019). Yoga invigorates the mind-body connections and is used in a broad range of professional settings including occupational therapy, physical therapy, and psychotherapy (Sarsak, 2019).

The experience of trauma creates a disconnect between the mind and the body that impacts essential, precise patterns. The practice of yoga can help assist the recovery by improving the occupational self-regulation that life necessitates. Stress can be debilitating for many but incorporating yoga into the Occupational Therapy process can produce an efficient avenue to self-regulate and improve the quality of the client's daily life. Combined yoga and OT interventions help manage the psychological and neuro-physical symptoms of numerous conditions such as stroke, excess stress, and schizophrenia (Sarsak, 2019).

As a treatment, yoga is shown to have multiple specific effects on trauma-related symptoms. Regulated breathing calms the parasympathetic nervous system and practicing "staying in the moment" helps counter dissociation (Kamenetz, 2017). By providing beneficial physiological impacts on the body, yoga has been shown to positively affect trauma symptoms (Macy et. al, 2015). Yoga is a great example of mind and body being connected in ways that are challenging to understand but easy to feel. A meta-analysis on yoga's effectiveness in treating trauma showed that it does have significant effects on symptoms of trauma, but it should be used as a secondary treatment instead of a primary one (Macy et. al, 2015).

Though yoga could help relieve some trauma symptoms and heal psychologically, problems exist with using yoga as a treatment. Yoga requires a quiet place to focus and calm the mind and body. Not everyone has the setting to practice yoga consistently. Encouraging a person to actively pursue quiet times to practice yoga would be an opportunity to elicit change. Time commitment, which is often a perceived barrier, is also an issue for many considering partaking in yoga. Perceived barriers can often be more influential than actual barriers. Social stigmas against yoga and the actual or the perception of a lack of time can plague adherence to yoga and decrease the chances to commence the activity (Macy et. al, 2015).

What Can Occupational Therapists Do About Trauma?

Founded in 1917, occupational therapy can be part of the solution to a world plagued with trauma. According to the AOTA, "Occupational therapy is the only profession that helps people across the lifespan to do the things they want and need to do through the therapeutic use of daily activities (occupations)." (American Occupational Therapy Association). Occupational therapists promote activities of daily living (ADLs) that enable people of all ages to live life to its fullest potential while encouraging a healthy lifestyle and coping with disability or injury. Furthermore, occupational therapists focus on the person as an integral part of the therapy team.

The focus encourages occupational therapists to adapt aspects of therapy to best serve the individual. Oftentimes, occupational therapists are trusted, confidential avenues for expressing pain, trauma, or problems not limited to physical ailments. Trauma does not end when the individual enters an occupational therapy setting. For holistic therapy to truly occur, it is beneficial for trauma treatment to be included as part of the solution.

Treatments that occupational therapists use are somewhat limited by the scope of their practice. For example, prescription drug treatments and some psychotherapeutic treatments are not within the professional confines of an occupational therapy's practice. Occupational therapists enlist evidence-based but nonpharmacological therapies to elicit positive change in their treatment population. Comprehensive health evaluations and psychological treatments are becoming more common in occupational therapy with the fieldwide shift towards holistic health. Interdisciplinary treatments with other health professionals have been emphasized to improve patient outcomes and provide a more comprehensive, efficient process (American Psychological Association).

Though science is constantly changing, the trend that has continually become more conclusive are the connections between the mind and the body. With the trends in health becoming more holistic, occupational therapists have a responsibility to treat the mental health of patients as well as their physical functioning. Occupational therapy has been used as a valuable resource for treating patients with psychiatric and cognitive disorders. Specifically, occupational therapy has been proven to be effective at symptom management and enhancing functional performance for people with mental health problems (Sarsak, 2018). Studies show that combination treatments utilizing therapeutic approaches, such as cognitive behavioral therapy (CBT) and interpersonal therapy (IPT), in addition to medication or other psychotherapeutic interventions improve client outcomes more than any single form of treatment alone (Sarsak, 2018).

Occupational therapists are able to assess their clients during their first session. After a thorough evidence-based assessment has been conducted, the therapist creates a personalized occupational profile for the client. The profile is essential for goal setting, treatment planning, and implementing treatment. Research shows that occupational therapy interventions yield significant improvements in relationships, performance, competence, and recreation for their clients (Sarsak, 2018). Occupational therapists have a variety of evidence-based interventions

when working with clients with mental health issues. They are able to work with clients in a variety of settings to assist people living with an assortment of disorders to manage their conditions so they can live independent and full lives at home in their community.

While some research has shown the effectiveness of occupational therapy for improving symptom management and enhancing functional performance in those with mental health concerns, specific structures for providing that treatment need to be further advocated for within the profession. Trauma Informed Care (TIC) is a type of structured treatment useful for clients suffering from emotional trauma. TIC acknowledges that traumatic experiences overwhelm, terrify, and violate the individual and it aims to create 1) safe context, 2) restore power, and 3) build self-worth (Van Der Kolk, 2003). Creating a safe context includes physical safety, trustworthiness, transparency, predictability, and consistent boundaries. Restoring power involves encouraging choice, empowerment, and a strengths perspective. Lastly, building self-worth happens through relationships, respect, compassion, collaboration, and acceptance (Van Der Kolk, 2003).

Another type of structured treatment that occupational therapists can use is proactive coping which focuses on uncovering ineffective thinking and maladaptive behaviors and practicing alternative more positive cognitive and behavioral patterns. Proactive coping is a method that OTs often implement in pediatric settings. Three coping strategies have been predominantly discussed in scientific literature: Problem-focused, emotion-focused, and avoidant coping. Problem-focused coping refers to strategies that intend to actively address environmental stressors (Britt, 2017). A plan of action for managing a problem would be an example of problem-focused coping. Emotion-focused coping refers to managing emotions associated with the stressor and potentially reappraising the stressor (Britt, 2017). Avoidance coping refers to avoiding the situations that aggravate the stressor or the emotions that accompany it (Britt, 2017). Avoidance coping has been found to be detrimental to improving outcomes (Yagil et al. 2011). Though rarely studied, religious coping, which is religiously framed cognitive, emotional, or behavioral responses to stress, has had mixed results with positive and negative outcomes attributed to the process (Yagil et al. 2011). Proactive coping typically institutes a combination of problem-focused and emotion-focused coping strategies to form a strategy for addressing trauma. In Britt's research, emotion- and problem- focused coping strategies were most effective in treating military PTSD patients (Britt, 2017). Avoidance coping is not productive in

combating PTSD symptoms (Britt, 2017). Occupational therapists could benefit from using proactive coping to treat clients suffering from emotional trauma.

Spirituality in Occupational Therapy

Spirituality has perpetually been a controversial topic. The general public typically have strong views about spirituality and occupational therapists must navigate their job description while serving their clients with the best care possible. Specific to occupational therapy, part of the controversy stems from uncertainty about how spirituality is taught in a therapist's education. Occupational therapists are being encouraged to consider a holistic, client-centered approach but practitioners are unsure and ill-prepared to talk about spirituality. For this paper's purpose, the adopted definition of spirituality is: "a dynamic and intrinsic aspect of humanity through which persons seek ultimate meaning, purpose, and transcendence, and experience relationships to self, family, others, community, society, nature, and the significant or sacred. Spirituality is expressed through beliefs, values, traditions, and practices" (Mthembu, 2015, p. 1530). Research has shown that spirituality has become a neglected topic in healthcare education (Morris et al. 2012). Studies suggest that medical schools should educate their students on societal trends in spirituality to provide a welcoming and compassionate environment for clients (Morris et al. 2012). Unfortunately, Morris et al.'s study argues that there is a gap between education, theory, and practice in occupational therapy (Morris et al. 2012).

Research in Canadian occupational therapy programs indicated that importance attached to spirituality in nine OT graduate schools was very low (Kirsh et al. 2001). Furthermore, the confidence of students in dealing with spirituality in their future careers was also very low (Kirsh et al. 2001). Due to the uncertainty associated with weaving spirituality into an OT's education, future OTs are suffering from low confidence and inept training in an important area of holistic health. In Mthembu's survey research, he found that the average student responded with a 2.98 on a scale of 1-5 (1=strongly agree 5=strongly disagree) regarding their thoughts about their preparedness to address spiritual matters in their careers (Mthembu, 2015). The vast majority of occupational therapy students highly agreed that human beings have an inner being, or mind, that assists to express emotional wellbeing and purpose about life (Mthembu, 2015). The survey also revealed that participants agreed that spiritual care is essential as it provides patient hope, meaning, and purpose (Mthembu, 2015). The majority of the participants felt that spiritual care

should be addressed and reinforced more in practice which could support the idea that students need role models to learn how to practice spiritual care (Mthembu, 2015).

If a person consists of body, mind, and spirit, then treating the person holistically would include their spiritual self. Regardless of personal beliefs in spirituality, faith and hope have been found to improve patient outcomes in numerous healthcare settings (Hemphill, 2015). In the specific context of occupational therapy, spirituality is viewed as part of the concept of holism and needs to be assessed (American Occupational Therapy Association, 2014). Hope, faith, meaning in life, and motivations are common topics related to a person's spirituality that can aid in treating the client (Hemphill, 2015). Knowledge about a person's spirituality helps occupational therapists develop a treatment plan unique to each individual. Awareness of spirituality among clients can foster respect for specific opinions and actions that the client has or does. Furthermore, spirituality tends to improve patient outcomes who are suffering from more intense emotional traumas (Hemphill, 2015). Occupational therapists should increase their knowledge and confidence through education for addressing spiritual topics in order to treat the holistic person more effectively.

Holistic Health in Occupational Therapy

Occupational Therapists have a wide range of responsibilities that overlap with mental health. OTs help their clients understand the impact of mental health problems, initiate and track goals, perform psychological assessments, and teach proactive coping strategies. Education on the OT's role in treating mental health issues should be implemented in more educational studies.

As one trauma patient explained, "Some people's lives seem to flow in a narrative; mine had many stops and starts. That's what trauma does. It interrupts the plot... it just happens, and then life goes on. No one prepares you for it." (Kolk, 2015, p. 7). Trauma is nearly impossible to prepare for and challenging to treat. Treating each trauma patient holistically based on their unique identity is crucial in providing quality care to millions in America, however, many of the treatments discussed previously are often termed "alternative treatments" and hold negative connotations.

Occupational therapy emphasizing holistic health can help bridge the interdisciplinary gap between psychologists and occupational therapists. Drugs can be effective, but they are not miracles. They have numerous negative side effects and some only function to mask symptoms

of disorders. Further research should be conducted on alternative treatments of trauma so that drugs are not the best advertised solution. Utilizing virtual reality technology is particularly intriguing for the future of trauma treatments because of its potential reach and ease of use for the millennial generation. By Occupational Therapists using alternative treatments and the ideas behind the polyvagal theory, the fortress of a person's body, brain, and mind can be rebuilt and efficiently used in the battles of their lives. Occupational therapy has formed a complementary relationship with psychology and other medical treatments to provide an effective way to manage psychiatric disorders and enhance functional performance for persons with mental health concerns. The inclusion of occupational therapy practitioners as mental health service providers in the interdisciplinary healthcare team and the continued research to further investigate the positive impact that occupational therapists can have on psychiatric disorders is crucial.

Statement of purpose

The purpose of the current research examines the trends in opinions, among Occupational Therapists in Virginia, on holistic health and treatment of trauma.

Methods

Participants

Nineteen participants gave electronic informed consent to take part in the survey. Participants ranged from 8 months to 31 years ($M = 11.37$ years; $SD = 9.62$) of experience in the field of Occupational Therapy. Seven of the participants attended James Madison University for their OT degree, five attended Murphy Deming, one attended Shenandoah University, two attended Messiah College, two attended Virginia Commonwealth University, one attended Emory and Henry University, and one attended Boston University. Forty seven percent of the participants work in pediatrics, 37% work in geriatrics, 11% work with all ages, and 5% work with the age range of 18-60. Fifty eight percent of participants practice at an outpatient private clinic, 37% practice at a retirement community, and 5% practice at a school.

Procedure

Survey research was conducted to analyze the trends among the opinions of Occupational Therapists pertaining to treating emotional trauma and holistic health. The study was approved by the Bridgewater College Institutional Research Board. Participants were limited to licensed Occupational Therapists in Virginia and were recruited by direct emails with snowball sample instructions to OT clinics. The survey consisted of questions about treating emotional trauma,

views on holistic health, and numerous screening questions that provided avenues to group the participants (see Table 4 in the results section for the complete list of survey questions). Sogo survey was used to distribute the survey electronically. After data was collected for six weeks, statistical tests were completed to analyze the data. The basic descriptive statistics completed were the ranges (min and max scores), means and standard deviations for demographics and each question that had a scale. Furthermore, a Pearson's correlation of numerical variables was conducted to examine relationships between the variables of interest.

Results

Among the survey respondents, the length of time practicing OT and the importance of Trauma Informed Care (TIC) in OT were negatively correlated, $r(17) = -.55, p = .01$ (see Table 3). The negative correlation between time practicing OT and their opinions on the importance of trauma informed care was significant but moderate, $p < .05$. Among the survey respondents, the importance of holistic health and the importance of Trauma Informed Care (TIC) in OT were positively correlated, $r(17) = .67, p = .002$ (see Table 3). The positive correlation was significant and strong. The length of time practicing OT and the importance of holistic health in OT were negatively correlated, $r(17) = -.60, p = .01$ (see Table 3). The negative correlation between length of time practicing OT and their opinions on the importance of Trauma Informed Care was significant but moderate. The mean response for the importance of holistic health was relatively high ($M = 4.5, SD = .77$, see Table 2). Likewise, the mean response for the importance of TIC was relatively high ($M = 4.2, SD = .90$, see Table 2).

Holistic health has increasingly become a trend for the field of occupational therapy. Survey results support the trends and show that the majority of occupational therapists (84%) believe they practice holistic health. The remaining 16% report that they are not sure if they practice holistic health. The majority of participants indicated they practice trauma informed care (68%) and utilize psychology in their practice (95%) (see Table 4). Questions 9 and 16 had similar response rates with 47% of respondents answering yes regarding using spirituality in occupational therapy and 53% of respondents answering yes regarding using proactive coping in occupational therapy (see Table 4).

Table 1

Survey Questions

Question Number	Question
6	Do you practice holistic health in Occupational Therapy?
7	Do you practice trauma informed care/ treatment in Occupational Therapy?
8	Do you utilize psychology in Occupational Therapy?
9	Do you utilize spirituality in Occupational Therapy?
10	On a scale of 1-5, how important is holistic treatments in Occupational Therapy?
11	On a scale of 1-5, how important is Trauma Informed Care in Occupational Therapy?
12	Do you know what the Polyvagal Theory is?
13	What are effective trauma-informed care interventions within the scope of occupational therapy practice that improves patient outcomes for adults who have experienced emotional trauma?
14	What are effective trauma-informed care interventions within the scope of occupational therapy practice that improves patient outcomes for children who have experienced emotional trauma?
15	Do you feel limited in certain scenarios by the scope of occupational therapy in relation to treating emotional trauma?
16	Do you teach proactive coping strategies for patients suffering from emotional trauma?

Table 2

Descriptive Statistics

Question	N	Min	Max	M	SD
Length of Career	19	.66	31	11	9.6
Importance of Holistic Health	19	2	5	4.5	0.77
Importance of TIC	19	2	5	4.2	0.90

Note. The questions referenced are Q10 and Q11 in Table 1.

Table 3

Correlations Between Perceived Importance of Two Variables and Length of Career

Measure	Length of Career (p<.05)	Importance of Holistic Health (p<.05)	Importance of TIC
Length of Career (Years)	1		
Importance of Holistic Health	(r) -0.60 (p) .0067	1	
Importance of TIC	(r) -0.55 (p) .014	(r) 0.67 (p) .0015	1

Note. The importance of holistic health and the importance of TIC were rated on a 1-5 Likert scale. The length of career was answered in years.

Table 4

Quantitative Responses

Question #	Yes	No	I am not sure	
6	84	16	0	
7	68	5	26	
	Yes	No		
8	95	5		
9	47	53		
16	53	47		
	Yes, I am very familiar with it		Yes, but only surface level	No, not at all
12	11		26	63
	Yes, often		No, never	Sometimes
15	0		37	63

Note. All numbers were recorded as a percent value in this table. Questions were presented as multiple choice in the survey.

Qualitative results showed various treatment methods for adults with trauma. Trauma Informed Care (TIC) was mentioned by 15.8% of respondents which would suggest limited education in TIC. Numerous other respondents talked about concepts that are found in TIC, such as creating a positive environment, restoring a sense of power, and treating clients with compassion. Among respondents, 21.1% did not give a qualitative answer for question 13. Emotional regulation and freedom techniques were a common response with 26.3% of respondents mentioning the strategy. Consistent with the results from question 12, only 5.3% of respondents answered that they use polyvagal bodywork to treat trauma. Cognitive behavioral therapy was mentioned by 5.3% of respondents. Only 5.3% of respondents reported that spirituality can help trauma patients acutely. A common response (21.1%) was building a feeling of control, efficacy, and power within the client. Some respondents (21.1%) answered that they were not sure how to treat trauma in adults.

Trauma treatments for children differed slightly from adult trauma treatments. Among respondents, 10.5% did not answer the question. A substantial amount (31.6%) of respondents did not know how to treat trauma in children. Numerous occupational therapists (42.1%) do not practice OT in a pediatric setting, but a majority still gave answers about treating trauma in children. Respondent 15 stated, "Different areas are emphasized in children, but TIC is still used effectively." Respondent 11 furthers the sentiment by stating, "Same (treatment as adults) though we focus more on self-worth and a safe environment". Emotional regulation and freedom techniques were a common treatment with 31.6% of respondents recommending it as a method for treating trauma in children (5.3% more than treatment methods for adults).

Discussion

Occupational therapy, as a field, has a growing responsibility to treat the holistic client and not just treat their physical functioning. The current survey revealed trends that support holistic views and shines light on avenues in which further education could benefit occupational therapy outcomes and the shift to holistic health. Increased effectiveness of OT will occur when more information is understood about positive and negative trends in the field. Emotional trauma is a subject matter to treat, but occupational therapists interact with traumatized individuals nearly every day. Highlighting evidence-based treatments they use, and improving their efficacy is imperative to trauma treatments.

Consistent with holistic trends in the field of occupational therapy, most respondents (95%) in the current survey responded that they do utilize psychology in their job. Only 5% of participants responded that they do not (see Table 4). With 84% of respondents stating that they practice holistic care in occupational therapy and 68% of respondents stating that they practice TIC in occupational therapy, current survey results do reflect the trends in the field (see Table 4). Increased holistic health trends are positive developments for treating trauma. As mentioned previously, trauma manifests itself physically and mentally in the human body (Porges, 2017).

A continuing and updated education is paramount to all health fields, including occupational therapy. Evidence-based health trends are constantly changing and evolving to reflect researchers' understanding of the human body. Some of the respondents (26%) were unsure if they used TIC which could be a result of misunderstanding the question or could point to a lack of education on the subject. TIC was a treatment method mentioned by only 15.8% of respondents for treating trauma in both adults and children. Furthermore, 21.1% of respondents did not give a qualitative answer for question 13. The lack of education could be evidence of colleges neglecting education on holistic trauma treatment or different techniques used for trauma treatment. College programs may neglect to teach about various psychotherapeutic modalities to prevent therapists from infringing on the scope of various other health careers. In co-occurrence, the holistic health trend is accompanied by an interdisciplinary trend (Engum, 2012). For many circumstances, treatment teams utilizing interprofessional cooperation might be optimal.

Uncertainty over the scope of occupational therapy seems to be common when it pertains to general psychological treatments and spiritual discussions. Question 15 on the current survey revealed that 63% of respondents 'sometimes' felt limited by their perceived scope of care for occupational therapy (see Table 4). Only 37% said they never felt limited by the scope of care (see Table 4). Two routes arise from these results. Either the therapists do not feel adequately educated for certain situations, or a treatment team that includes psychotherapists would be advisable. As discussed earlier, research has found that therapists do feel inadequate to address spiritual topics within their scope of occupational therapy (Hemphill, 2015). Though some uncertainty over scope of care is likely due to education, other concepts are likely due to a lack of interdisciplinary healthcare. Healthcare is becoming increasingly complex and collaborative healthcare allows health professionals to share resources and provide the best interconnected care

possible for clients (American Psychological Association, n.d.). Emotional trauma is not solely the role of the occupational therapist to treat and interprofessional treatment teams would help distribute the treatment for emotional trauma. Interdisciplinary healthcare starts at the educational level and research has proposed an IPE curriculum model that promotes the ideas of interdisciplinary care (Engum, 2012). The guiding principles place patient safety as the top priority with concepts of teamwork, patient first, and quality care being intertwined and dependent on each other (Engum, 2012). An interdisciplinary culture encourages communication skills, team building, and increased professional support that ultimately benefit the clients (Engum, 2012). After education, implementation of an interdisciplinary culture in health facilities would be the next step. By responding to the perceived limitations with education and implementation, occupational therapists will feel better suited to meet the needs of clients in a modern world.

Building a psychological foundation for coping and overcoming trauma is important among the health field and, specifically, occupational therapists. As noted earlier, the mind and the body are intertwined so psychological treatments are important for the holistic health of clients. Healthy perspectives are essential for clients because they frame how trauma is viewed and the physical bodily responses. Unhealthy perspectives can produce maladaptive physical responses.

Current survey results suggest that longer tenured occupational therapists may tend to view TIC and holistic health as less important while less tenured occupational therapists tend to view TIC and holistic health as more important. The survey revealed a moderate negative correlation between length of time spent practicing occupational therapy and the views of participants on the importance of trauma informed care and holistic health. The moderate negative correlation among both concepts suggest that holistic health and TIC are linked by their traits. The average length of tenure in occupational therapy for respondents in the current survey was 10.98 years (see Table 2). The disconnect in views between therapist tenure and importance of TIC could represent a difference in education. Since the holistic health trend in occupational therapy has gained traction in the past 15-30 years, recently educated occupational therapists are likely educated more holistically than occupational therapists that have been practicing in the field longer (Rosch & Kearney, 1985).

Though opinions varied, the field had begun its attempt to shift towards more holistic practices in the 1970's (Etheridge, 1976). Research from 1987 examined whether the field of occupational therapy was in a crisis or had an opportunity for treating mental health (Bonder, 1987). Survey results in the field revealed that occupational therapists used mental health in their treatments significantly less in 1982 than in 1977 (Bonder, 1987). Furthermore, occupational therapists employed in mental health settings were reduced by a half even when the entire field saw a 75% increase in overall employment (Bonder, 1987). Though a desire to increase holistic health was present in the professional organization of occupational therapy, the field was starting to show worrying trends (Bonder, 1987). Some researchers even questioned if occupational therapy as a field was in danger of being eliminated (Vandamm, 1987). The 1980's included a shift to focus on the person's quality of life through screenings, education prevention, and health maintenance (Bonder, 1987). In 2016, AOTA adopted their Vision 2025: "Occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living." (American Occupational Therapy Association, n.d.). The vision reflects the holistic focus with health, well-being, and quality of life being entwined for a field's vision of the future.

Therapists with longer tenures likely have firm ideas about the career of occupational therapy in their minds. With the average tenure of respondents being 10.98 years, some responses likely reflected the culture of occupational therapy in the past (see Table 2). Educating longer tenured occupational therapists holistically would equip them to practice therapy in the modern world. Longer tenured therapists did not necessarily receive a holistic education, so further education should be encouraged to bridge the gap in opinions.

As expected, spirituality was a contentious topic among occupational therapists. Spirituality was utilized by 47% of the respondents in the current survey (see Table 4). A majority (53%) stated that they do not utilize spirituality in their practice. Limits on using spirituality as part of treating patients in an occupational therapy setting exist on a case by case basis. Some clinics ban the discussion of spiritual topics. Discussion on spiritual topics can quickly devolve into an "us" vs. "them" narrative that yields no positive results. Prior research discussed the ethical concerns related to discussing spirituality in an occupational therapy setting (Hemphill, 2015). Therapists need to understand how their clients' values and religious beliefs impact their decision making (Hemphill, 2015). The complexity of discussing spiritual topics

often sways therapists away, but honest discussions that respect boundaries often yield positive results (Hemphill, 2015). Current survey results reveal that 63% of respondents said that they ‘sometimes’ feel limited by the scope of occupational therapy for treating emotional trauma, 37% said they never feel limited, and 0% stated they often feel limited (Table 4, Question 15). The uncertainty about an occupational therapist’s role and ability to converse about spiritual topics with clients seems to influence the therapist’s readiness to address the topic. As previously discussed, education is of paramount importance and education about addressing spirituality in the occupational therapy setting should be better addressed in professional education.

Individual occupational therapists and their clients may also have internal beliefs that prohibit discussion about spiritual topics. Research regarding psychological counseling has shown that most individuals are willing to discuss their spirituality if the counselor is knowledgeable about concepts in their specific religion (Diallo, 2013). Cultural knowledge seems to provide a sense of security for those in counseling. Applying the conversation to the occupational therapy frame of reference, the burden seems to be on occupational therapists and their internal beliefs. Prior research has indicated that occupational therapists do not feel prepared to discuss spiritual topics with clients (Mthembu, 2015). Whether that lack of preparedness is due to insufficient education or internal beliefs that are conflicting is undetermined. Including spirituality in a plan for treating trauma has been found to be effective in some circumstances (Hemphill, 2015; Mthembu, 2015). Prior research has found that spirituality has been a neglected topic in healthcare education (Morris et al. 2012). Many therapists may not view spirituality as an important part of a holistic health treatment, but increased knowledge about spirituality in healthcare is important for providing the best care possible for clients. Though contentious, considering including spirituality in treatment plans should be an important aspect of a holistic education in occupational therapy, considering that holistic health incorporates the mind, body, and spirit (Hemphill, 2015).

Among the psychotherapeutic treatments mentioned earlier, Cognitive Behavioral Therapy (CBT) is a common treatment for trauma that increases internal resources for coping with trauma through changing one’s thoughts and emotions (Wheeler, 2007). Though only 5.3% of survey respondents mentioned CBT as an effective treatment, many of the ideas behind it were mentioned in the qualitative results. For instance, emotional regulation was a concept mentioned that focuses on healing the self through control over emotions (Sarsak, 2018).

Professional development to link the aspects that relate to CBT with the specific CBT treatment model would be beneficial for therapists to gain a better understanding of the concepts. The CBT treatment model would provide a more concrete, evidence-based treatment without relying on vague ideas related to CBT.

Limitations are prevalent in this survey because of a relative lack of resources to reach a greater number of individuals. A sample size of 19 is small and could potentially create skewed results. Though free response questions attempted to encourage more complex responses, the depth of the responses in survey research will innately be surface level. The survey questions were self-created because of the inability to find a reliable and valid survey to use for the purpose of this research. Therefore, the survey composition could have swayed respondents to provide answers that do not accurately reflect their views. Lastly, the survey research was likely predominantly completed by occupational therapists in the local area because of the distribution methods - emails to known occupational therapy practices in the local area and requests for forwarding to colleagues (i.e., snowball sampling). Occupational therapists outside of Rockingham and Augusta County likely were not the OTs completing the survey and as such the results may reflect only one small geographical area of OT practitioners.

Further research is needed to reveal larger trends in the field of occupational therapy. Comprehensive research with more respondents would provide responses that more accurately reflect actual trends in the field. Additional research could reveal whether age affects how therapists view the increase in holistic health as well as their subsequent usage of holistic treatment methods. Furthermore, the geographical location and setting (i.e., outpatient private practice, retirement community, school) that occupational therapists work in would be interesting concepts to examine in relation to holistic health and trauma treatment. In particular, comparing different geographical locations may yield important insights into differences in educational programming, as well as differences in spirituality and beliefs that may lead to diverse treatment modalities with clients.

Conclusion

Holistic health is incredibly important in the field of occupational therapy. Trends outside of this study show that holistic views have increased substantially as health fields have encouraged treating the mind and the body as interconnected (Hitch & Lhuede, 2015). This survey reveals that views of occupational therapists are highly holistic and reflect the trends in

the field. Though holistic health has progressed in current culture, length of time practicing in the field does have a negative corollary impact on holistic views. Occupational therapy is an important health field that uses evidence-based practices to treat the holistic person and this includes treating trauma, which can be a complex process. While holistic treatment is the trend for the field, the actual treatment a client receives will depend on the individual views of the occupational therapist with whom they work.

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