

Hitting The High Notes

The Benefits of Music for Mental Health

Percussion Play

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White Papers

Hitting the High Notes: The Benefits of Music for Mental Health

We have all experienced the feeling of euphoria that music gives us. In the right setting and in the right context, music can create a powerful feeling of well-being. In fact, listening to and playing music is one of the few activities that has been scientifically proven, time and time again, to lift our mood.

Something else which has been scientifically proven to enhance our mood is being outside. Often, going for a walk outside, even if for just five minutes, can make you feel calmer and more relaxed. Never, perhaps, has the essential positive psychological impacts of being outdoors been more apparent on a global scale than over the last two years, during the Covid-19 pandemic. The impacts of lockdown, isolation, guarantine, and restricted access to public outdoor spaces – as well as increased public anxiety around engaging and interacting with these – have made clear the correlations between having access to outdoor space and the maintaining a state of good mental health. Various studies have shown this correlation. Daniel J. Bowen and colleagues, for example, conducted a study in 2016 in Australia observing the relationship between 'Wilderness Adventure Therapy' (WAT) and improved psychological and psychosocial wellbeing in outpatient at-risk youth: a study which reported the act of spending time outdoors to have a statistically significant positive impact on the mental health of the adolescent participants involved in the research.¹ Another study, conducted in 2019 by G.N. Bratman and colleagues, joins together a broad variety of disciplinary perspectives from across the natural, social, and health sciences to draw several points of consensus concerning the positive effects of exposure to nature and the outdoors on people's emotional wellbeing, cognitive function, and other primary aspects of mental health.² Long ago, Percussion Play realized the positive impact that creating music and being outside – and, specifically, the combination of the two – can exert upon the psychological wellbeing of people of all ages and abilities, and has since created a range of outdoor musical instruments that not only allow for to people to create gorgeous harmonies but to do this in an outdoor setting. The outdoor musical instruments that Percussion Play create provide a unique and pleasurable way to facilitate improved psychological wellbeing. Numerous studies have shown that music is an activity which enriches us throughout our lives and creating music, especially when doing so outdoors has some surprising benefits for mental health, no matter what your age.

As stated by the Centers for Disease Control and Prevention (CDC), drawing on guidance from the World Health Organization (WHO), the term mental health 'includes our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make healthy choices'.³ Mental health is an 'integral and essential component' of overall health, is 'not merely the absence of disease or infirmity' and therefore — it is important to note — mental *health* means more than just the absence of mental illness. Mental illness refers to a broad range of medically recognizable and diagnosable conditions that result in the 'significant impairment of an individual's cognitive and rational abilities',⁴ whilst mental health is rather 'a state of well-being in which an individual realizes [their] own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to [their] community'.⁵ . Mental health is influenced by a variety of biological, developmental, genetic, psychosocial, circumstantial, environmental, and socioeconomic factors and can in many cases be managed by using prevention techniques, diagnosis, treatment and rehabilitation. Poor mental health is often associated with experiences of traumatic events, persistent socioeconomic pressures, violence, rapid social change, poor or difficult working conditions — including high stress environments — physical ill health, unhealthy lifestyles, and human rights violations.⁶

There are acknowledged to be over 200 classified forms of mental illness that we are aware of today⁷. These range from clinical depression and bipolar disorder to dementia, schizophrenia, and anxiety. Unfortunately, these illnesses are becoming more and more prevalent in society today, and this worldwide trend is sadly on the increase. Although many of these

⁴ Ibid.

⁶ Ibid.

¹ Bowen, Daniel J., James T. Neill, and Simon J. R. Crisp. 'Wilderness Adventure Therapy Effects on the Mental Health of Youth Participants'. *Evaluation and Program Planning*, vol. 58, 2016. pp. 49-59.

² Bratman, G. N. et al. 'Nature and Mental Health: An ecosystem service perspective.' *Science Advances*, vol. 5, 2019. pp. 1-14.

³ Centers for Disease Control and Prevention. 'About Mental Health: Mental Health Basics'. CDC, June 28th, 2021.

⁵ 'Mental Health: Strengthening our Response'. Fact Sheet no. 220. World Health Organization (WHO), March 30th 2018.

⁷ Canadian Mental Health Association. 'Workplace Mental Health Promotion: A How-To Guide.' Works Well: Healthy Minds, Healthy Business. CHMA, 2010.

illnesses rely on prescription medicine for their management, there are - in addition - many holistic, alternative, and natural ways to alleviate some of the suffering, manage symptoms, and stabilize mood. One proven way is through music and music therapy.

Because symptoms of mental ill health may include changes in mood, anxiety levels, energy levels, motivation, and social capacity – often causing extreme difficulties in engaging with the outside world – any activity which allows and encourages the person experiencing poor mental health to engage, create, and reconnect with the outside world can enable new pathways in the brain to be forged or rewire, thus having a positive impact on the brain's chemistry. It may enable them to overcome or live more manageably with some of the symptoms of their illness, both in the short term and in the long term.

The Benefits of Music for Mental Health

Music can positively affect people's mental health, increase feelings of peace and provide a healthy diversion from the stresses of everyday life. One of the many studies demonstrating this is Bednarz & Nikkel's examination of the effects of music therapy on mental illness. The experiment found a marked improvement in the quality of life among clients who were exposed to music therapy.⁸

The study concluded that music therapy can be extremely beneficial to both the prevention of poor mental health and to the rehabilitation and assistance of someone already living with mental illness. One possible reason for this is that music can really affect an individual's ability to regulate their emotions⁹. The ability to regulate emotions is an essential component of mental health and emotional dysregulation (the inability to or difficulty with regulating and safely managing emotions and mood) is closely associated with many psychiatric disorders, such as depression, generalized anxiety disorder, bipolar disorder, borderline personality disorder, and various others. Clinical music therapists and occupational therapists recognize the power that music can have in the management of emotions, and are able to harness the power of music to help their patients and clients to achieve better mood states, understand and channel emotions, and even to help relieve the symptoms of some psychiatric disorders.¹⁰

Researchers have also found that music can affect mood. For example, in a small study conducted by Choi, Soo Lee, & Lim in 2008, 26 patients with mental illnesses (including mood disorders) were assigned to either a music intervention group or to a routine care group. The study found that after 15 weekly sessions, those in the music intervention group showed signs of significant improvement with their depression, anxiety, and relationships when compared to the control group.¹¹ More recently, psychotherapist Eric Pfeifer has published a series of papers and chapters centered on the impact that music therapy – and, specifically, outdoor music therapies – can exert on people's mental health. In 2017, in a chapter called 'Music-Nature-Therapy: Outdoor Music Therapy and Other Nature-Related Approaches in Music Therapy', Pfeifer describes Outdoor Music Therapy (OdMT) as an emergent field or set of therapeutic practices exploring what it means to incorporate the environment, or elements of the natural world into music therapies. He explores the effects of moving music therapies outdoors – into forests, car parks, caves, and other outdoor locations, describing the ways in which being outside and specifically making music outside can enable people to feel more grounded, attuned and connected, both to their surrounding environment and to their own interior emotions. Pfeifer explains: 'there is movement, development, expression and extension, metamorphosis, modulation, growth' when music therapy is moved outside.¹² Drawing on studies from music therapy frameworks and beyond, Pfeifer's study demonstrates the ways in which OdMT enables participants to experience the rhythms and textures of sound differently – and specifically in more actively healing or therapeutic ways – when music is played and heard outdoors.

The fact that music has been proven to enhance mood, increase feel-good feelings and improve emotion regulation are all powerful indicators that music and music therapy may provide one of the best, and certainly the most accessible, holistic

¹⁰ Ibid.

⁸ Bednarz, Linda F and Bob Nikkel. 'The Role of Music Therapy in the Treatment of Young Adults Diagnosed with Mental Illness and Substance Abuse.' *Music Therapy Perspectives*, vol. 10, no. 1, 1992, pp. 21-26.

⁹ Medical News Today. 'How Music Listening Habits Affect Mental Health.' Medical News Today, 2015.

¹¹ Choi, Ae-Na, Myeong Soo Lee and Hyun-Ja Lim. 'Effects of Group Music Intervention on Depression, Anxiety, and Relationships in Psychiatric Patients: A Pilot Study.' *The Journal of Alternative and Complementary Medicine*, vol. 14, no. 5, 2008.

¹² Pfeifer, Eric. 'Music-Nature-Therapy: Outdoor Music Therapy and Other Nature-Related Approaches in Music Therapy.' *Environmental Expressive Therapies: Nature Assisted Theories and Practice*, edited by Alexander Kopytin and Madeline Rugh, Routledge, 2017.

approaches to improving mental health available to us today. As various emerging studies are beginning to show, too, this positive effect seems to be multiplied when music therapies are engaged with in outdoor environments. This is why outdoor musical instruments such as those produced by Percussion Play can have such a beneficial influence. Playing these types of instruments is an easy and enjoyable way to create a quick burst of all of those feel good endorphins, to give space for emotions to be understood and processed, and to provide distraction from the everyday stresses of life, both large and small. Even a short music session can go a long way to improving mental health.

The Benefits of Music for Bipolar Disorder and Depression.

The American Psychological Association characterizes bipolar disorder (also known as manic depression or manic depressive disorder) as 'a serious mental illness in which common emotions become intensely and often unpredictably magnified. Individuals with bipolar disorder can quickly swing from extremes of happiness, energy and clarity to sadness, fatigue and confusion'. ¹³ They explain that '[a]II people with bipolar disorder have manic episodes – abnormally elevated or irritable moods that last at least a week and impair functioning. But not all become depressed.'¹⁴ These shifts in mood and energy level are known to severely impact the important areas of functioning and the social interactions of an affected individual. The National Institute of Mental Health estimates 5.7 million or 2.6 per cent of adults in the US are affected by bipolar disorder every year.¹⁵ However, it is likely that the actual number of sufferers might be much higher, as it is not unusual for symptoms to present themselves in the late teens. In fact, 50% of diagnosed bipolar cases started before the age of 25.¹⁶ More than two thirds of people living with a bipolar disorder diagnosis have at least one close relative or family member either also diagnosed with bipolar disorder, or with unipolar major depression. This data tends to indicate that bipolar disorder may discernibly have a heritable component.¹⁷

One of the reasons why playing musical instruments can be so beneficial for those living with bipolar disorder and other serious mental illnesses is due to the fact that human beings function in cooperation with a series of both physiological and psychological rhythms. When these rhythms are out of sync – as in the case of people living with bipolar disorder – this can have a serious impact on mood, emotional regulation, perceptions of reality, anxiety levels, and much more. Our internal twenty four hour clock, or circadian rhythm, is also essential to the maintenance of human health and psychological well-being. A circadian rhythm or cycle is an automatic internal process that regulates the twenty four hour sleep-wake cycle. This applies to all living organisms – including plants, animals, and microbes – and refers to the physical, behavioural, and psychological changes that are generally undergone each twenty four hours. As humans, if our circadian rhythms are out of sync due to lack of sleep, for example, our internal systems can become maladjusted, sometimes resulting in disruptive and intrusive thought patterns, psychotic symptoms (such as hallucinations or delusions), heightened anxiety and paranoia levels, changes in appetite and energy levels, and low mood or depressive symptoms.¹⁸

Playing music, crucially, can help to re-establish and re-balance these circadian, physiological and psychological internal rhythms because — as Mark Lincoln describes in his 2016 study of bipolar disorder and musical play — a sense of rhythm is 'so fundamental to humans that we recognize patterns in music without paying any attention or receiving any training'.¹⁹ In his study, Lincoln engages with various strands of scientific research examining the role of circadian rhythms in order to consider the effects that musical play can exert as a therapy form for treating and managing the symptoms of bipolar disorder.²⁰ This sense that musical rhythm can aid with the realignment of internal rhythms — an idea which is gaining traction even within the scientific community — means that when we play musical instruments, even if only beating out a simple rhythm on a drum, our brains are subconsciously responding to the patterns in the sounds and attempting to predict the rhythmic patterns of the

 ¹³ American Psychological Association. *Bipolar Disorder*. APA: Psychology Topics, 2020. <u>https://www.apa.org/topics/bipolar-disorder</u>
¹⁴ Ibid.

¹⁵ Depression and Bipolar Support Alliance. 'Bipolar Disorder Statistics.' <u>https://www.dbsalliance.org/education/bipolar-disorder/bipolar-disorder-statistics/</u>

¹⁶ Kessler, RC et al. 'Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication.' Arch Gen Psychiatry, vol. 62, no. 6, 2005. pp. 593-602.

¹⁷ Depression and Bipolar Support Alliance. 'Bipolar Disorder Statistics.' <u>https://www.dbsalliance.org/education/bipolar-disorder/bipolar-disorder-statistics/</u>

¹⁸ Lincoln, Mark. 'Bi-polar Disorder and the Healing Power of Music.' *Jamplay LLC*, 2016. <u>https://jamplay.com/articles/1-general/96-bi-polar-disorder-and-the-healing-power-of-music</u>

¹⁹ Ibid.

²⁰ Ibid.

music.²¹ This pattern can encourage our internal rhythms to begin to rewire and re-establish themselves, as well as harmonize with the rhythm of the music. Playing music also works as a social facilitator within groups of individuals. Even in the creation of basic rhythms in group musical play, this harmonization and collective creative effort can aid with the forming of emotional and psychosocial connections. This unforced and organic social interaction can really help those with bipolar disorder to reconnect with those around them.

Outdoor musical instruments such as those designed and produced by Percussion Play might therefore have a really important place in the therapy for people living with bipolar disorder. Plenty of research is showing that even engaging with music or musical instruments for a short period of time can have a long-lasting impact on an individual's mood, ability to regulate and communicate emotions, concentration, creativity, anxiety levels, and more.²² Most recently, this effect has been examined in relation to how musical engagement has enabled different people to process, engage with, and cope with various difficult and complicated emotions and emotional states resulting from the impacts of the Covid-19 pandemic. One study, conducted in 2021 by Pastora Martínez-Castilla and colleagues has exhibited the ways in which musical engagement has been hugely beneficial for the mental health of various vulnerable groups during extended periods of lockdown and isolation.²³ The study especially showed how 'the people who have been reported to be emotionally more vulnerable during the lockdown, due to either a strong impact on their daily lives or their lower resilience, perceive a higher benefit from musical behaviors'.²⁴ The idea that the most emotionally vulnerable participants (including those with pre-existing mental health conditions such as bipolar disorder and other mood disorders such as depression) were the most significantly impacted by musical engagement during periods of isolation and lockdown is demonstrative of the fact that musical engagement can and should - be a valid and veritable part of mental health management for those living with mental illnesses, as well as those without. Indeed, the fact that music has been proven to help especially with emotional and mood regulation also suggests that people living with bipolar disorder may be a group that experience particularly significant benefits from this type of therapy.

The Benefits of Music for Schizophrenia and Schizophrenia-like Disorders

The American Psychological Association (APA) defines schizophrenia as 'a serious mental illness characterized by incoherent or illogical thoughts, bizarre behavior and speech, and delusions or hallucinations, such as hearing voices'.²⁵ Often, this means that a person with schizophrenia may not always be able to distinguish their own thoughts and ideas from reality. As explained by the National Institute of Mental Health, '[s]chizophrenia is typically diagnosed in the late teen years to the early thirties and tends to emerge earlier in males (late adolescence – early twenties) than females (early twenties – early thirties). A diagnosis of schizophrenia often follows the first episode of psychosis, when individuals first display symptoms of schizophrenia. Gradual changes in thinking, mood, and social functioning often begin before the first episode of psychosis, usually starting in mid-adolescence. Schizophrenia can occur in younger children, but it is rare for it to occur before late adolescence'.²⁶ Typically, schizophrenic symptoms can be subdivided into three primary categories:

• **Psychotic symptoms:** these include alterations in perception (e.g. sensory changes in vision, touch, taste, smell, hearing), and abnormal thinking and behaviors. Specifically, individuals tend to experience: **delusions**, i.e. firmly held beliefs which are not supported by any objective reality, often manifesting as paranoid delusions (such as irrational fears around being 'in danger' or delusions of grandeur (an individual with such delusions may believe, for example, that they alone are responsible for collecting and relaying high-importance secret messages to world leaders); hallucinations, such as seeing things that aren't actually there, or hearing voices; and thought disorder, which manifests as disorganized or nonsensical speech or thought.

²¹ Gaebel, Christine, et al. 'Study protocol of the MUSED study: A randomized controlled trial to evaluate the psychobiological effects of group music therapy in women with depression.' *Nordic Journal of Music Therapy*, vol. 30, no. 2, 2021. pp. 131-156.

²² Leung, Man Chong, and Rebecca YM Cheung. "Music engagement and well-being in Chinese adolescents: Emotional awareness, positive emotions, and negative emotions as mediating processes." *Psychology of Music*, vol. 48, no. 1, 2020. pp. 105-119.

²³ Martínez-Castila, Pastora et al. 'The Efficacy of Music for Emotional Wellbeing During the COVID-19 Lockdown in Spain: An Analysis of Personal and Context-Related Variables.' *Frontiers in Psychology*, vol. 12, 2021.

²⁴ Ibid.

²⁵ American Psychological Association. Schizophrenia. Adapted from the Encyclopedia of Psychology, 2000. <u>https://www.apa.org/topics/schizophrenia</u>.

²⁶ National Institute of Mental Health (NIMH). 'Schizophrenia'. *Health Topics*, National Institute of Mental Health, 2020. <u>https://www.nimh.nih.gov/health/topics/schizophrenia</u>

- Negative symptoms: these include the development of growing disinterest in previously held hobbies, social withdrawal, difficulty showing emotions. Specifically, people tend to experience: reduced motivation and difficulty planning, beginning, and sustaining activities, as well as decreased pleasure in everyday activities and life, the 'flat effect', which refers to a reduction in expression of emotions, typically discernible through tone of voice or facial expressions, and reduced communication usually in the form of speaking less.
- **Cognitive symptoms:** these include difficulties with attention, memory, and concentration. For some people living with schizophrenia, these symptoms are more subtle, but for others, they can have a significant negative impact on a person's ability to participate in daily life. Specifically, individuals tend to experience **poor focus or difficulties with concentration**, either over long or short periods of time, **difficulty processing** information in order to make decisions, and **problems applying** or using information after receiving it. ²⁷

Schizophrenia is a serious psychological disorder that tends to have a considerable impact on individuals experiencing the illness and their families or loved ones. It may take a life-long course, although full recovery is also observed in a proportion of cases. Symptoms of schizophrenia are usually classified as 'positive' (where something is added, such as hallucinations or paranoid ideation) and 'negative' (where something is missing, such as the ability to express oneself emotionally or to form satisfying relationships with others). In 2009, research by Professor Christian Gold,²⁸ the principal researcher at the Grieg Academy Music Therapy Research Centre in Norway, found that music therapy was particularly beneficial to the aspects of schizophrenia that are linked to losing and regaining creativity, emotional expressiveness, social relationships and motivation. A more recent 2017 study into the effects of music therapy on people with schizophrenia concluded that: 'music therapy as an addition to standard care helps people with schizophrenia to improve their global state and may also improve mental state and functioning if a sufficient number of music therapy sessions are provided'.²⁹

The reason why engaging with music and playing musical instruments can be so beneficial to people living with schizophrenia and illnesses which resemble it – such as schizoaffective disorder – is because research has shown that sometimes people with serious psychological disorders are too disturbed to use verbal language effectively or to engage with others in an appropriate or communicative way. Clinical reports suggest that music therapy for people with serious psychiatric disorders often relies upon a mixture of active and receptive techniques because musical improvisation and verbalisation of the musical interaction are often central. Whilst antipsychotic medications – usually employed as primary treatment and management of schizophrenia and related illnesses – are documented to generally aid with the positive symptoms of schizophrenia-like disorders (hallucinations and delusions), they are limited in their capacity to reduce negative and cognitive symptoms, such as depressive symptoms or demotivation. Both first and second-generation antipsychotics also bring with them a range of side-effects, which are often severe. It is therefore essential, research suggests, to combine holistic and alternative therapies with Western medicine in the treatment and management of severe mental illnesses such as schizophrenia.³⁰ Music therapy, psychologists suggest, is one such effective method in this area.³¹ Providing opportunities for those with serious psychiatric disorders to play musical instruments as part of their day to day activities is therefore becoming increasingly common in institutions and rehabilitation centres across the globe, with overwhelmingly positive results.

Part of why playing musical instruments — like those produced by Percussion Play — can be so effective is because often those experiencing the symptoms of serious mental disorders can find that playing instruments or engaging musically allows them the opportunity to communicate and express their emotions and experiences more easily and authentically with those around them, rather than solely having to rely on verbal communication. It has been noted by psychologists such as Rolvsjord in 2001 and Solli in 2008 that music therapy can have 'unique motivating, relationship building and emotionally expressive

³¹ Ibid.

²⁷ Ibid.

²⁸ Gold, C. et al. 'Dose-response relationship in music therapy for people with serious mental disorders: Systematic review and meta-analysis.' *Clinical Psychology Review*, vol. 29, no. 3, 2009.

²⁹ Geretsegger, Monika et al. 'Music therapy for people with schizophrenia and schizophrenia-like disorders.' *Cochrane Database System Review*, vol. 29, no. 5, 2017. pp. 1-86.

³⁰ Jia, Ruiying et al. 'The effectiveness of adjunct music therapy for patients with schizophrenia: A meta-analysis.' *Psychiatry Research*, vol. 293, 2020.

qualities that may help even those who do not benefit from verbal therapy'.³² There is evidence that musical interaction also increases the quality of life of people living with mental illness.³³ More recent studies have confirmed these positive impacts. For example, a meta-analysis conducted by Jia Ruiying and colleagues which systematically considered the effects of adjunct music therapy on schizophrenia showed that whilst the long-term effects were in need of further investigation, music therapy appeared to be an extremely promising therapeutic form to be used in the treatment of schizophrenia. The study showed that adjunct music therapy 'significantly improved' negative symptoms, depression symptoms, and quality of life in people living with schizophrenia compared with the study's control group.³⁴

The Benefits of Music for Relieving Stress and Anxiety

The benefits of music for those experiencing feelings of anxiety, or those living with anxiety disorders, are also well documented. One study in particular concluded that the use of music in a single therapy session decreased anxiety and promoted relaxation, 'indicated by decreases in heart rate and respiratory rate'³⁵ A second study found that there was a significant improvement in mood among subjects in the 'music intervention' group and there were significant main effects over time for heart rate and systolic and diastolic blood pressure, which indicated a generalized physiologic relaxation response 36 . In more recent research, a meta-analysis conducted in 2021 examined the impacts of music therapy on participants experiencing high anxiety levels, primarily those living with anxiety disorders. Using data collected from almost 2,000 participants, the study showed clearly that music therapy 'significantly reduced anxiety compared to the control group at post-intervention³⁷ Although the study concluded that further research was needed to confirm whether these positive impacts could have a long-term significant impact on mental health and overall anxiety levels, the initial results were promising, and demonstrated that musical engagement is certainly an effective therapeutic method for allowing people to experience relief from severe anxiety symptoms.³⁸ Another recent study has considered the effects of music therapy on people experiencing anxiety symptoms (as well as depressive symptoms) as a result of a series of neurological disorders. The study found that musical engagement - specifically music therapies - enabled a significant improvement in anxiety symptoms in the participants, as well as noting that this form of therapy can, 'at the psychological level [...] engage several social functions, can increase communication and social cohesion and promote empathetic relationships [as well as] positively affect the mood and consequently the rehabilitative process'.³⁹

Music has been proven to have a unique link to our emotions and playing music can be an extremely effective stress management tool. Listening to music can make us feel more relaxed and has a physiological effect in that it slows the pulse and the heart rate, lowers blood pressure, and decreases levels of stress hormones such as cortisol. Singing along can also be a great release of tension and often can help to alleviate feelings of stress. Because music absorbs our attention, it has the potential to act as a distraction at the same time as it can aid people in efforts to explore emotions. This means it can be a great aid to meditation, helping to prevent the mind from wandering.

Because music influences us both psychologically and physiologically, playing musical instruments can reduce tension and facilitate the relaxation response. Producing music in an improvisational way can also help us become more aware of our emotional reactions and share them constructively with others. Percussion Play recognize this and create outdoor musical instruments which are designed to be played in a number of different ways and which encourage improvisation and collaboration.

³² Ibid.

³³ Ibid.

³⁴ Ibid.

³⁵ Chlan Linda. 'Effectiveness of a music therapy intervention on relaxation and anxiety for patients receiving ventilatory assistance.' *Heart and Lung*, vol. 27, no. 3, 1998. pp. 169-176.

³⁶ Ibid.

³⁷ Lu, Guangli. 'Effects of music therapy on anxiety: A meta-analysis of randomized controlled trials.' *Psychiatry Research*, vol. 304, 2021.

³⁸ Ibid.

³⁹ Raglio, Alfredo et al. 'Effects of Music and Music Therapy on Mood in Neurological Patients.' World Journal of Psychiatry, vol. 5, no. 1, 2015. pp. 68-78.

The Benefits of Being Outdoors for Mental Health

In 2013, the mental health charity *Mind* released 'Feel Better Outside, Feel Better Inside',⁴⁰ a report that included new findings from the University of Essex which showed the many benefits of Ecotherapy for mental well-being. Ecotherapy is the name given to a wide range of treatment programmes which aim to improve mental health and physical well-being through participating in outdoor activities in nature. Ecotherapy has been proven to improve mental health, boost self esteem, help people with mental health problems return to work, improve physical health, and reduce social isolation, as many studies and analyses show. is One study, conducted in 2019, considered the positive impacts of a program of outdoor adventures on the mental health of a group of adolescents as an alternative to time spent indoors, particularly screen time (ST). The study found significant improvements in the overall psychological and psychosocial wellbeing of the participants in the study after participating in the outdoor program.⁴¹ Another recent study – which focused specifically on the combination of relaxation based music therapy and being outdoors in a natural setting – showed that the 'combination of music therapy and silence in a natural setting' to be 'significantly effective' for improving mental health, and recommended that combining silence, nature, and music 'should be further explored' due to its role as an 'effective [...] method' for both individual and group therapies.⁴²

The benefits of being outdoors for mental and physical well-being are clear, and combining music making with being outdoors increases the benefits of both of these activities. Indeed, the sounds of the outdoors like birdsong, water, or rustling tree branches are often incorporated into meditation or soothing CDs and playlists which are designed to aid relaxation. Having musical instruments in an outdoor setting can therefore be even more beneficial for relieving feelings of stress than having instruments in an inside space.

The Power of Percussion Play

The outdoor musical instruments created by Percussion Play are diverse and accessible to everyone and make perfect additions to any setting, particularly gardens and social spaces in schools, care homes, nursing homes, hospices and hospitals, where they can be used and enjoyed by all who encounter them. Anyone and everyone can access the mental health benefits that playing these wonderful instruments provides and Percussion Play instruments are currently being installed in a variety of settings all over the world.

⁴⁰ Mind. Feel Better Outside, Feel Better Inside. Ecominds, 2013. pp. 1-47.

⁴¹ Mutz, Michael et al. 'Outdoor Adventures and Adolescents' Mental Health: Daily Screen Time as a Moderator of Changes.' *Journal of Adventure Education and Outdoor Learning*, vol. 19, no. 1, 2019. pp. 56-66.

⁴² Pfeifer, Eric et al. 'Enhanced Relaxation in Students after Combined Depth Relaxation Music Therapy and Silence in a Natural Setting.' *The Arts in Psychotherapy*, vol. 63, 2019. pp. 68-76.

References

American Psychological Association. *Bipolar Disorder*. APA: Psychology Topics, 2020. <u>https://www.apa.org/topics/bipolar-disorder</u>

American Psychological Association. *Schizophrenia*. Adapted from the Encyclopedia of Psychology, 2000. <u>https://www.apa.org/topics/schizophrenia</u>

Bednarz, Linda F and Bob Nikkel. 'The Role of Music Therapy in the Treatment of Young Adults Diagnosed with Mental Illness and Substance Abuse.' *Music Therapy Perspectives*, vol. 10, no. 1, 1992. pp. 21-26.

Bowen, Daniel J., James T. Neill, and Simon J. R. Crisp. 'Wilderness Adventure Therapy Effects on the Mental Health of Youth Participants'. *Evaluation and Program Planning*, vol. 58, 2016. pp. 49-59.

Bratman, G. N. et al. 'Nature and Mental Health: An ecosystem service perspective.' Science Advances, vol. 5, 2019. pp. 1-14

Canadian Mental Health Association. 'Workplace Mental Health Promotion: A How-To Guide.' Works Well: Healthy Minds, Healthy Business. CHMA, 2010.

Centers for Disease Control and Prevention. 'About Mental Health: Mental Health Basics'. CDC, June 28th, 2021.

Chlan Linda. 'Effectiveness of a music therapy intervention on relaxation and anxiety for patients receiving ventilatory assistance.' *Heart and Lung*, vol. 27, no. 3, 1998. pp. 169-176.

Choi, Ae-Na, Myeong Soo Lee and Hyun-Ja Lim. 'Effects of Group Music Intervention on Depression, Anxiety, and Relationships in Psychiatric Patients: A Pilot Study.' *The Journal of Alternative and Complementary Medicine*, vol. 14, no. 5, 2008.

Depression and Bipolar Support Alliance. 'Bipolar Disorder Statistics.' <u>https://www.dbsalliance.org/education/bipolar-disorder-statistics/</u>

Gaebel, Christine, et al. 'Study protocol of the MUSED study: A randomized controlled trial to evaluate the psychobiological effects of group music therapy in women with depression.' *Nordic Journal of Music Therapy*, vol. 30, no. 2, 2021. pp. 131-156.

Geretsegger, Monika et al. 'Music therapy for people with schizophrenia and schizophrenia-like disorders.' *Cochrane Database System Review*, vol. 29, no. 5, 2017. pp. 1-86.

Gold, C. et al. 'Dose-response relationship in music therapy for people with serious mental disorders: Systematic review and meta-analysis.' *Clinical Psychology Review*, vol. 29, no. 3, 2009.

Jia, Ruiying et al. 'The effectiveness of adjunct music therapy for patients with schizophrenia: A meta-analysis.' *Psychiatry Research*, vol. 293, 2020.

Kessler, RC et al. 'Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication.' *Arch Gen Psychiatry*, vol. 62, no. 6, 2005. pp. 593-602.

Leung, Man Chong, and Rebecca YM Cheung. "Music engagement and well-being in Chinese adolescents: Emotional awareness, positive emotions, and negative emotions as mediating processes." *Psychology of Music*, vol. 48, no. 1, 2020. pp. 105-119.

Lincoln, Mark. 'Bi-polar Disorder and the Healing Power of Music.' *Jamplay LLC*, 2016. <u>https://jamplay.com/articles/1-general/96-bi-polar-disorder-and-the-healing-power-of-music</u>

Lu, Guangli. 'Effects of music therapy on anxiety: A meta-analysis of randomized controlled trials.' *Psychiatry Research*, vol. 304, 2021.

Martínez-Castila, Pastora et al. 'The Efficacy of Music for Emotional Wellbeing During the COVID-19 Lockdown in Spain: An Analysis of Personal and Context-Related Variables.' *Frontiers in Psychology*, vol. 12, 2021.

Medical News Today. 'How Music Listening Habits Affect Mental Health.' Medical News Today, 2015.

'Mental Health: Strengthening our Response'. Fact Sheet no. 220. World Health Organization (WHO), March 30th 2018.

Mind. Feel Better Outside, Feel Better Inside. Ecominds, 2013. pp. 1-47.

Mutz, Michael et al. 'Outdoor Adventures and Adolescents' Mental Health: Daily Screen Time as a Moderator of Changes.' *Journal of Adventure Education and Outdoor Learning*, vol. 19, no. 1, 2019. pp. 56-66.

National Institute of Mental Health (NIMH). 'Schizophrenia'. *Health Topics*, National Institute of Mental Health, 2020. <u>https://www.nimh.nih.gov/health/topics/schizophrenia</u>

Pfeifer, Eric et al. 'Enhanced Relaxation in Students after Combined Depth Relaxation Music Therapy and Silence in a Natural Setting.' *The Arts in Psychotherapy*, vol. 63, 2019. pp. 68-76.

Pfeifer, Eric. 'Music-Nature-Therapy: Outdoor Music Therapy and Other Nature-Related Approaches in Music Therapy.'

Environmental Expressive Therapies: Nature Assisted Theories and Practice, edited by Alexander Kopytin and Madeline Rugh, Routledge, 2017.

Raglio, Alfredo et al. 'Effects of Music and Music Therapy on Mood in Neurological Patients.' *World Journal of Psychiatry*, vol. 5, no. 1, 2015. pp. 68-78.

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