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An Examination of Benefits Between Massage Therapy and Mental Health

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Abstract

Mental health affects millions of people every year, which is why finding effective treatment methods are important. This paper goes into a deep dive into the practice of massage therapy and its promising intervention for treated mental health disorders. Studies on the physiology of psychiatric disorders on the mental and physical states of the body will be reviewed. Following the examination of the effect the disorders have on the body, an examination of the effects of massage therapy on the physical and mental aspects of a psychiatric disorder will be provided. The findings show that massage therapy works to reduce tension and pain in the physical body which begins to release neurotransmitters that effectively reduce symptoms of mental health disorders. Beyond the physical aspects of benefits, massage therapy has been shown to create a sense of calm and comfort in the environment of a massage room, ultimately reducing symptoms of mental health disorders. Massage therapy has become a valuable method for promoting mental health and well-being. The holistic approach addresses both the physical and psychological aspects of mental health disorders.

Keywords: massage therapy, mental health, anxiety, depression, ADHD

An Examination of Benefits Between Massage Therapy and Mental Health

One in every five adults in the United States will experience a mental illness (National Alliance on Mental Illness, 2023). Examples of these mental illnesses can range from the most prevalent disorders of anxiety and depression to the rarer ones like schizophrenia. The percentage of adults that have pursued treatment for their mental health disorders in 2021 was only 21.6% (Schiller & Terlizzi, 2022). The most common types of treatment include taking medications, attending psychotherapy, hospital treatment programs, and home remedies (Mayo Clinic, 2022). For the majority of the population with mental illnesses, it is difficult to admit to themselves that they need to seek treatment. Mental health is typically looked at as something that should be frowned upon, whereas in reality, it is so much more common than people chose to admit. As history has always shown, men see themselves as being superior to women. They continually hide anything that might make them look inferior or seen as having an issue. The CDC supports this idea even in the mental health aspect. They have reported that 24.7% of women received mental health treatment in 2019 whereas only 13.4% of men pursued treatment (CDC, 2019). Along with this, 20.6% of women chose to take medicine while only 10.7% of men accepted medication to take for their issue (CDC, 2019). The benefits of treating mental health needs to be more understood by the United States population without feeling ashamed. Along with understanding the already common treatment practices, alternative treatments should also be explored and become more common, like massage therapy.

Massage therapy was first documented in India around 3,000 B.C. This is where the first practices of Ayurveda, a practice of holistic medicine and healing, were documented (Concorde, 2020). This kind of practice was used in order to connect the body with the environment. Hindus believed that this “life health medicine” could ease pain, prevent, and cure illnesses, and heal

injuries (Florida Academy, 2019). Their belief was that illness and injuries happen when people out of sync with their environment. So, this style of massage is meant to restore the link between someone's natural physical body and natural balance in order to be able to heal naturally.

The practice of massage therapy eventually made its way to other countries who put their own spin on it. When the practice reached China, Buddhists and Taoists used the method of massage and combined it with traditional Chinese medicine and martial arts. They also believed that disease is a product of natural and spirit imbalances. Shortly after, Egypt and Japan were able to introduce important styles of massage including reflexology and Shiatsu. By the time the practice of massage reached Greece, there were so many different ways to use the practice. Greeks used massage on their athletes and combined it with various oils and herbs. Most famously, the "father of medicine," Hippocrates, even began treating patients with a new technique of friction along with being the first to prescribe massage with proper dieting and exercising. This is an important event since this idea is one of the biggest remedies in massage therapy today. In the Roman empire, massage therapy was used on the emperors and wealthy Romans in their homes while the public would rush to Roman baths to receive full body massages that would stimulate their circulation and improve mobility in their joints. People were beginning to look at massage therapy as a "spa" experience.

Eventually, America decided to join the massage therapy train in the 1700s by creating "rubbers" (Florida Academy, 2019). "Rubbers" were women who were hired by surgeons to massage orthopedic patients by manually rubbing on them. By the 1800s, they were referred to as a masseur or masseuse and became very popular. Swedish massage was introduced in the 1930s which escalated the practice of massage therapy in the United States. In today's day and

age, massage is looked at as restoring and maintaining healthy bodies. However, does that also include a healthy mind?

The human brain is extremely complicated and unexplored. There are about 86 billion neurons in an average person's brain (Caruso, 2023). This ironically is too much for the brain to even comprehend let alone understand how every neuron communicates and works. This leaves the door open to so many new treatment options for someone with mental health issues. It is already known that mental health is mainly treated with medications and psychotherapy (Mayo Clinic, 2022). It is also known that massage therapy has evolved over the last thousands of years in several different ways to help the body in many different techniques. However, it is still unknown the effects of how massage therapy can impact a person's mental health disorder. The majority of people who seek out massage therapy are mainly looking to restore their physical body instead of their mental health. It is so unknown to most people that massage therapy could be an alternative treatment option to those with mental health disorders.

I have had first-hand experience on how a massage can clear a person's mind and make them feel better as I have been a massage therapist working in a clinic for over a year. Clients typically come into the clinic with extreme stress and anxiety paired with their sore muscles. However, by the time they get off of my table, they are amazed at how much better they feel not just physically but mentally. So, how can we explain this sensation? In this paper, I will explore the research that has been published in regard to explaining the physiological aspects behind not only massage therapy, but also of normal psychiatric disorders and how they can be connected to help people.

1. How do psychiatric disorders develop and work in a human's brain?

In order to understand how massage therapy is beneficial to a person's mental health disorder, we must first understand the physiological aspect of how the disorder has developed and how it disrupts the brain. The brain itself is such a complex organ and still has so many unknowns. In attempts to create the best picture of how the affected brain works, a handful of specific disorders will be discussed.

2. How do various mental health disorders effect the physical body?

While the focus of this paper is to view the emotional effects of massage therapy, it is still crucial to fully understand how mental health effects the entire body. By exploring this question, we can better understand the concept of a mind and body connection. There are a countless number of actions in a person's day that requires a mind and body connection. So, what would happen if suddenly the mind stopped performing as well as it should?

3. How does massage therapy effect the physical body through physiology?

By asking this question, it is possible to get a baseline understanding of what is already going on during a massage. Before one can understand what is going on in the brain, they must first understand the physiological aspect of what is happening in the rest of the body. Are there certain effects that happen to only to physical body or are there some that improve both the body and the mind? This question will be able to be answered after an examination of the benefits on the physical body.

4. How can the practice of massage therapy impact a person's mental health disorder?

After understanding the background information of both mental health conditions and the physiology of massage, the question of whether massage therapy can improve someone's mental health disorder should be able to be answered. An examination of different techniques and practices will also be examined in order to see what best can help someone's mental disorder.

Overall, the purpose of this paper will be to evaluate what the connected benefits that massage therapy has on mental health disorders. The goal is to be able to provide another mental health treatment option to those who might need it.

Literature Review

In order to determine the effects of massage on mental health, a literature review was conducted. The first section, Physiology of Psychiatric Disorders, will discuss the physiology behind multiple disorders in order to understand what is going on deeper in the brain. The brain is responsible for keeping the human body moving and working correctly. If the brain does not work correctly, then nothing else will be able to either (U.S. National Science Foundation, 2015).

After understanding how the disorders of anxiety, depression, and ADHD work inside of the brain, we will then discuss how those disorders effect the physical body. It is important to understand that psychiatric disorders go farther than just the brain. By understanding this information, it will be easier to tie together the benefits of massage therapy and see how to physical practice can help someone's mental state.

The next section that is crucial to understand before we move to massage therapy and mental health is the physical benefits of massage therapy. In order to understand how massage therapy can help the mental and physical symptoms of various mental health disorders, then it is

important to first understand the physical toll that a mental health disorder can take on the human body.

The third section will explain how massage therapy affects the physical human body physiologically. Since the mind and the body are connected in extraordinary ways, what affects one side of the human body, affects the other. There needs to be an understanding of how massage can help mental health disorders on the physical side of things. The fourth section will then go into depth of the actual effects on the brain for disorders of anxiety, depression, and ADHD.

Physiology of Psychiatric Disorders

The human brain is an extremely complex organ that still has not been completely discovered. Scientists are continuing to map the basic anatomy of the brain, discovered new neural pathways, and understand the function of specific regions. The U.S. National Science Foundation (2015) compares the fact that neuroscientists do not even fully understand how information is able to be processed in the brain of a worm with several hundred neurons, let alone understanding how a human's brain that has 80 billion to 100 billion neurons.. In order to dive deeper into the idea of massage therapy potentially improving a person's psychiatric disorder, it is important to understand exactly how this disorder is affecting the brain and body. Mental health disorders are extremely common in today's world. Over 200 types of mental health disorders exist including anxiety, depression, ADHD, and post-traumatic stress disorder (Cleveland Clinic, 2022).

Anxiety

Anxiety is one of the most common psychiatric disorders in humans (Chand & Marwaha, 2023). There are several different versions of anxiety, but on a physiological level, they all begin

relatively the same way. Anxiety is a disorder that causes a feeling of fear and uneasiness (National Institute of Mental Health, n.d.). These disorders can appear with several different cognitive symptoms. Some of these symptoms include narrowing of attention, poor concentration, frightening thoughts, fear of negative thoughts from other people, and several others (Chand & Marwaha, 2023).

Anxiety is connected with the complex interactions inside of the brain, specifically the limbic system. The limbic system plays important roles in regulating emotions and feelings. The most important players that cause anxiety in the central nervous system of the body and norepinephrine, serotonin, dopamine, and gamma-aminobutyric acid, or GABBA. Also in the brain is a very important structure in the limbic system, the amygdala, that processes the information that comes from the prefrontal to the temporal and the hypothalamus (AbuHasan et al., 2023). This structure also plays a big role in creating fear and anxiety. When someone is introduced to a stressor in their life, the amygdala creates a series of physiological and psychological reactions. These reactions include someone's fight or flight. In a non-anxiety person, their prefrontal cortex would be the structure that regulates the fear response that is coming from the amygdala. However, in someone with anxiety, the cortex can not regulate properly which leads to those individuals feeling worry, fear, or any other symptom correlated with anxiety.

Depression

There are roughly 280 million people in the world that suffer from depression (WHO, 2023). This is one of the most common mental disorders in the world. There are many different causes in the brain that can lead to depression, but the most widely accepted is the imbalance of neurotransmitters in the brain. However, it is very important to understand which parts of the

brain are key players in creating depression. Some area that play a large role in a person's depression are the amygdala, the hippocampus, and the thalamus (Harvard Health Publishing, 2022).

The hippocampus is a structure in the brain that is responsible for processing long term memory. It has been shown that people with depression tend to have a smaller hippocampus (Harvard Health Publishing, 2022). This structure works hand and hand with the amygdala since remembering an emotion experience triggers the amygdala to create fear or other emotions. This activity is a large contributor to depression.

Attention Deficit Hyperactivity Disorder

Attention Deficit Hyperactivity Disorder, or ADHD, is a disorder that causes children and adults to have trouble paying attention, controlling their behaviors, and acting out (CDC, 2023). This is a very common disorder that typically appears during childhood. The American Psychiatric Association (2022) reported that around 8.4% of children and 2.5% of adults have been diagnosed with ADHD.

The brain is responsible for controlling a countless number of functions including regulating all physiological activities. Some examples of these activities include facilitating voluntary and involuntary movements, behavioral control, and regulating various moods and emotions. All of these activities are only possible with the use of neurotransmitters. In ADHD, it has been reported that there is a low level of neurotransmitters working between the prefrontal cortex and the basal ganglia (Thomas, 2022). If the basal ganglia are not working properly, then there will be dysfunction in the prefrontal cortex resulting in short attention span, decreased short-term memory, difficulty sustaining activities and being unable to fully think things through.

Physical Connection From the Brain to the Body

In order to understand how massage therapy can help the brain, there first needs to be an understanding of the physical toll that the psychiatric disorders take of the human body. It is common to just pay attention to the issues inside the brain and the feelings that it causes, but it is also important to know that mental problems can also show on the physical body.

Anxiety

Anxiety can develop multiple physical symptoms in the body that are not typically noticed. One symptom includes stomach pain or nausea. When someone becomes anxious, they can get a “pit in their stomach” which is coming from the nausea (Healthline, 2023). Anxiety can also cause increase in heart rate, rapid breathing, or shortness of breath. When someone gets nervous, they will begin to feel their heart rate increase which can worsen their anxious behaviors. This also comes with trembling, shaking, and muscle pain. With an increases heart rate, it causes involuntary muscular movements leading to shakiness. Finally, people can experience insomnia or other sleep issues. This is due to the constant thoughts rolling through their heads and being unable to turn their worries off.

Depression

Physical symptoms in depressive disorders are very common and can escalate the severity of the disorder. Some people who are not fully aware they have depression will visit the doctor with concern of their physical symptoms, not knowing that it is linked to the disorder. This makes diagnosing depression difficult. The physical pain comes from more than just a simple biological cause and effect. It comes from a mix of neurotransmitters, serotonin and norepinephrine, that effect both pain and mood. Physical symptoms of depression include aches and pains, chronic joint pain, arm or leg pain, back pain, digestive issues, insomnia, decreased appetite, overly tiredness, and physical motor changes (Madhukar, 2014).

Attention Deficit Hyperactivity Disorder

While the physical symptoms of anxiety and depression were more mild symptoms, ADHD can cause serious problems for the physical body. One of these symptoms include obesity. Binge eating is related to the signs of impulsivity which lead to unhealthy eating habits and gaining weight. ADHD can also cause epilepsy in some cases. Studies have shown that ADHD occurs in 10-30% of patients with epilepsy (Mental Health Clinic, n.d.). Restless Leg Syndrome is another common symptoms that comes from ADHD. The urge to move the body is very common with those with this disorder so they can experience symptoms of this while just sitting or while going to bed at night.

Physiology of Massage Therapy of the Body

When someone says massage, the first thing most people think of is relaxation. This idea is very true since getting a massage can create a very relaxing environment. However, there is far more to massage therapy than just the relaxation. Massage therapy can be beneficial in providing multiple benefits to the body on a physiological level. There are so many different kinds of massages in the world that are focused on providing unique benefits.

Physical Benefits

The first area that gets a large benefit from massage therapy is the Integumentary system, or the skin. The skin is the largest organ in the body and also the most visible. It is filled with nerve endings, capillaries, and connective tissues (Sense Massage Therapy, n.d.). These nerve endings are able to feel to light touch of a massage and send signals to the brain which lead to the release of endorphins. These endorphins make us feel happy and relaxed. Another benefit is the widening of the capillaries in the skin from the physical touch. This allows for skin elasticity,

nourishment, exfoliation, benefit hair follicles, and lead to healthier scalp of hair (Sense Massage Therapy, n.d.).

The next system that benefits from this practice is the circulatory system. When the pressure is applied to the body, there is an increase in blood supply sent to the touched area. This is a good thing because it introduces new blood with new nutrients to the area and gets rid of waste and lymph. The removal of lymph will assist in the removal of accumulated toxins and improve a person's immune system. It is important to massage the body towards the direction of the heart in order to promote as much venous return as possible and decrease the blood pressure (Sense Massage Therapy, n.d.).

The most recognizable benefits of massage therapy can be seen on the musculoskeletal system. As pressure is applied to the muscles, there are several mechanical responses that occur. These include creating heat and making the tissues more pliable, increasing the circulation of blood through the muscles, decreasing scar tissue and adhesions, and reducing tightness and pain inside the muscles. Massage therapy is mainly used to treat pains in a muscle, especially people's back and shoulders. Even if you were to fall down outside, most people's first instinct is to rub the area which seems to make it feel better. This is the same as the practice of massage therapy. Rubbing the area, while in pain or cramping, warms up the muscles and increases blood flow to the hurt area which reduces the pain (Sense Massage Therapy, n.d.).

Effects of Massage Therapy on Psychiatric Disorders

The practice of massage therapy can be extremely beneficial to both the physical part of the body and also the cognitive part of the body. It is most commonly known that massage therapy can help the body feel better physically and to relax, but it is not as common to think of massage as a method to relieve symptoms of various mental health illnesses. Massage therapy

works by instilling relaxation and reducing stress which can lead to alleviating symptoms of disorders like anxiety, depression, and ADHD. The soft human touch from a massage therapist can work wonders of the body like releasing tension and leading to a sense of comfort. This touch also leads to the release of endorphins that can elevate mood and provide a natural form of pain relief. Overall, massage presents a holistic approach to mental health treatment, piggybacking on traditional treatment options to give a sense of deeper relaxation.

Anxiety

Anyone who has had a massage can articulate the fully relaxed feeling after getting a massage. However, there is a deeper reason of why massage can make someone's anxiety slip away for a period of time following the massage. In 2011, a study was created by the Group Health Research Institute with the intent to investigate the effectiveness of massage therapy for people who suffer from anxiety (Sherman et al., 2011). This study found that massage can be an effective method of treating anxiety disorder treatments. The study included 68 participants who all suffered from anxiety and were randomly assigned to partake in one of three different treatment options. These treatment options included therapeutic therapy, thermotherapy, and relaxing room therapy. When ten sessions were completed over the course of twelve weeks, all participants showed an extensive amount of improvement in their anxiety symptoms.

Massage therapy is useful in relieving symptoms of anxiety in several ways. First, massage causes the body to reduce the cortisol levels in the body (ANTA, n.d.). Cortisol is known as the body's stress hormone and is equated with high levels of stress, anxiety, and depression. This is where the physical aspect of the body connects to the mental. When a muscle is tight or in pain, cortisol is released, increasing a person's stress levels. When a massage

releases that pain and tension in the muscles, then the brain is signaled to decrease the cortisol levels, leading to that relaxed feeling afterward.

Secondly, the process of massage therapy includes the benefit of promoting lymphatic drainage. The motion of pushing into the muscle physically pushes lymph and old blood out of the muscle leaving room for fresh fluids to come in. When a muscle is injured, metabolic waste can accumulate in the muscle creating fatigue, weakness, pain, and swelling. All of these things can increase the cortisol levels. By pushing out the metabolic waste and stimulating the lymphatic system, the person will experience a decrease in cortisol level and an increase in their freedom of movement. This allows a person to mentally feel better about their body and let go of their anxious thoughts.

Finally, getting a massage puts a person in a peaceful environment where they can attempt to shut their brain off and just fully relax. Massage is known to cause physical relaxation where the brain tells the heart rate and breathing to slow down. Slow breathing and heart rate allows a person to stay present in the moment and alleviate the symptoms of anxiety (ANTA, n.d.).

Depression

Depression is one of the most common mental health illnesses in the population. The treatment options for depression varied across different method types. It can be treated with medication, naturalistic approaches, environmental changes, or psychotherapy. Another way that is not typically mentioned is massage therapy. The soothing touches can help someone feel more like themselves and get away from the negative headspace that depression can put them in. Massage therapy offers a promising option for handling one's depression by focusing on not only the emotional symptoms of the condition, but also the physical.

Through the gentle touch of the tissues, massage therapy works to reduce the muscle tension and instill relaxation, allowing that person to ease out of the depressive symptoms. Some of the major players in depression are the inadequate levels of serotonin and dopamine. Through the touch of massage and the relaxation of the muscles, the body is able to release and increase amount of both hormones, increasing someone's mood. A study performed by the Touch Research Institute uses a group of women who are all breast cancer patients (Alpha School of Massage, 2018). It is obvious that these women would show signs of depression due to their illnesses. However, the study showed that after five weeks of receiving regular massages, they all ended up feeling less depressed. Aside from the increase of endorphins and serotonin, the act of massage can also instill a sense of calmness and allow someone to feel not alone. A major part of depression is feeling like there is no one around you, but with massage it allows them to feel like they are less lonely.

Attention Deficit Hyperactivity Disorder

People who have ADHD are said to have symptoms of sensory deprivation, especially those of children. ADHD causes people to have a short fuse and need to be physically or mentally doing something at all times. The hyperactivity needs to be able to be released or the person will have trouble acting normally, keeping focus, or concentrating. This bottled-up energy can then make someone with ADHD aggravated and hostile. However, during a massage, they are able to use their built-up energy in while their muscles are getting massaged and receiving the physical stimulation that they crave (Sachs, n.d.).

During an experiment performed by Touch Research Institute, thirty students that were diagnosed with ADHD between the ages of 7-18 years old were selected to see the effects of massage therapy (Cutler, 2006). The children were split up randomly into two groups. One group

received massage therapy for 20 minutes twice a week for an entire month, however, the second group did not get any intervention. After the month was completed, the group who received massage therapy showed a greater improvement in their short-term mood state and long-term classroom behavior than the group who did not receive massage.

Massage therapy can be very beneficial for those with ADHD because it addresses both their physical and psychological aspects of their conditions. The gentle touch of massage helps to reduce their hyperactivity and get them to enjoy being relaxed. This allows them to not only calm their body, but also their minds. The relaxation can also help them improve their focus and attention by reducing their sensory overload. By stimulating the release of dopamine and serotonin, massage can also help them regulate their mood and hyperactivity.

Conclusion

Mental health disorders are a serious matter that deserves more focus. These disorders are typically brushed under the rug in order to not look “crazy” or like an issue. The silence around mental health problems continue to build a barrier to treatment and understanding. Even though over 50 million Americans experience some kind of mental health illness, over 54.7% of those people do not seek any treatment for their problem (Mental Health America, 2023). In spite of this number of adults suffering from mental health conditions, societal stigmas and opinions cause these adults to keep their problems in secrecy and suffer in silence. Not only does this silence cause their problems to go untreated, but it as creates feelings of loneliness, shame, isolation, and misunderstanding. By breaking the mold of silence for mental health issues and providing effective treatment methods, more people who suffer from those issues will be more comfortable to seek help.

My first research question examined how various psychiatric disorders work in the brain on a physiological level. The brain is an extremely complicated organ that has still not been fully discovered. The brain has 80 to 100 million neuron connections that all play a part in who a person is (U.S. National Science Foundation, 2015). In order to learn how massage can help the body, it first needed to be understood how the physiological side of the mind works. After looking at the pathways and neurotransmitters involved in the disorders of anxiety, depression, and attention deficit hyperactivity disorder, it was clear that massage therapy could easily have a beneficial impact on them. Similarly to this research question, the second research question examined the effects that psychiatric disorders play on the physical body. Just like the mental effects, after examining how the physical body can be affected, it is clear how massage therapy can physically help mental health disorders.

The third research question went into depth on how massage therapy actually affects the human body. Research shows that massage therapy can improve the musculoskeletal, circulatory, and integratory system while also promoting lymph drainage (Sense Massage Therapy, n.d.). All of these improvements match with the effects that mental health disorders can do to the physical body. By improving those issues with massage, it verifies the fourth research question of how massage can be beneficial to each mental health disorder.

In conclusion, the evidence found from each research question strongly supports the ideas that massage therapy can be beneficial to those who suffer from a mental health disorder, especially anxiety, depression, and attention deficit hyperactivity disorder. Through different methods of massage therapy, it can provide relief from physical pain and tension but also help with the psychological aspect. The human body has a strong mind and body connection that tends to go unnoticed. However, if one part of the body is affected, for example from a

psychological disorder, then the physical part of the body can be just as affected. This is why in massage, the therapeutic touch of the hands can release the tension in the physical body and also the mental. As we continue to look like holistic medicine to assist in mental health treatment, including massage therapy into a treatment plan can provide a promising method in improving mental health challenged. While massage therapy is a great method for treating mental health disorders, it is still important that people seek professional help from their primary care physicians.

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