

A Study of Music: Music Psychology, Music Therapy, and Worship Music

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Abstract

There are three specific fields related to music: the psychology of Music and how it affects human brain and functions, the methodology of Music Therapy and how it affects individuals undergoing treatment, and the psychological effects of Worship Music and how it can be used in music therapy. Music therapy is a growing field in which the therapeutic outcomes greatly benefit the patients. The overall purpose is to create a greater understanding of music and music therapy in order to provide a system for introducing group worship services into music therapy to ultimately bring spiritual healing to individuals.

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A Study of Music: Music Psychology, Music Therapy, and Worship Music

Music has a profound influence on humanity and its effects can be seen throughout history. It is a form of expression that can be understood among all nations. Regardless of the language of the written text, people can communicate through music, which has the power to unify through emotional expression. Music also has the ability to affect the way that people think and feel. Some pieces of music cultivate peacefulness and stimulate thinking, while other musical works incite rage or cause emotional pain. Psychologists have studied the way that music affects people and have used those findings to create the field of music therapy. The psychology of music is critical to music therapy; the psychology of worship music could potentially be introduced to this field and benefit music therapy treatment plans in an innovative way for those open to religious treatment options.

Defining Music

According to the *Merriam-Webster Dictionary*, music is defined as the science or art of ordering tones or sounds in succession, in combination, and in temporal relationships to produce a composition having unity and continuity.¹ Music is further outlined in this dictionary as vocal, instrumental, or mechanical sounds having rhythm, melody, or harmony.² Both definitions can be considered accurate and will be used interchangeably. The style of music being studied is Western Music by definition and involves the use of a twelve-note system made up of intervals of half steps and whole

¹“Music.” *Merriam-Webster*. Accessed February 15, 2018. <https://www.merriam-webster.com/dictionary/music>.

² *Ibid.*

steps. Eastern music is not included in this study of music, as it uses multiple semitones and complex rhythmic and harmonic structures that are not common in Western Music and could potentially skew the information presented in relation to music and music therapy.

Elements of Music

In order to understand music, it is necessary to have a strong understanding of the various elements of music, such as pitch, tempo, rhythm, harmony, and melody. How high or low a note sounds is defined as pitch and is based on the frequency of the sound wave vibration. Notes are the names given to pitches to make them recognizable. The notes in Western Music are C, D, E, F, G, A, B. When you look at a piano, these are the white keys; they are called natural notes (denoted as ♮ when necessary but are otherwise understood). However, some key signatures require notes that are not natural. Half a step higher than a natural pitch is called a sharp (denoted as ♯), while half a step lower than a natural pitch is called a flat (denoted as ♭). An interval is the distance between pitches; for example, the space between C and D on a piano is classified as an interval of a second, or more specifically, a major second. The space between C and F on a piano is an interval of a fourth. Tempo is “considered one of the most important factors in terms of affecting emotional expression in music.”³ It determines how fast or slow a piece of music is played, typically expressed in terms of beats per minute (bpm) or designations such as *andante*, *presto*, and *allegro*. Rhythm describes the grouping of notes and the

³ Jonathan Berger and Gabe Turow, *Music, Science, and the Rhythmic Brain: Cultural and Clinical Implications* (New York: Routledge, 2013), 112.

length at which they are held.⁴ Rhythm gives a piece its overall feel and general sense of movement.

Important factors for understanding music are melody and harmony. Melody is the central, recurring theme of a musical work⁵ or the singular pitch line that stands out the most. The contour of the melody refers to the overall shape it takes, as the pitches move up and down in a unique pattern. Harmony can refer to “a parallel melody to the primary one (as when two singers harmonize) or it can refer to a chord progression—the clusters of notes that form a context and background on which the melody rests.”⁶

Timbre, also known as tone color, “distinguishes one instrument from another when both are playing the same note.”⁷ A soft, sweet flute and a loud, brassy trumpet have different timbres, making it easier for one to differentiate the instruments from one another.

Tonal music is written within the context of a key signature. A key in Western Music is a group of eight pitches (known in this case as a scale), with tonic note at the start and finish an octave apart, arranged in a series of half and whole steps.⁸ There are two main categories of tonalities: major and minor. Major tonalities (keys) follow a whole step, whole step, half, whole, whole, whole, half pattern and center around the tonic note, which the scale is named after. In the key of C major, the corresponding notes

⁴ Daniel J. Levitin, *This Is Your Brain on Music: The Science of a Human Obsession* (New York: Plume, 2007), 15.

⁵ Ibid., 17.

⁶ Ibid., 18.

⁷ Ibid., 16.

⁸ Ibid., 72.

would be C, D, E, F, G, A, B, C with C as the tonic note. This scale can be seen in notated form below in *Figure 1*.

Figure 1. C Major Scale



Minor keys, however, are broken into three different categories that all follow different patterns of whole and half steps. *Figure 2* notates these scales below.

Figure 2. C Natural Minor, Melodic Minor, and Harmonic Minor Scales

5 C Natural Minor Scale
W H W W H W W W W H W W H W

10 C Melodic Minor Scale
W H W W W W H W W H W W H W

15 C Harmonic Minor Scale
W H W W H H W H W W H W

As seen in *Figure 2*, the minor keys look very different from their C major counterpart.

Each one has its own pattern of whole and half step intervals and creates a unique tonality that may leave listeners downcast, which will be expanded upon in relation to the psychology of music.

Chapter One

Music Psychology

Music as a Whole Brain Experience

Music elicits a myriad of responses in listeners and every characteristic of music plays a role. Music has a strong effect on the human brain and emotions because “musical activity involves nearly every region of the brain...and nearly every neural subsystem.”⁹ This means that music cognitively occupies nearly every part of the human brain between the time it starts to the time the final chord rings. It engages the neural systems and requires the systems to work together to develop a clear understanding of the music.¹⁰

Authors Berger and Turov wrote that “current clinical research indicates that music and the components of music...can stimulate complex cognitive, affective, and sensorimotor processes in the brain, processes whose functions can be generalized and transferred to non-musical, therapeutic ends.”¹¹ The different aspects of music—from melodic phrasing, and harmonic structure, to rhythmic figures and overall timbres—can stimulate the brain in a variety of areas.¹² Music activates the intricate cognitive and sensorimotor functions of the brain in a way that allows the two to work as a stronger collective unit than before; “no other stimulus comparably engages all aspects of our

⁹ Levitin, *This Is Your Brain*, 85-86.

¹⁰ *Ibid.*, 86.

¹¹ Berger and Turov, *Rhythmic Brain*, 112.

¹² *Ibid.*

mental apparatus and compels them to speak with one another”¹³ as music does. Since music is processed throughout the whole brain, when one part of the brain is stimulated, it generates a chain reaction. Suddenly, a patient who could not speak properly can develop an emotional response to a song or piece of music that he or she has not heard in years, singing along to lyrics he or she has all but forgotten on the conscious level. Music can circumvent a person’s psychological and functional impairments and therefore allow effective therapeutic treatment on both the conscious and subconscious levels.

Psychological Effects of Musical Elements

The different elements of music play a large role in how music can affect those who listen to it and participate in creating it. Patrik Juslin and John Sloboda wrote about the influence of musical structure on emotional expression. They remarked that each musical factor can have a separate effect on the listener. For example, “fast tempo may be associated with various expressions of activity, excitement, happiness, joy, and pleasantness, or anger and fear. Slow tempo may be associated with various expressions of calmness, serenity, sadness, boredom, and disgust.”¹⁴ Juslin and Sloboda also suggested that a fast tempo could increase feelings of happiness or excitement when paired with a major melody. A piece slower in tempo which contains a minor melody could prompt feelings of sadness or solemnity,¹⁵ though this is not always the case.

¹³ Philip Ball, *The Music Instinct: How Music Works and Why We Can’t Do Without It* (Oxford: Oxford University Press, 2012), 241.

¹⁴ Patrik Juslin and John Sloboda, eds., *Music and Emotion: Theory and Research*. (Oxford, Oxford Univ. Press, 2001), 235-239.

¹⁵ Juslin and Sloboda, *Music and Emotion*, 235-239.

The melodic line of a piece of music carries a strong influence on the overall effect of the work. The range of the melody can indicate joy or whimsicality if it is wide enough, while a thin melodic range may convey peacefulness or sadness.¹⁶ The motion of the melody can also indicate and affect mood. Juslin and Sloboda claimed that stepwise motion can insinuate tediousness while intervallic leaps can allude to excitement.¹⁷ Another important aspect of melody is articulation. When notes within the melody are played *staccato* (or shortly detached from the other notes), they can communicate “energy, activity, fear, and anger.”¹⁸ When a melody is played *legato* (in a smooth, flowing manner), it can create moments of tenderness or even sadness within a piece.

Overall Psychological Effects

The different elements of music can have vast psychological effects on the listener. McGill University professor Daniel J. Levitan stated that “some sounds are intrinsically soothing while others are intrinsically frightening”¹⁹ and there is evidence of this throughout musical history. The author referred to Haydn’s *Symphony no. 94 in G major*, also known as the “Surprise Symphony,” which features violin melodies²⁰ that are underscored by *pizzicato*-style accompaniment (Italian for pinched or plucked). The plucked strings cause a slight sense of discomfort, but the softer, more melodic violin part

¹⁶ Juslin and Sloboda, *Music and Emotion*, 240.

¹⁷ *Ibid.*, 241.

¹⁸ *Ibid.*, 242.

¹⁹ Levitin, *This Is Your Brain*, 92.

²⁰ *Ibid.*, 92.

is so soothing that a listener's discomfort quickly fades away and becomes virtually unnoticeable.

On the other end of the spectrum, some sounds in music are inherently upsetting and fear-provoking for the listener. The interval of the augmented fourth, also known as the tritone, is a recognizable example. The augmented fourth is the distance between C and F# and is rarely heard in popular, mainstream music. In the early church, "this interval was considered so dissonant that it must have been the work of Lucifer, and so the church named it *Diabolus in musica*."²¹ Early church composers were banned from using the interval in their music because it was so frightening sounding that it could not be of the Lord. Another example of this is seen in the first movement of Gustav Mahler's *Tenth Symphony*. The chord played by the orchestra is constructed of nothing but minor thirds, which means the chord is not found in any tonal Western key signature, but can only be atonal, or without a key. Philip Ball wrote:

Intense musical experience is not always so blissful. Here is someone recalling a performance of Mahler's *Tenth Symphony*: [There was] a chord so heart-rendering and ghost-ridden that I had never experienced before...My brother and I reacted the same: we were both filled with such a primitive horror, almost prehistorical, that none of us could utter a single word. We both looked at the big black window and both of us seemed to see the face of Death staring at us from outside.²²

It is apparent that Mahler's use of dissonance in this chord caused intense discomfort to those who listened to his work. This is similar to Igor Stravinsky's famous work, *The Rite of Spring*. A portrayal of a virgin girl sacrificing herself to appease the gods of

²¹ Levitin, *This Is Your Brain*, 13.

²² Ball, *Music Instinct*, 255.

spring, Stravinsky's music challenged every preconceived notion of music. The work was harsh and used the highest register of the bassoon. The music was shrill, overly loud, and assaulting to the ears of the listener.²³ The work is most famous for its final movement, the "Sacrificial Dance." Stravinsky uses the octatonic scale²⁴ in conjunction with irregular meter and strong, off-beat pulsations that ultimately steered the audience to revolt when the work first premiered on stage in Paris on May 29th, 1913.²⁵

Major tonalities are "often ascribed labels indicative of positive emotional valence,"²⁶ while minor tonalities are often perceived as negative. This is due in part to the consonance and dissonance associated with each tonality. *A History of Western Music* described consonance as an "interval or chord that has a stable, harmonious sound."²⁷ The same book described dissonance in two ways, the first being "two or more notes sounding together to produce a discord, or a sound that needs to be resolved to a consonance."²⁸ The second definition referred to "a note that does not belong to the chord that sounds simultaneously with it; a non-chord tone."²⁹ These are important

²³ Ivan Hewett, "The Riot at the Rite: The Premiere of The Rite of Spring." The British Library, May 05, 2016, Accessed January 07, 2019.

²⁴ Pieter C. Van Den Toorn, "The Rite of Spring Briefly Revisited: Thoughts on Stravinsky's Stratifications, the Psychology of Meter, and African Polyrythm." *Music Theory Spectrum* 39, no. 2 (August 28, 2017).

²⁵ Hewett, "Riot at the Rite."

²⁶ Richard Parncutt, "The Emotional Connotations of Major versus Minor Tonality: One or More Origins?" *Musicae Scientiae* 18, no. 3 (August 20, 2014): 325.

²⁷ J. Peter Burkholder, Donald Jay Grout, and Claude V. Palisca, *A History of Western Music*, 9th ed., (New York: W. W. Norton & Company, 2014), A5.

²⁸ Burkholder, Grout, and Palisca, *Western Music*, A6.

²⁹ *Ibid.*

definitions, as consonance and dissonance have a severe effect on how music is perceived by the human brain.

As consonance is seen as being stable, it is less jarring to listeners. This explains why much music written in major tonalities may leave listeners with feelings of happiness and joy, as major tonalities contain less dissonance and more steadiness than their minor counterparts. Minor tonalities, however, are built on instability and tension in their musical intervals and disharmonic chordal structure. Extensive research done on Western Music and its psychological effects evidences that “harmonic chords may contribute to calmness and disharmonic ones to anxiety”³⁰ within all music listeners, not just those who understand Western Music on a theoretical level.

Physiological Changes

Listening to music and participating in music making can lead to physiological changes in the functional processes of the human body, as well as other systems throughout the body. Studies have shown that music can heighten protein levels in order to combat bacterial infections.³¹ Other reports concluded that “calming music changes cortisol levels and blood pressure”³² which is beneficial for those who have a hard time regulating their blood pressure each day.

³⁰ Töres Theorell, *Psychological Health Effects of Musical Experiences: Theories, Studies and Reflections in Music Health Science* (Dordrecht: Springer, 2014), 36.

³¹ Ball, *Music Instinct*, 245.

³² Diana Deutsch, *The Psychology of Music*, 3rd ed, (Amsterdam: Academic Press, 2013), 508.

Professor Töres Theorell of Stockholm University wrote that “music can act as both a stimulating and as a relaxing agent.”³³ He continued to explain that music used for therapeutic treatment is diagnosed differently for each person. The conclusion is drawn based on what is needed for that individual—such as increased heart rate, higher blood pressure, or the creation of endorphins. The same can be said for discerning music that is relaxing to a person, as the right music may allow for decreased blood pressure and heart rate.³⁴

³³Theorell, *Psychological Health Effects*, 35.

³⁴Ibid.

Chapter Two

The Methodology of Music Therapy

Defining Music Therapy

Music therapy is a field that is constantly undergoing change, and therefore can be hard to define. It is a blending of two disciplines—music and therapy, but also includes aspects of psychology, health, arts, sciences, and other subject areas. The overarching idea of music therapy is that it involves:

The use of music and its elements as an intervention in medical, education, and everyday environments with individuals, groups, families, or communities who seek to optimize their quality of life and improve their physical, social, communicative, emotional, intellectual, and spiritual health and wellbeing.³⁵

Music therapy as a discipline is “an organized body of knowledge consisting of theory, practice, and research, all pertaining to the therapeutic uses of music.”³⁶ In relation to music therapy as a profession, Kevin Bruscia used the definition, “an organized group of people using the same body of knowledge in their vocations as clinicians, educators, administrators, supervisors, etc.”³⁷

In medical settings, “music therapists assess clients and formulate interventions to address the particular conditions revealed by assessment and case materials.”³⁸ Music is

³⁵ "What Is Music Therapy?" World Federation of Music Therapy—Supporting Music Therapy Worldwide, 2011, accessed January 02, 2019.

³⁶ Kenneth E. Bruscia, *Defining Music Therapy*, 2nd ed., (Gilsum: Barcelona Publishers, 1998), 14.

³⁷ Ibid.

³⁸ Kenneth Aigen, *The Study of Music Therapy: Current Issues and Concepts* (New York: Routledge, 2014), 37.

used as a form of medication where a treatment plan is developed through the “use of musical interventions to accomplish individualized goals within a therapeutic relationship”³⁹ to help an individual heal physical and mental traumas. The psychological properties of music are utilized in order to achieve a desired medical outcome. In this approach to music therapy it is often “the neurological explanation that is employed, as music is viewed as a stimulus that is processed through specific systems and pathways within the brain.”⁴⁰

The psychoanalytical model of music therapy works in relation to the “psychoanalytic theory about the personality, human development, and the role of art in the human life.”⁴¹ This methodology employs music as method that induces change. Aigen wrote that this highly conceptualized form of music therapy views music as “a projective screen upon which unacceptable aspects of one’s inner self may be placed, or a representation of objects in the world with which the individual must come to terms in order to become healthier.”⁴² Music is the vehicle used to study the total personality structure of the patient in a therapeutic setting.

Aigen stated that music can be perceived as a verbal language.⁴³ It can be considered a form of communication because it involves written symbols in the form of

³⁹ "What Is Music Therapy?" American Music Therapy Association, 2012, Accessed January 03, 2019.

⁴⁰ Aigen, *Music Therapy*, 38.

⁴¹ Ibid.

⁴² Ibid.

⁴³ Ibid., 44.

notes on a staff. Music also includes both visual and audible components in the form of sheet music and live or recorded performance. Music in a therapy setting involves a message communicated from a sender (the patient) to a receiver (the therapist) or vice versa. Patients are able to use music to communicate with their therapists and express themselves in ways in which they may have previously been hindered from doing due to cognitive disabilities and preceding traumas.⁴⁴

Why Music Therapy is Effective

One of the reasons why music therapy is an effective form of treatment for many individuals is due to the fact that it combines multiple academic disciplines.⁴⁵ This means that music therapy targets numerous aspects of a person's health and overall wellness, in order to bring the most effective treatment to their whole body and mind. Clinicians in this field have found that "the therapeutic use of music is considered to improve the understanding of the physiological mechanisms of the organism and to improve alternative and complementary therapies."⁴⁶ In other words, music therapy complements other methods of therapy for patients because it does not involve medicine, yet helps to facilitate inner healing in a way that allows for secondary methods to work efficiently. Music therapy is also an effective form of therapy because it provokes

⁴⁴ Aigen, *Music Therapy*, 44.

⁴⁵ Noah Potvin and Jillian Argue. "Theoretical Considerations of Spirit and Spirituality in Music Therapy." *Music Therapy Perspectives* 32, no. 2 (2014): 122.

⁴⁶ Lisa A. Lowe, ed., *Music Therapy: Perspectives, Cultural Aspects, and Clinical Outcomes* (New York: Nova Science Publishers, 2017), 63.

responses from both the conscious and subconscious brain,⁴⁷ making it a worthy form of treatment for almost any patient, regardless of his or her cognitive condition.

Studies have also shown that the therapeutic use of music is successful because it travels through various processing centers. Music causes the whole brain to function as one unit, regardless of the circumstance. This is especially important in cases of trauma patients, “as the processing centers for important mental functions actually move to other regions after trauma or brain damage.”⁴⁸ It links these processing centers with one another and forces them to communicate once again after they have changed regions due to trauma and/or brain damage.

Music is known to have strong influence on a person’s mood. Research concluded that “music improves dopaminergic neurotransmission.”⁴⁹ Music allows the body to create and release dopamine which causes changes in mood. This transmission activates “primitive reward circuits, emotional responses that are linked to neurochemistry.”⁵⁰

Music Therapy Methods, Applications, and Effects

Music therapy is highly individualized, as one method may work for one patient yet show ineffective for another. Music therapist Dr. Clive Robbins advised his students that the systems they learned in his classes would need to be modified or ignored on a

⁴⁷ Berger and Turow, *Rhythmic Brain*, 112.

⁴⁸ Levitin, *This Is Your Brain*, 87.

⁴⁹ Lowe, *Music Therapy*, 63.

⁵⁰ Ibid.

case-by-case basis, otherwise the students would find music therapy to be an uncreative prescription.⁵¹ No two people are alike and no two traumatic experiences are alike.

Therefore, music therapy must be catered to an individual to best suit his or her needs.

Passive Listening and Active Participation

Music therapists and other health clinicians may choose to use music in the background as they are performing their services. North and Hargreaves presented information in *The Social and Applied Psychology of Music* that stated that “passive music listening is most frequently used to reduce pain, anxiety, or stress; to enhance the effects of anesthetic/analgesic drugs (or reduce their usage); or to reduce the length of hospitalization.”⁵² This method is usually most effective when the patient is able to listen to their preferred music and are made aware that the music will help calm them before a particularly anxiety-inducing or pain-inducing event, such as radiation administration for cancer patients or any form of surgery.

Active participation in group music making is also an important part of music therapy treatments. This form of music therapy aims to “promote positive interpersonal interactions which in turn reduce depression due to social isolation or long-term hospitalization and increase feelings of happiness.”⁵³ Patients can interact with not just their therapist, but other patients and even family members. This boost in morale pushes them to continue getting better and helps them grow in their physical and cognitive

⁵¹ Rachel Darnley-Smith and Helen M. Patey, *Music Therapy* (London: Sage Publications, 2003).

⁵² Adrian C. North and David John Hargreaves, *The Social and Applied Psychology of Music* (Oxford: Oxford University Press, 2008), 302-303.

⁵³ North and Hargreaves, *Psychology of Music*, 305.

functioning. They can also express creativity more freely and take their minds off of their illnesses.

When a patient is able to actively participate in music making, the effects of music therapy increase greatly. This functional form of the music therapy process allows a kinesthetic approach to the creation of music or sound by the patient in conjunction with his or her therapist. Clinical musical improvisation allows patients to communicate a part of themselves to those around them that indicates “an ability to overcome the basic problems that reflect mental illness.”⁵⁴ Music therapists have found that when their patients are allowed to create music in a setting that they feel comfortable in, the patients can “function far beyond the limitations imposed by their disabilities.”⁵⁵

Some music therapists go as far as to “create an alternative experiential realm where the disabilities of a client are not highlighted in order for that client to feel comfortable and no longer limited by his or her disabilities.”⁵⁶ In this newly created world, the patient is free to express himself or herself through the use of music. He or she is engrossed in “a unique musical world in which the experiences of the essential qualities of human life can be imparted”⁵⁷ in a way that the patient can relate to and understand fully. These patients can overcome fears that their conscious brain prohibits them from facing. They can “establish communication and relationships in music”⁵⁸ with

⁵⁴ Aigen, *Music Therapy*, 45.

⁵⁵ Ibid.

⁵⁶ Ibid., 46.

⁵⁷ Ibid.

⁵⁸ Ibid.

their therapists that they were not able to on a conscious level due to past trauma. They can communicate through musical expression and use motor skills that were all but extinct in their true cognizant state. Therapists, through music making, are able to create a space in which an exceptionally isolated patient can once again participate in the social aspects of a normal human life.

As mentioned previously, music therapy is interdisciplinary and can complement other forms of physical and cognitive treatment. One instance of this is called active music participation and it is used in tandem with physical therapy. Health experts use music to “focus the patient’s attention on exercise or to structure exercise, with the intention of reducing pain from joint movement, or increasing a patient’s ability to move.”⁵⁹ The administrator plays music that corresponds with the type of movement he or she expects the patient to be able to achieve. As the motor skills of the patient get better over time, the musical selections are refined to fit his or her new developmental needs in order to see continuous improvement.

Guided Imagery and Music Method

The Guided Imagery and Music Method (GIM) is mainly used in psychiatric therapy. A subtype of this method is called the Bonny Method, which is defined by the Association of Music and Imagery:

A music-centered exploration of consciousness. It offers persons the opportunity to integrate mental, emotional, physical, and spiritual aspects of well-being, as well as awaken to a greater transcendent identity. It is practiced primarily in psychotherapy and counselling settings. Specially sequenced classical music

⁵⁹North and Hargreaves, *Psychology of Music*, 303.

programs are used to stimulate and sustain a dynamic unfolding of inner experiences.⁶⁰

In the first session of this method, music therapists are able to speak with their patients and analyze disposition, vulnerability, and even liveliness.”⁶¹ This then allows them to determine which music will be well-suited for this patient’s therapeutic treatment plan. The therapist will play the musical selections and ask the patient to imagine pictures that they will discuss in the post-session. The therapist uses these images described by the patient to help the patient “process the thoughts and pictures together and try to relate them to the patient’s life situation.”⁶² This technique has been particularly effective in cases of post-traumatic stress disorder and additional psychiatric disorders.

Rhythm in Therapy

Scientists have known for years that “patterned sensory activity is important to human development because it influences the organization and development of cortical circuits.”⁶³ Until recently, however, this knowledge was only applied to early childhood development. Music therapists began to see correlations between this information and use of rhythmic therapy in recovery processes for adults with nerve injuries, as the therapeutic applications for this treatment “excited and reengaged and/or formed new connections to bypass damaged neural networks.”⁶⁴

⁶⁰Theorell, *Psychological Health Effects*, 50.

⁶¹Ibid.

⁶²Ibid.

⁶³Berger and Turow, *Rhythmic Brain*, 16.

⁶⁴Ibid., 113.

Berger and Turow explained that “rhythm...can be used to entrain movement when independent movement, initiation, or balance is a problem.”⁶⁵ Diseases that lead to nerve damage, such as Parkinson’s, damage “the internal initiation or sequential patterning of movement.”⁶⁶ Through a series of studies, scientists found that the damage these diseases cause could be bypassed with extensive rhythmic therapy treatments. The therapist spends time exploring different rhythmic patterns or musical varieties⁶⁷ that will allow their patients to walk more easily or balance themselves once again. Music therapists have found that using rhythm and tempo modulation to provide a patient with the ability to follow along with the movement provided by music and “enables improved functioning to be attained.”⁶⁸

⁶⁵ Berger and Turow, *Rhythmic Brain*, 114.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid.

Chapter Three

Worship Music

Defining Worship Music

Worship music may be defined as music that is written to be sung as an act of praise to the Almighty God (as in the God of the Christian religion). In order for a piece of music to fall into the category of praise and worship, it must include written lyrics that are rooted in the scripture that is found in the Holy Bible, as worship music is the only genre of music completely defined by lyrics.⁶⁹ The purpose of worship music is to point people to their Creator and allow the word of God dwell among the people.⁷⁰ Worship music includes not just music that is currently categorized as contemporary praise and worship, but also encompasses Psalms, hymns, masses, oratorios, contemporary Christian music (that which is commonly found on popular Christian radio stations), southern Gospel music, and all other forms of spiritual songs composed throughout history that meet the aforementioned guidelines.

Church and worship music play a large role in music history. In fact, “religious music is the basis for a substantial part of all the music that is performed in the world.”⁷¹ Many of the most famous composers to have ever lived wrote for the church—from

⁶⁹Nan Corbitt Allen, *The Words We Sing: Bringing Meaning to Worship* (Kansas City: Beacon Hill Press of Kansas City, 2010), 10.

⁷⁰Michael J. Lewis, "The Role of Hymns in Religious Healing Services." *Journal of Applied Arts & Health* 6, no. 3 (2015): 270.

⁷¹Theorell, *Psychological Health Effects*, 50.

Pergolesi's *Stabat Mater* to Handel's *Messiah*, and Haydn's *The Creation*, and Mendelssohn's *Hymn of Praise*. These composers had a lasting influence on the compositions of all who followed after them.

The Psychology of Worship Music

Worship music may have more of an effect on the human mind and emotions than any other genre of music because it is the only musical genre that has the goal of connecting humanity with the Divine. John Sloboda wrote, "at the heart of worship is the sense of being in the presence of that which is beyond capture by human concepts."⁷² Worship attempts to connect humans with the God who cannot be fully understood or known. It is an opportunity for mankind to come into the presence of the omniscient, omnipotent, omnipresent Creator of the universe and give Him praise and adoration, while crying out for mercy and help. Worship allows one to enter into the presence of God and experience change through knowing Him.⁷³

Worship music also "encourages the development of an attentiveness and readiness to be 'spoken to'"⁷⁴ by God. This factor has a large impact on those who participate in worship as well. When a person is willing to be a part of worship, he or she is more receptive to God, which can have significant importance when applied to the realm of music therapy. Worship music would be invaluable to music therapy treatment

⁷² John A. Sloboda, *Exploring the Musical Mind: Cognition, Emotion, Ability, Function* (Oxford: Oxford University Press, 2005), 351.

⁷³ Ibid.

⁷⁴ Ibid., 353.

plans, as it would allow patients to not only experience mental and physical healing, but spiritual healing.⁷⁵

Worship music does have a vast effect on those who participate in religious services. University of the Highlands and Islands professor Michael Lewis conducted a study in which men and women in the church (namely ordained ministers and qualified members of the congregation) were asked to rate how important hymns were to religious services and were given the ability to share their reasoning. After the study was complete, Lewis found that most of the ministry leaders agreed that worship music was good for opening the gateway to the mind and uplifting the spirits⁷⁶ of the congregation. He also discovered that leaders found worship music helpful for speaking aspects of God's healing and reminding people that they are children of a faithful God⁷⁷ who is capable of bringing healing regardless of their situation.

Worship Music in Music Therapy

University of Canterbury psychology professors Mandi Miller and Kenneth Strongman possessed a "strong belief that worshipping in a group setting will facilitate the presence of the Holy Spirit."⁷⁸ Even in the 1800s people acknowledged that worship music could reflect personal trials and that this may provide comfort for others who are

⁷⁵ Sloboda, *Musical Mind*, 351.

⁷⁶ Lewis, *Role of Hymns*, 273-274.

⁷⁷ *Ibid.*, 274.

⁷⁸ Mandi M. Miller and Kenneth T. Strongman, "The Emotional Effects of Music on Religious Experience: A Study of the Pentecostal-Charismatic Style of Music and Worship." *Psychology of Music* 30, no. 1 (2002): 8.

suffering.⁷⁹ Due to this information, it is possible that group worship experiences could be an effective way to facilitate worship in music therapy treatments. By bringing together a group of people who are willing to experience a worship service and need to experience the same style of music for effective treatment, it is possible that music therapists would see great benefits from use of this method.⁸⁰ In addition to possible physical and mental recovery, using worship in music therapy could open up the possibility of a patient discovering a relationship with God. As worship allows people to grow in their intimate knowledge and understanding of the object of their worship, which is God in this case, this growing knowledge may ultimately lead to spiritual healing.⁸¹

The Pentecostal-Charismatic Study

Miller and Strongman conducted a study in which they surveyed ninety-five members of a local Pentecostal Church who had all been attending regularly for at least six months. Before the service, each person rated eight self-report statements on a scale of one to seven, with one being a strong disagreement with the statement and seven being a strong agreement. The participants also rated their mood before the service began on a scale that ranged from (one) tremendously depressed, to (ten) very elated and in very high spirits.⁸² The researchers found that the average mood of the study's participants before the service began was a 7.15; however, after the musical portion of the service the

⁷⁹ Lewis, *Role of Hymns*, 271.

⁸⁰ Elizabeth Kennedy et al., "Christian Worship Leaders' Attitudes and Observations of People with Dementia." *Dementia* 13, no. 5 (2013): 594.

⁸¹ Sloboda, *Musical Mind*, 351.

⁸² Miller and Strongman, "Emotional Effects," 8.

mean jumped up to 8.05. The average only went up .10 after the sermon was preached and the service ended.

The participants of the study were able to express physical movement during the study, which is known to “generate high enthusiasm and increase the likelihood of disassociation during worship and song.”⁸³ As the average mood of the participants greatly increased after the musical portion of a religious service, it can be argued that music does play a role in lifting spirits. It can also be said that active participation and freedom of expression also allow for an increase in mood and functioning. Therefore, patients who are seeking music therapy treatment have experienced a past trauma could benefit from a group worship activity.⁸⁴

Dementia Patients and Worship

A group of psychologists organized a study in which they observed a set of twelve worship leaders interact with dementia patients. Each of the worship leaders had prior experience working with dementia patients and planning religious services that would benefit this group of people. The psychologists believed that a person with dementia could have his or her needs met by participating in a worship service.⁸⁵ The study assessed recurring themes from the worship leaders’ dealing with patients and proposed hypotheses regarding how musical religious services affected the participants.

⁸³ Miller and Strongman, “Emotional Effects,” 9.

⁸⁴ Elizabeth Kennedy et al., “Christian Worship Leaders’ Attitudes,” 595.

⁸⁵ Kennedy et al., “Christian Worship Leaders’ Attitudes,” 587.

One of the most important discoveries that came from this study was the importance of familiarity and structure. When the patients were faced with worship music and prayers that they knew well before the onset of their dementia, they were able to recall these familiar religious elements and participate. These hymns and prayers even engaged dementia patients who had not attended church regularly in their adult lives.⁸⁶ Psychologists believed that the familiar tunes created a secure environment where the patients felt free to express themselves and participate. A structured service “provided a familiar pattern which a person could identify with,”⁸⁷ even those in the advanced stages of dementia. The worship leaders observed that the patients were calmer in a worship service setting.”⁸⁸

The services that were presented during this study involved other participants, such as family members and therapists. Since the dementia patients were surrounded by others in this therapeutic context, it mimicked a true group worship service. The observations that were made by worship leaders further “evidenced improved functioning of persons with dementia within the environment of a worship service.”⁸⁹ Overall, the benefits of group worship in music therapy treatments can be witnessed through this report.

⁸⁶ Kennedy et al., “Christian Worship Leaders’ Attitudes,” 589.

⁸⁷ Ibid.

⁸⁸ Ibid.

⁸⁹ Ibid., 594.

Conclusion

As music is a large part of everyday life, there is ample evidence for its influence. From regulating blood pressure and calming anxiety, to increasing motor skills and repairing cognitive functioning, music has the ability to make a positive impact on the whole person. Music therapy has the potential to be an effective form of treatment for many physical impairments and mental illnesses because it targets most aspects of the mind and body and can allow healing in each area. However, worship music can be introduced to music therapy methods in order to bring not only physical and mental restoration, but ultimately spiritual healing as well.

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