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Pepperdine University

The Graduate School of Education and Psychology

UNMASKING THE NOISE WITHIN: AN EXPLORATION OF THE INTEGRATION OF MUSIC AND MENTAL PROCESSING AND ITS EFFECT ON ENHANCED LEARNING

A dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Education in Organizational Leadership

by

De Vida Gill

July 2019

Ebony Cain Ph.D. – Dissertation Chairperson

This dissertation, written by

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under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

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DEDICATION

To my parents—Russell and Lily—who laid my foundation and taught me the importance of GOD, family, education and following my passion.

To my brother—Vaughn—who's been my confidant, believed in me, and encouraged me to continue my education.

To my girls—Jasmine and Symone—for their unconditional love, support, faith, and encouragement to follow my dreams.

To my niece and nephews—Lauryn, Alex, and Jonathan—for their unwavering love and support.

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ABSTRACT

Many research studies have focused on aspects of music, mental processing, and education, but few have integrated music with mental health practices and theory in order to understand the potential effects of enhanced learning. This research applied a biopsychosocial (biological, psychological, and social) approach to provide a holistic view of the relationship between music and mental processing. In particular, this phenomenological study of non-musicians and professional musicians demonstrated the significance of music as a universal language. Additionally, the intrinsic and extrinsic effects of music are shown to enhance learning for the artist and listeners. The findings suggest that music can enhance our learning and support understandings of human behavior, oneself, and ultimately life. This study found that the composition of music initially captures a listener's attention—whether it is the vibration of the rhythm, melody, tempo, or harmony—whereas the lyrics ignite the listener's personal experiences and memories and provide a pathway to transform thoughts and mood and take the listener on an emotional journey.

Chapter 1: Introduction

Music is in a world within itself; it is a language we all understand.

—Stevie Wonder ("Sir Duke," 1976)

An old Japanese proverb said we have three faces. The first face, we show to the world. The second face, we show to our close friends and family. The third face, we never show anyone. It is the truest reflection of who we are. Whether a person is a musician or a listener, one's experience with music is complex, similar to human behavior, encompassing emotional, physical, intellectual, social, and historical elements (Shaw-Miller, 2011). This study operationalized the concept of enhanced learning and explored music as a lens to understand human behavior by analyzing the cognitive processing and emotional regulation that lead to emotional and physical changes.

Importance of the Study

The aforementioned Japanese proverb was utilized to demonstrate this study's relevance to the fields of arts and entertainment, mental health, and education. This study expanded upon previous studies regarding music's capacity to enhance the knowledge of emotions and expand on that notion, applying examples from music and mental processing as a pathway to enhanced learning and understanding.

Music. Music is important to enhance knowledge and understanding of human behavior by deconstructing the internal and external systems within ourselves and the environment in which we live. Whether through lyrics or composition, music sounds the way emotions feel, providing a pathway to how we understand, respond to, react to, or experience the world (Degmečić, Požgain, & Filaković, 2005; Pearsall, 1999; Roy & Dowd, 2010; Taylor & Paperte, 1958).

Within the initial face of the proverb, this study analyzed music's ability to express contentment or discontent through the images of its lyrics and composition. Through the second face, it demonstrated its power and fellowship to congregate and join in on one accord (i.e., "We Are the World" produced by Quincy Jones or "Beat It" by Michael Jackson). The third face provided an in-depth analysis regarding music's ability to express safely, internally, and externally, our deepest thoughts, feelings, and emotions that cannot otherwise be communicated through language. It is through the intricacies of music that it can reach areas where ordinary language cannot, both intentionally and unintentionally (Botstein, 2004).

Mental processing. Mental processing is nonlinear, incorporating the systemic interactions and complexities within and outside of social environments. Therefore, its importance within this study laid within multidimensional and omnidirectional aspects of biological, psychological, and social components of human behavior, providing an in-depth analysis and understanding of human behavior (Hutchison, 2013).

Across those same three faces of the Japanese proverb, this research applied the components of cognitive processing and emotional regulation of internal and external struggles and dynamics affecting the attitude, behavior, and functions of the mind (Hutchison, 2013; Vega & Rumbaut, 1991). Through those components that pertain to psychological well-being and resiliency, a different level of awareness emerges, providing enhanced learning and consciously and unconsciously enabling transformational healing of the mind, body, and metaphysical connection. This type of enhanced learning provides the pathway and developmental process to enhance a listener or musician's capacity to create, modify, or change the emotional or physical behavior they want to evoke through knowledge, understanding, and experience (Senge, 2006).

Learning. Learning provides insights into an individual's cognitive process and schemas, by incorporating internal and external stimuli, thereby delivering clarity to maladaptive and adaptive behavior patterns. Therefore, if behavior is extensively under external stimulus control, people can regulate the frequency with which they engage and react to their environment by altering or modifying the stimulus conditions to reduce or eliminate a behavior they otherwise wish not to express (Knowles, Holton, & Swanson, 2015).

Implications for research. An exploration into the integration of music and mental processing and its effect on enhanced learning can be used to unmask the biological, psychological, and social mental health factors that cannot otherwise be expressed through language, leading to transformational emotional and behavioral change. This study, called "Music & Lyrics by Design," explored and examined the missing biological, psychological, and social components to understand the relationship of cognitive processing and emotional regulation of mental processing when subjected to an environment of lyrics and composition of music.

Applying a biopsychosocial approach to this pursuit was beneficial in that it provided a comprehensive, holistic, in-depth analysis of the internal and external systems and components affecting transformational change. It also guided understanding of the integration of music and mental processing and their interrelatedness across generations and systems. This approach offered the opportunity to analyze the integration and interactions among biological, psychological, and social systems (Berzoff, Flanagan, & Hertz, 2016; Gliedt, Schneider, Evans, King, & Eubanks Jr, 2017; Hutchison, 2013; Kinderman, Schwannauer, Pontin, & Tai, 2013; Lehman, David, & Gruber, 2017).

The implication of this integration of music and mental processing will enhance current understanding of human behavior and transformational healing through a comprehensive, in-depth lens to elicit future research in the fields of arts and entertainment, mental health, and education. According to Shoben and Lazarus (as cited in See, 2007), by utilizing an eclectic approach, "theoretical strips" (selected portions of a theory) can be extracted from existing theoretical formulations to help analyze and explain the complexities of music-mental processing integration and the enhanced learning of the effects on human behavior through a biopsychosocial framework.

Each of these frameworks includes mental models and the interpretation of the musician's and learner's expression based on their life experiences and interpersonal awareness of their Johari Window. Therefore, components of intersectionality were explored to understand the effects on enhanced learning and the integration between music and mental processing. This method of intersectionality intertwining and interlocking systems of oppression and other social identities helped to understand the participants' backgrounds and their different experiences (Robbins, Chatterjee, & Canada, 2012; Robbins, Chatterjee, Canada, & Leibowitz, 2019).

Statement of the Problem

There was a scarcity of research regarding adopting a holistic view of the effect of the integration of music and mental processing on enhanced learning. This scarcity created a need for a comprehensive analysis of the effects of music and mental processing across systems and generations, and within the following fields:

- Music (composition and lyrics);
- Mental processing (cognitive processing and emotional regulation);
- Education (enhanced learning through transformational healing).

Without the aforementioned knowledge, there are gaps in understanding the nuances of enhanced learning where and its process that developed over time (Senge, 2006). The integration of music and mental processing cannot be examined through a singular lens using the developmental enhanced learning process or providing a holistic, in-depth, comprehensive analysis of the intricacies of this study.

Statement of the Purpose

The purpose of this qualitative, phenomenological study was to explore the use of music to enhance mental processing and explore its effect on enhanced learning from the lived experiences of non-musicians, amateur musicians, and professional musicians in Los Angeles County, California (Gold, Frank, Bogert, & Brattico, 2013; Kliuchko et al., 2015). This study explored music as a lens to understand human behavior through an analysis of research participants' cognitive processing and emotional regulation and consider to what extent music could be related to specific changes in emotions and physical reactions and its capacity to enhance learning. This study sought to expand upon previous studies of music and mental processing to enhance knowledge of behavior.

Music cannot be viewed as an isolated phenomenon (Botstein, 2004; Campbell, 1991; Riethmüller, 2008; Sloboda & Juslin, 2001; Taylor & Paperte, 1958) and the structural components within the integration of music and mental processing cannot be understood fully without applying a comprehensive, holistic, biopsychosocial approach with an eclectic paradigm utilizing theoretical strips (Taylor & Paperte, 1958). Applying multiple perspectives in a single study allowed the researcher to decode the complexities and interrelatedness of music, mental processing, and the effects of enhanced learning to identify the emotional, physical, and behavioral transformational changes that have not been conducted from a combined biological,

psychological and social lens otherwise known as a biopsychosocial approach (Bolman & Deal, 2013; Lerdahl, 2003; Taylor & Paperte, 1958;).

Also, Pratt (as cited in Taylor & Paperte, 1958) implied that emotional changes initially occur internally, integrating cognitive, emotional, and motor capacities, which supported extending this study beyond previous research thereby applying the biopsychosocial approach. Therefore, this study explored how the application of a biopsychosocial approach supports enhanced learning outcomes (transformational healing of the mind, body, and metaphysical connection) by integrating music (i.e., the internal and external structures from the lens of a musician and listener through composition and lyrics) with mental processing (i.e., understanding the integrated dynamics of emotional regulation and the cognitive process). The findings were obtained through documents, observations, interviews, and audio-visual material.

Approach to the Study

This study will review the findings from the lens of a musician, clinician, and educator.

Music component. Music seeks to explain and expose the different levels of emotions whether through composition or lyrics. It captures and expresses life's deeper meaning, and when people sing, it creates a bond, an emotional connection that may otherwise be hard to express (Bolman & Deal, 2013).

When an artist applies his/her musicality and lyrics to the social situations of the times, it can communicate profound thoughts and emotions. Relevant examples include:

- Logic the Rapper's (2017) song on suicide prevention, "1-800-273-8255";
- Stevie Wonder and Paul McCartney's (1982) song about racial equality, "Ebony and Ivory";

- Beyonce's (2017) album *Lemonade,* which addressed infidelity, Black pride, and parental issues;
- Curtis Mayfield's (1972) album *Superfly,* which addressed crime, drugs, the "hood," and so forth;
- Sam Cooke's (1964) song about social change, "A Change Is Gonna Come";
- Marvin Gaye's (1971) song addressing the Vietnam War and other societal and global issues of the time, "What's Goin' On"; and
- "Respect," a song about women's rights, originally written and released by Otis Redding in 1965 and a hit in 1967 by Aretha Franklin.

Mental processing component. Mental processing provides an awareness of the internal and external systems affecting emotional and behavioral changes. These changes are the result of the mental processing components of cognitive processing (how one thinks) and emotional regulation (how one manages their emotion), which are influenced by the dynamics affecting the attitude, behavior, and functions of the mind (Hutchison, 2013; Vega & Rumbaut, 1991). It is through a lack of understanding of mental processing and the maintenance of emotional and physical stability that internal and external conflict can result in struggles and disparities, leading to instability, turmoil, and even death.

Examples of internal conflict have included depression and social anxiety, which resulted in the loss of famous musicians by suicide after suffering from emotional problems, such as Kurt Cobain, Donny Hathaway, and Whitney Houston (Denhardt, Denhardt, Nahavandi, & Aristigueta, 2015; Ranker, 2019; Hutchison, 2013). Whereas, examples of external conflict have included social injustices and racial inequalities in which musicians have used their platform to bring social awareness and societal concerns to the community.

Integration. Through the integration of music and mental processing, this study provided theoretical interconnections among theories, technique, and models. It demonstrated how the integration of logic (mental processing) and creativity (music), using the right and left hemispheres of the brain, can affect an individual's (non-musician, amateur musician, professional musician), thought process through the essence of their lived experiences. The integration of music and mental processing can enhance learning by providing a deeper awareness and understanding of their cognitive and motor capacities to managing self and social conflict thereby creating an emotional and physical behavioral transformational change. This transformational change was measured through observations, documents, audio-visual materials, and interviews.

Finally, this study analyzed the enhanced learning (i.e., learning and intellectual ability, and emotional and physical, behavioral change) outcomes of the integration of music and mental processing through analyzing the cognitive, emotional, and motor capacities of non-musicians and professional musicians. These outcomes were measured through interviews, documents, and audio-visual materials.

Research Questions

This explorative study provided a comprehensive analysis and addressed the following questions:

- What effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection?
- How does music tap into our thoughts and emotions, thereby affecting our behavior?
- How does music soothe troubled minds and enhance learning and performance?

Significance of the Study

Although several professions can benefit from this study, this dissertation contributed to three fields in particular: arts and entertainment, mental health (social work, psychology, and other clinicians), and education. Through music, mental processing, and enhanced learning, individually and collectively, this study addressed the biopsychosocial gap in previous research. It provided an enriched knowledge and understanding of the transformative emotional and physical, behavioral changes the integration of music and mental processing can have on functions of daily life.

At this stage in the research, the exploration of the use of music to enhance mental processing and the exploration of its effect on enhanced learning was generally defined as understanding the power of music as a universal language of communication and transformation across systems through the lived experiences of non-musicians, amateur musicians, and professional musicians. The results were reported through participants' interviews, self-reported evaluations, documents, and observations (Creswell, 2014). Through those interviews and observations, cultural symbols were explored to examine potential influences of perception, decoding how participants may think about, see, and feel about the world through music, which ultimately guides their emotional and physical behavior (Hutchison, 2013).

Field of arts and entertainment. Non-musicians, amateur musicians, and professional musicians who use music as a funnel of self-identity, exploration, or escape will be able to conceptualize music's influence on their cognitive process, emotional regulation, emotional and physical behavior. This self-awareness will make possible a cognitive shift in the type of music they write, compose, or listen to based on the enhanced learning they want to achieve. It will also provide insight into a non-musician, amateur musician, and professional musicians mental

models, Johari Window, and awareness of others through self-reflection, thereby consciously making different daily decisions or choosing alternative genres and songs from which to create or listen based on the desired mood. Sloboda and O'Neill and Saarikallio and Erkkila (as cited in Gold, Frank et al., 2013) reported people predominantly listen to music for emotion and mood regulation, signifying a possible operative role of musical pleasure.

Field of mental health. Social workers, psychologists, and other clinicians who are clinically trained often utilize evidence-based practices and theoretical frameworks as the foundation for their method of treatment. However, understanding the significance of music as an adjunct to mental health services and applying music within a biopsychosocial assessment will enhance a clinician's exploration of their clients and help identify creative interventions and coping skills to help meet the desired treatment goals. Utilizing music as an adjunct to services, clinicians will seek a more enriched understanding of their clients that may not otherwise be clinically taught in school.

Field of education. Educators and students will also benefit from using this study as a guide to enhance learning within the science, technology, engineering, and math (STEM), education, and mental health fields. This study can be used to creatively developing a structure in which to integrate the analytical components of deductive and inductive reasoning and problem-solving with the expressive workings of innovation, critical thinking, flexibility, adaptability, social, and cross-cultural skills.

This dissertation provides educational awareness and a rationale to increase funding for the arts among multiple systems, as it demonstrates the significant influence art (i.e., music) can have on human behavior, academic achievement, job performance, and transformational healing across generations. By understanding the internal and external structures of the mind through

self-awareness and the awareness of others through this comprehensive study, the integration of music and mental processing enhances our learning of how music is an integral part of our daily lives.

Over the years other fields, such as engineering and mathematics have displaced the importance of the arts in fundamental K–12 learning (EducationCloset, 2016). In 2017, Congressman Jim Langevin introduced the STEAM Education Act of 2015 to the House of Representatives which would incorporate arts in K–12 schools and beyond via STEAM (adding arts to STEM) and amend the STEM Education Act of 2015, but this effort was stopped in the Senate Finance Committee due to lack of additional funding (P. Fergusson, personal communication, May 17, 2018). The STEAM Education Act was an opportunity to provide enhanced learning by the whole person in STEM fields demonstrating the effects music and other art forms have when integrating both hemispheres of the brain promoting creativity, innovation, and new ways of problem-solving (EducationCloset, 2016; Langevin, 2011; "Langevin Introduces Resolution," 2015).

By addressing the scarcity gap of research and understanding the nuances of enhanced learning through a comprehensive analysis of the effect of the integration of music and mental processing, this study provides a more holistic view of the power of music and can be utilized to increase music awareness, appreciation, resources, and funding.

Definition of Terms

The following definitions are provided to ensure uniformity and understanding of the terms used to explore music, mental processing, and enhanced learning throughout this particular study.

Artists. Artists were individuals within the fields of performing and visual arts. However, for the purposes of this study, the emphasis was placed on musicians, singers, and songwriters. Artists were divided into the following sub-categories (Gold, Frank et al., 2013; Kliuchko et al., 2015): non-musicians (i.e., no music experience, individuals who played any music outside regular school, had some practice that was not recent, or musical experience less than five years), amateur musicians (i.e., musically trained individuals or people who were self-taught, who did not graduate from a music school, had one–five years weekly practice, and had no more than five years of experience that had not been recent), and professional musicians (i.e., musically trained for more than five years, practiced an instrument or sang regularly, and earned income from music teaching and/or performance).

Enhanced learning. The desired results of transformational healing demonstrated via the mind, body, and metaphysical connection (i.e., learning and intellectual ability, and emotional and physical behavior changes) provided a more in-depth awareness of music's vibration and the interpretation of lyrics through auditory, visual, and kinesthetic learning. This study provides a pathway to enhanced learning over time as a result of understanding the integration of music and mental processing (Senge, 2006).

Mental processing. The psychological well-being and resilience (i.e., cognitive processing and emotional regulation) of the internal and external struggles and dynamics affecting the attitude, behavior, and functions of the mind (Hutchison, 2013; Vega & Rumbaut, 1991).

Music. The creative and developmental factors and the process of improvisation, composition, lyrics, and arrangement (Sovansky, Wieth, Francis, & Mcllhagga, 2016).

Limitations of the Study

1. Due to the unique description of artists and the failure of participants to self-report their identified sub-category and age with candor based on their perception or interpretation, results might not accurately reflect the opinions of all members of the included population.
2. Due to the assumptions, interpretations, and perceptions within the participants' mental models and Johari Windows regarding the purpose or intended results of the study, responses may not have been answered candidly to reflect the opinions of all members of the included population.
3. Due to the participants' cognitive processes and interpretation of their lived experiences from the study, results may not be generalizable beyond the specific population from which the sample is drawn.
4. Due to the location of the venue, responses might only be indicative of the homogenous population of the participants.
5. Due to the study incorporating selectively chosen musical arrangements, genres, and songs, participants' musical interests were not previously identified; therefore responses may not be generalized beyond the specific participants' musical interest.
6. Due to the research being conducted as cross-sectional versus longitudinal study, responses cannot be generalized over a period of time.
7. Due to the study being conducted outside a traditional therapy session, responses cannot be generalized based on the phenomenological experience of a therapist.
8. Due to the study not including minors as participants, responses could not be obtained to analyze the generation gap of youth, young adults, and adults.

Delimitations

The sample size was divided into non-musicians, amateur musicians, and professional musicians ages 18 and over who participated in this live event. Data were collected in Los Angeles County through face-to-face interviews, observations of listeners and musicians who showcased their talent, self-reported evaluations by participants who listened to live and recorded music, and the interpretation of documents (i.e., lyrics).

Summary

Chapter 1 provided an overview of the study and factors deemed significant in the exploration and integration of music and mental processing and music's effect on enhanced learning. The following sections were included: introduction, problem statement, purpose statement, research questions, the significance of the study, the definition of terms, limitations of the study, and delimitations.

Chapter 2 provides an overview of the historical underpinnings of music, its integration with mental processing, as well as its effect on the mind, body, and metaphysical connection. It contains related literature and research based on which this study addressed the problem of previous research not providing a holistic view from a biopsychosocial approach to music. This section contains theoretical frameworks, the relationship between concepts using a biopsychosocial approach, and the theoretical interconnection among theories, technique, and models.

Chapter 3 discusses the qualitative methodology and procedures that were used in this phenomenological study. The chapter includes the data gathering instruments, a description of the data analysis process, and plans for IRB approval.

Chapters 1–3 were presented to the doctoral committee on February 13, 2019, and, following IRB approval, the study was conducted, finalizing the last two chapters by April 5, 2019.

Chapter 2: Literature Review

More than art, more than literature, music is universally accessible.

—Billy Joel (Berklee College of Music Commencement, 1993)

The purpose of this study was to explore music as a lens to understand human behavior by analyzing cognitive processing and emotional regulation. The application of a phenomenological approach allowed the research to consider to what extent music could be related to specific changes in emotions and physical reactions and its capacity to enhance learning. This study explored the integration of music and mental processing using an eclectic approach blending the fields of arts and entertainment, mental health, and education.

The following discussion explores literature that provided insight, clarity, and analysis as it relates to the phenomenon under investigation. This phenomenon was the integration of music and mental processing that unmasked the biological, psychological, and social components that cannot otherwise be expressed through language. This integration led to the emotional and behavioral transformational changes of the mind, body, and metaphysical connection. According to Zittel, Lawrence, and Wodarski (2002), genetics and biological makeup, psychological functioning, cognitive processing, decision-making, lifestyle experiences, socioeconomic status, culture, support network, family dynamics, and a person's overall environment all provide insight into how one's functioning and behavior can be changed. Therefore, it was essential to explore the concepts of biological, psychological, and social in the literature to obtain clarity and understanding regarding the internal and external underpinnings of human behavior. For this reason, specific sources were selected because the contributing information regarding the biological, psychological, and social elements of human behavior support the integration of music and mental processing and its effect on enhanced learning. Specifically, sources provided

information related to lyrics and composition, cognitive processing, emotional regulation, human behavior, and transformational healing of the mind, body, and metaphysical connection.

Chapter Overview

This chapter gives a holistic review of the use of music applying the biological, psychological, and social components of human behavior through the lens of a musician and listener integrating the artist, his/her environment, and his/her personal experiences. It reviews previous literature enabling an explorative journey, beginning by evaluating the power of music. Historical transformation of the mind, body, and metaphysical connection was explored along with the power of music viewed through a biopsychosocial lens. Next, the power of music through engagement was explored, reviewing music, lyrics, and communication as well as music and enhanced learning. Last, the study's theoretical frameworks are reviewed: the Johari Window Model, Conflict Transformation Theory, the Iso principle, and the Cognitive Behavioral Model.

Chapter Organization

This literature review shows that the application of a biopsychosocial approach through the collaboration of a musician, a clinician, and an educator improves the use of music to enhance mental processing and explore its effect on enhanced learning. Although selected studies have addressed components of the integration, this researcher has not identified any study that integrated a pragmatic and constructive view providing a comprehensive analysis and applying an eclectic approach to the effects of the power of music across individuals, systems, and generations within the identified fields.

This explorative study addressed the following questions:

- What effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection?
- How does music tap into our thoughts and emotions thereby affecting our behavior?
- How does music soothe troubled minds and enhance learning and performance?

The Power of Music

This study was built on the premise that music is a powerful form of expression that can cause emotional and behavioral transformational change. A historical review of the use of music to enhance mental processing and explore its effect on enhanced learning provided evidence that music is undeniably an influential form of expression. The connections between music and emotions that emerge are better recognized than the feelings elicited by the performing and visual arts (Blau, 1988). Applying this historical review was important to gain insight and understanding into the ideation that whether it's an instrumental or composition with lyrics, sound, tone, or vibration, music will innately evoke positive or negative emotion and thought.

Through the composition of music and creation of lyrics, transformation takes place for both the musician and non-musician. However, there was very little prior research exploring an artist's insightful thoughts, emotions, and behavior. There is a scarcity of research that informs clinicians who work with artists that applies music as an adjunct to the biopsychosocial framework which would enable a more in-depth analysis and understanding of the whole person. In addition, minimal guidance is provided for educators to guide the discussion of sensitive topics and experiences influencing mental models or addressing the four quadrants of the Johari Window through music. Hames and Inglis (1999) indicated that lyrics of popular music reference states or conditions that are associated with three forms of mental illness in a variety of forms:

(a) through song title themes, (b) within the lyrics themselves disclosing experiences of mental illness, and (c) within lyrics containing casual or implicit references to mental distress facing the artist (i.e., the absence of a relationship or infidelity).

Through Hames and Inglis's (1999) theory, there is a framework for music to inform and transform artists, thereby effecting change in society because it causes a change in people. The power of music reaches the core of the human spirit across generations, cultures, and societal norms (Botstein, 2004; Campbell, 1991; Lerdahl, 2003; Madison, 2011; Shaw-Miller, 2011). Therefore, music captures and expresses life's deeper meaning; when people sing, it creates a bond, an emotional connection that may otherwise be hard to express (Bolman & Deal, 2013; Krumhansl & Lerdahl, 2011).

The essence of the phenomenon of music has crossed the life course of historical, social, and individual meaningful events. In the listener's thoughts and emotions, there is a continuous movement taking us back in time to understand the past, moving through the present, and anticipating something for the future (Degmečić et al., 2005; Opiyo, 2015; Roy & Dowd, 2010). This resembles a similar journey taken by an artist who writes, composes, and/or performs musical selections. Music plays a vital role in storing past knowledge, remembering past people and events (Opiyo, 2015). As stated by Sicangu, "Our songs are our history. If we do not have our songs, we do not know where we are or where we have been. We don't know how to remember what has happened to us" (as cited in Lundquist & Sims, 1996, p. 312). The power of music is an emotional journey led by the composition of sound, which ignites the formulation of lyrics.

Pearsall (1999) stated that the assortment of melodic patterns, chords, and rhythms an individual hears are affected and influenced by his/her innate biological factors, psychological

processing, socio-cultural experiences, and formal training. Boretz (as cited in Pearsall, 1999) referenced musical elements such as melodies, rhythms, contours, harmonies, and gestures as ideas that are not only formed in response to the acoustical signals but are also products of the mind. Therefore, by exploring the biopsychosocial framework, emotional and physical changes can be examined. Through music and lyrics, a more in-depth understanding of thoughts, emotions, and feelings can emerge. In other words, music provides the emotional, intellectual, physical, and historical lens that captures the essence of the human lifespan (Shaw-Miller, 2011; Yehuda, 2011). To put it differently, music provides the context in which people understand the past, embrace the present, and look toward the future.

Historical Transformation

Previous research has been conducted on music and biology, music and neurobiology, music and psychology, music and sociology, music and education, and music and the artist; however, the researcher could not identify any singular study that integrated music with all the aforementioned components. For this reason, it can be concluded that the integration of music with mental processing is not a new phenomenon. A historical review of the use of music to enhance mental processing and it effect on enhanced learning demonstrates the significant effect music has on transformational healing of not only human behavior but also society for centuries (Degmečić et al., 2005, Gardner, 1944; Madison, 2011; Strick, de Bruin, de Ruiter, & Jonkers, 2015; Yehuda, 2011).

Through the therapeutic power of music, this study explored how knowledge can be enriched when music is integrated with mental processing thereby providing insight and understanding of its effects on human behavior. Existing research provided the framework of music's ability to further learning and its effect on an individual's biological, psychological, and

social environment (Blau, 1988; Bolman & Deal, 2013; Krumhansl & Lerdahl, 2011; Riethmüller, 2008; Shaw-Miller, 2011; Taylor & Paperte, 1958). Within the realm of a biopsychosocial framework—integrated with components of theoretical, concepts, models, and techniques—this study explored music's ability to enhance learning. According to Brooks, "The idea of music as a healing influence is as old as the writings of Aristotle and Plato" (as cited in Degmečić et al., 2005, p. 290). Rowell (as cited in Yehuda, 2011) asserted that the Greeks attributed three therapeutic functions to music; in their myths, the Greeks expressed that music had the following significant effects on the body, mind, and soul: (a) music restores the soul and body to a state of equilibrium through arousal or soothing sounds regulating the increase or decrease of emotions, (b) music creates the sensation of pleasure through movement/activity, and (c) music induces a cleansing that purges the soul of emotional conflict and turmoil. It can be illustrated that music has been used in transformational healing dating back to about 2500 BCE (Gardner, 1944). Therefore, it can be concluded that for centuries, music has played a vital role helping people understand the past and promote mental wellness.

Biological transformation. An investigation of music's historical framework within a biological context provides an initial understanding of emotional and physical transformations. Gardner (1944) reported that the first written observation on the effect of music on an individual was from the Egyptian medical papyri, discovered in 1880, which dated back approximately to 2500 BCE. The papyrus in question discussed the positive influence of music on the fertility of women. Furthermore, Homer wrote about music stopping a hemorrhage in Ulysses. Russian physicians, such as Dr. Berkhnisky, asserted that Chopin's waltzes could cure sleeplessness and said the compositions could relieve pain as well (Gardner, 1944).

Psychological transformation. An investigation of music's historical framework within a psychological context is next in providing an understanding of emotional and physical transformations. For example, an old Chinese proverb stated:

> Music comes from the heart of the human being. Cohen stated that music contributed significantly to the human experience (as cited in Strick et al., 2015). When emotions are born, they are expressed by sounds, and when sounds are born, they give birth to music. (author unknown).

Madison (2011) stated that there have been various ideas about the integration between music and emotions, but there has been no singular consensus about this relationship in the last 2500 years. Strick et al. (2015) stated that music has a significant influence on an individual's mood, physiological reactions, and behavior. Given these assertions, previous research subsequently substantiates the importance of integration and healing properties of music and the psychological transformation of cognitive processing and emotional regulation as evidenced by emotional and physical changes achieved through the support of musicians:

> The 20th-century discipline of music began after World War I and World War II, when community musicians of all types, both amateur and professional, traveled around to hospitals in different countries to play for the thousands of veterans suffering both physical and emotional trauma from the wars. The patients' noticeable physical and emotional responses to music led the doctors and nurses to request the hospital to continue hiring musicians. (Degmečić et al., 2005, p. 290)

Social transformation. An investigation of music's historical framework within a social context provides the last understanding (under the biopsychosocial framework) of emotional and physical transformations, which is prevalent throughout the lifespan and can be embodied in

every element of the human lifestyle. As indicated previously, from ancient history to the 21st century, one can find a multitude of research regarding the therapeutic, transformational healing powers of music and its effects on emotional and behavioral changes. Previous research has identified music as a process, activity, social, and/or historical event (Roy & Dowd, 2010; Shaw-Miller, 2011; Strick et al., 2015).

An example of activities, social, and historical events would include occasions and celebrations involving family, friends, and religious circumstances; political peace gathering; and the use of music within a multimodality framework for educational, institutional, societal, and organizational training and events. Historical examples include Napoleon attributing his defeat by the Russians to the Red Army's music, which empowered the Muscovites to triumph over the greatest regiments of the French army (Gardner, 1944). In Nazi Germany, music was featured prominently at rallies and other public events of the party, similarly to Soviet Russia and Communist China, where musical compositions were used to influence the crowds (Strick et al., 2015). Today, music videos on the internet, television, advertising, and social media influence children and young adult's styles and trends, whereas Hollywood movies and Broadway productions utilize music to accent storylines and capture the audience's attention (Strick et al., 2015).

The Power of Music Through a Biopsychosocial Lens

Whereas exploring past research may guide current understanding of the power and transformational healing properties of music, it was also important to take a holistic view of its internal and external effects on human behavior from a biopsychosocial perspective. A biopsychosocial approach stems from interactions among integrated biological, psychological, and social systems (Berzoff et al., 2016; Gliedt et al., 2017; Hutchison, 2013; Kinderman et al.,

2013; Lehman et al., 2017). Holistically, this investigation necessitated an exploration of the biological, psychological, and social factors influencing and affecting musicians and listeners' daily functioning and lifestyle, applying theoretical theories, techniques, and models as a best practice framework, and an analytical collaboration from a musician, educator, and clinician's view. This study provided new avenues, beyond the outside-in approach of the Iso Principle and Conflict Transformation Theory, to guide artists and listeners through the internal process of uncovering roadblocks and conflicts that stunt their exploration and creativity. The inside-out approach of the Cognitive Behavioral Model and Johari Window served to reveal emotional and social awareness and generate the emotional and behavioral transformational change the artist sought.

Transformational behavioral change is best accomplished through the application of internal and external processes which allow the artist and listener to understand the greater situation, extrapolate significant interpretations, and recognize the connections between their thoughts and emotions. Once these are internally accepted, an observable behavioral transformation can result in the composition of music, the creation of lyrics, or the expansion of creativity and expression, or the relaxation of the mind. This behavioral transformation takes action as a response to the emotion(s) felt.

Music can be appreciated in isolation regardless if you are in a crowded space and many times it fails to recognize the journey of the artist behind the creativity. Through the lens of the artistically talented, one can find new meaning and understanding beyond individualized perceptions of their lyrics and compositions. This study addressed a new understanding of music by applying the Johari Window and the Cognitive Behavioral Model to musicians and non-musicians. (Bore, 1929; Degmečić et al., 2005; Luft, 1970; Robbins et al., 2012). Conducting a

historical exploration regarding the eccentricities of creative geniuses demonstrated the integration of music and mental processing, offered a different lens of learning, and expanded beyond traditional methods to achieve a more personal, in-depth account of the musicians' biopsychosocial development. Beethoven lost his hearing; Chopin's tenuous health affected his playing; Schumann had suffered a self-inflicted hand injury and attempted suicide, and committed himself to a mental institution (Pierce, 2010). Understanding the phenomenology behind the behavior of those who struggled with injuries and other physical and mental health issues in private demonstrated the effect music had as they continued to compose and create, allowing their musicianship to be their platform of healing (Pierce, 2010).

This study incorporated a biopsychosocial perspective from the lens of a musician and listener, enabling the exploration and enhancement of learning. The process supported a more comprehensive understanding of the multidimensional person and the effects music has on human behavior and its environment. Lederach (as cited in Opiyo, 2015) stated that musical frameworks provide opportunities to better understand and address the content, context, and structure of relationships in a conflict. These frameworks may encompass a historical, individual, or social situation. Music cannot be viewed as an isolated phenomenon, but is closer to involving all human processes simultaneously than practically any other experience (Madison 2011; Roy & Dowd, 2010; Taylor & Paperte, 1958). As a result, it is no wonder music has so many uses, from healing to celebrations to background noise while engaging in an activity. Degmečić et al. (2005) stated that music can touch a severely mentally ill patient or a highly educated professor of philosophy in the same way, showing the power of music and the dichotomy of intersectionality (i.e., mental health, cultural context, gender, age). Yob (2010) asserted that the mind, body, and soul do not operate in isolation from each other. As with the

biopsychosocial framework, the mind, body, and soul are interconnected and therefore cannot work in isolation. According to Zittel et al. (2002), mind-body research continues to evolve and entails the integration of polarized frameworks into an isolated theoretical model. However, as more studies begin to use the biopsychosocial model with music, new biological, psychological, and social connections, networks, roles, responses, and associations can be identified.

Therefore, with the integration of the power of music and the biological/neurobiological, psychological/cognitive, and social components of human behavior, applying a qualitative phenomenological study with an eclectic theoretical approach, the following question was addressed: how does music soothe troubled minds and enhance learning and performance?

The power of music is identified by relating this construct to three relational concepts. The first is the power of music through the lens of the mind and body (i.e., biological and neurobiological). This construct addressed research question 1 (What effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection?) and research question 2 (How does music tap into our thoughts and emotions thereby affecting our behavior?). The power of music addressed the physical health of the artist, the appearance of lyrics and composition, and its effects cross-culturally and generationally.

The second construct was the power of music through the mind: the emotional and cognitive lens (i.e., psychological). It addressed research questions 1, 2, and 3 (how does music soothe troubled minds and enhance learning and performance?). This construct addressed thoughts and feelings affecting an artist's attitude and behavior, the emotions of lyrics and composition and their effect on daily life, and the mood changes influenced by emotional regulation and functions of the mind.

Last, the power of music through a social-spiritual lens (i.e., social) is included, which addressed all three research questions. This construct addressed factors affecting an artist's lifestyle, environment, social networks, and maladaptive lifestyle behavior changes. This researcher created an overview of this integration as shown in Table 1.

Table 1

The Relationship Between Concepts: Music, Mental Processing, and Enhanced Learning Using a Biopsychosocial Approach

Artist (Focal System)	**Music (Lyrics & Composition) "Antecedent"**	**Mental Processing (Cognitive processing/emotional regulation) "Behavior"**	**Enhanced Learning (Transformational healing) "Consequences"**
Biological <Internal> (Subsystem)	* Tonality, Rhythm, Sound, & words of the lyrics/composition * Cross-cultural/genera-tional * Maternal/infancy factors	* Physical/medical ailments & disease * Generational * Maternal/infancy factors * Maternal/infancy factors * Abilities/disabilities	* External healing of physical symptoms (i.e., fatigue, insomnia, energy; ailments) * Cross-cultural/generational * The influence/effects of neurobiological & developmental factors
Psychological <Internal> (Subsystem)	* Emotions of lyrics/composition and the effects of daily life * Thoughts, feelings, cognitive characteristics affecting the attitude, behavior, and functions of the mind * Thinking style (negative; self-critical; pessimistic; optimistic) * Mood Changes	* Self-esteem/self-concept * Depression; stress; guilt; identity; anxiety; happiness; joy; (mood changes) * Thoughts, feelings, cognitive characteristics affecting the attitude, behavior, and functions of the mind * Thinking style (negative; self-critical; pessimistic; optimistic)	* Power of internal healing * Interpretation of emotions/language * Coping skills * Social skills * Influence how a person thinks and later affects decisions and relations in daily life (power) * Learning and intellectual ability

(continued)

Artist (Focal System)	Music (Lyrics & Composition) "Antecedent"	Mental Processing (Cognitive processing/emotional regulation) "Behavior"	Enhanced Learning (Transformational healing) "Consequences"
Social <External> (Suprasystem)	* Religious practices * Family culture/dynamics/circumstances * Vocation/work * Social interactions * Isolation * Hobbies * Environment	* Religious practices * Family culture/dynamics/circumstances * Vocation/work * Social interactions * Relationships/friends * Isolation * Hobbies * Environment	* Religious Practices * Family culture/dynamics/circumstances * Factors affecting/influencing personality, attitude, and lifestyle * Social Networks * Behavior changes—stop doing activities/avoiding friends/celebrations * Social injustice/societal issues

Note: Music is the universal language—cross-cultural, generational, across systems.

Biological/neurobiological lens. The power of music viewed through the lens of the mind and body addressed the first research question on what effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection. Biological systems capture the physical elements of the body and can take many forms, including genetic vulnerabilities, family history of hereditary conditions and diseases, medical history, illnesses, and physical developmental milestones (Kinderman et al., 2013; Lehman et al., 2017). This lens included neurobiological maternal and infancy factors (i.e., risk factors affecting the mother or baby) and physical health (i.e., medical ailments and symptoms). This study defined music's biological factors as the natural and organic physical appearance and composition of lyrics and composition similarly to a human's biological system that incorporates genetic vulnerabilities and developmental milestones.

The neurobiological aspects of the power of music incorporate the brain structures of the right and left hemisphere that tap into emotional responses. Degmečić et al. (2005) stated that music has a direct effect on the autonomic nervous system, enabling different kinds of autonomous bodily reactions to occur. The autonomic nervous system oversees communication within and between organs (i.e., managing heart rate, respiration, and digestion) and controls involuntary responses.

Research has indicated that music helps treat a variety of ailments. Thaut indicated that "musical stimuli, specifically rhythm and tempo, can be used as a synchronizer to influence changes in physiological responses (i.e., heartbeat, respiration, blood pressure) through entrainment" (as cited in Yehuda, 2011, p. 89). Gardner (1944) researched Russian doctor Dogiel, who discussed the physiological effects of music reported:

> Music influences the circulation of the blood so that the pressure of the blood can rise and fall. He stated the frequency of the heartbeat is usually increased when music tones are produced and noticed there were variations of the circulation that coincided with the changes in breathing while music is being played. Furthermore, variations of the blood pressure depended on the pitch, loudness and tone of the music therefore when the blood pressure varies, the idiosyncrasies of the individual are accentuated. (p. 183)

Dr. Dogiel's reference can be applied to an individual's preferred music genre. As an example, heavy metal may increase blood circulation based on the pitch, loudness, and tone of the music whereas smooth jazz or classical music would decrease blood circulation. Dr. Herbert Dixon (as cited in Gardner, 1944) found that quick, sprightly music helped patients with slow circulation, whereas soothing music provided relief from night terrors and insomnia. An example would be the variation between pop or swing music versus fusion and soft jazz. Taylor

and Paperte (1958) concurred that music can either increase or decrease blood circulation, pulse rate, respiration, and metabolism, and may even alter the pattern of brain waves. Lemmer (as cited in Yehuda, 2011) stated that Mozart's "Symphony #40" or "String Quartet #2" can increase or decrease the heart rate and blood pressure. Hamel (1987) asserted that low tones resonate in the lower extremities of the body, mid-range frequencies are experienced in the upper torso or chest, and higher notes reverberate primarily in the head. Similarly, McNiff (1981) indicated that drumming vibrates in the pelvic regions, stimulating action and movement and creating trance-like states.

Neurobiology integrates the emotional and cognitive processes connected to the individual, family, and environment. Pearsall (1999) stated that people are innately adaptable, and our brain functions to help us exist and survive. During infancy, the vibration of music takes on new meaning versus during childhood or adulthood as some would suspect. Fonseca asserted that the fetus perceives acoustic signals in the womb; after birth, the first aspect of language that babies learn is music: intonation, pitch, and rhythm (as cited in Bellver, 2008; Yehuda, 2011). Humans' first introduction to the power of music is in the womb, thereby understanding the dynamics of vibration between mom and fetus was in utero. Poppel and Sloboda (as cited in Degmečić et al., 2005) found that infants are naturally oriented toward rhythmically coordinated interpersonal interactions, through which we naturally communicate with those around us and gain access to the social environment. Therefore, an infant can influence as well as appreciate the behavior of the mother as they attach and bond, creating vibrant, interactive narratives colored by an infectious array of emotions. Savill stated:

> The physical effects of music are caused by the emotion it arouses in the listener, especially in those of sensitive temperament. Elderly and delicate people, nursing

> mothers, those suffering from heart trouble and high blood pressure, can be dangerously affected by some types of music. (1958, p. 16)

Music stimulates emotions by activating different regions of the right and left hemispheres of the brain: namely the hippocampus, amygdala, and other parts of the brains limbic system. These regions of the brain appear to play a role in emotion, motivation, and memory (Hutchison, 2013; Warren, 2008). The nervous system provides structure and processes for communicating sensory, perceptual, and autonomically generated information through three of its subsystems: the central nervous system (CNS, the brain and the spinal cord), peripheral nervous system (PNS, spinal and cranial nerves), and autonomic nervous system (ANS, nerves controlling cardiovascular, gastrointestinal, genitourinary, and respiratory systems; Hutchison, 2013, Jensen, 2008; Warren, 2008).

The right hemisphere focuses on creativity, emotions, pictures, and nonverbal communication, whereas the left hemisphere is analytical, logical, and organized, and entails conscious recall. When music is played, it triggers the release of neurotransmitters that either excite or inhibit a nervous system response. Therefore, when pleasant music is played, the neurotransmitter dopamine (present in the CNS and PNS) is released influencing the listener's emotions, cognitions, and motor activity thereby creating and emotional or behavioral reaction (Hutchison, 2013; Yehuda, 2011). However, when slow music is played, the neurotransmitter norepinephrine (which connects the brain stem with the cerebral cortex and regulates arousal) will decrease the response to stress, anxiety, or other events that produce undesired arousal (Hutchison, 2013; Yehuda, 2011). The neurotransmitter serotonin (which affects sensory processes, muscular activity, thinking, states of consciousness, and mood states) is increased through hearing pleasant music, evoking a positive mood, whereas exposure to unpleasant music

reduces the level of serotonin, stimulating a negative mood (Hutchison, 2013; Yehuda, 2011). Endorphins, similar to serotonin, increase eliciting either a positive or negative mood based on the musical stimulus being heard (Hutchison, 2013; Yehuda, 2011). Understanding the dynamics and structures of the brain provides an awareness to the importance of music within arts education.

Jensen (2008) suggested music as a curriculum, a focal point of study and adjunct to the learning process, and a valuable tool for integrating cognitive processing between the hemispheres of the brain. This assertion clarifies why educators and political figures supported the inclusion of the arts in the STEM curriculum, transforming it from STEM to STEAM (Langevin, 2011; "Langevin Introduces Resolution," 2015; EducationCloset, 2016).

Psychological/cognitive lens. The power of music through the mind (emotional and cognitive lens) addresses this study's three research questions. Whether music has advanced beyond the stage of troubled minds to enhance learning in thoughts, emotions, achievement, and performance is still in its infancy stage and has not been designated to any one specific theoretical model.

Psychological and cognitive development incorporate thoughts, beliefs, feelings, emotions, and other characteristics affecting the attitude, behavior, functions of the mind, and factors that can influence daily decision-making (Hutchison, 2013; Kinderman et al., 2013; Lehman et al., 2017). Therefore, music can evoke emotions that may be more complex than ordinary language. Bore (1929) asserted that music is noticeably different from other art forms by the directness of its emotional appeal.

Understanding the biological, neurobiological, and physiological effects of music provides a more comprehensive understanding of how music may influence cognitive and

psychological development. Psychological and cognitive characteristics affect an individual's attitude, behavior, and mental functions. These factors can influence how an individual thinks and processes information daily as well, as the decisions he/she makes throughout the lifespan. Hutchison (2013) stated that as cognitive and language skills grow, the ability to understand and express feelings and emotions also develops. It is through understanding the psychological and cognitive process that the Cognitive Behavioral Model or Johari Window, when applied to music and lyrics, can increase the awareness of others and ourselves.

Music has an innate ability to tap into individuals' thought processes and emotions, thereby potentially affecting their learning and influencing their intellectual abilities. This capacity can be applied to achievement and performance, thereby having a direct correlation to emotional regulation and the interpretation of emotions through lyrics and composition. Musical stimuli and components can induce emotions in several ways: (a) by triggering brain stem reflexes related to survival mechanisms, (b) by pairing with positive or negative stimuli to be classically conditioned to induce emotions, (c) by mimicking emotional contexts that can lead to a *contagious* effect (i.e., the slow soft voice of a violin and emotions associated to a slow, soft speech), (d) by creating new pictures through mental imagery, (e) by invoking episodic memories or previous mental pictures, (f) by facilitating emotions through musical expectancy (i.e., chord progression with harmonic resolution), and (g) by affecting the listener's personal and therapeutic goals (i.e., the sound of meditation or Zen music for helping someone relax or sleep; Legge, 2015).

A person's mood is connected to his/her ability to cope—manage and assimilate new and existing information, thoughts, and emotions—at any given point in time. Emotions have important and powerful effects on an individual's cognitive process. Positive moods are

associated with the increased recall of a narrative, whereas negative moods are associated with decreased word recall (Stalinski & Schellenberg, 2013). They also indicated that mood also affects the kind of information that is likely to be remembered and that memory is influenced not only by what is being processed but also by how it is being processed as well (Stalinski & Schellenberg, 2013). Sloboda (as cited in Yehuda, 2011) confirmed this finding by indicating people use music to alter their psychological state and relax them through their anxiety and stress.

Social lens. The power of music through a metaphysical-social lens addressed the initial research question regarding what effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection. Bore (1929) stated that music provides a natural outlet for expression and helps individuals make the adjustments and modifications needed to cope within social conditions. Within the biopsychosocial perspective, social factors are those that affect and influence an individual's personality, attitude, interpersonal dynamics, and lifestyle, including culture, environment, peers, family circumstances and dynamics, social networks, education, religion, job/career, and significant life events (Lehman et al., 2017; Kinderman et al., 2013; Zittel et al., 2002). Within all of these factors, a slight deviation could affect an individual's physical symptoms (i.e., insomnia, fatigue, appetite loss), behavior (i.e., the discontinuation of activities, avoiding friends), mood (i.e., sadness, irritability, guilt), and thinking style (i.e., negative self-talk, self-critical, pessimism).

Music as a universal language bypasses style and musical genres, culture, geographical areas, and historical periods, reflecting connections and communication among cultures. Gregory and Varney (as cited in Yehuda, 2011) stated that an affective response to music depends more on cultural symbols than on the intrinsic qualities of the music. Lundquist and

Sims (1996) explored social factors utilizing an ethnomusicological perspective, indicating that music is a culture that appears within its cultural context as sound, ideas, or concepts about music and music making, and is an observable behavior. Social factors encourage observations and communication about music making within and across cultural boundaries, supporting the concept of it being a universal language (Campbell, 1991; Lundquist & Sims, 1996; Taylor & Paperte, 1958; Yehuda, 2011). This perspective would, therefore, support the notion of the origin of music from slavery to the blues and the rebellion to punk rock or jazz infused with the blues becoming rock. Even in the 21st century, musicians are blending genres of music to find their voice and a specific realm of musical identity. Dr. Yorke Trotter stated that no art is nearer life than music, and it is the medium that develops the physical, mental, and spiritual capabilities of man (as cited in Bore, 1929).

The Power of Music Through Engagement

Music, lyrics, and communication. Beyond the sound of an instrument or a word on a paper is the untold story or underlying expression of emotion that has yet to be unveiled. "Music is an abstract symbolic language with no specific references or associations" (Yehuda, 2011, p. 86). The structural components of music and its lyrics allow educators to gain insight into the effects on the human psyche and spirit. Therefore, music, as indicated previously, must not be analyzed only in isolation but in relationship with other phenomena (Taylor & Paperte, 1958). Sounds and lyrics can both individually or collectively be interpreted and transcribed creating the platform for expression and gateway to communication.

Throughout the research, an overarching theme emerged that music is multifaceted and cannot be viewed in isolation but as a universal phenomenon. It can help people cognitively process virtually all human emotions, and because it transcends across culture, region, class,

ethnicity, time, gender, race, and societies is identified as a universal language (Campbell, 1991; Lerdahl, 2003; Madison, 2011; Roy & Dowd, 2010; Taylor & Paperte, 1958; Yehuda, 2011). Dance, photography, drawing, and painting are other modes of artistic expression. Lerdahl stated, "Of all the arts, music possesses the most technical vocabulary" (2003, p. 367). The composition of music and verbiage of lyrics is a phenomenon of emotional rhetoric and perspective regardless of the listeners level of musical interest due to the musicians' and listeners' interpretation. Botstein reported, "Music can reach where ordinary language cannot (2004, p. 178)." Music integrates all other human characteristics and attributes more than any other experience (Taylor & Paperte, 1958). Although previous literature agreed music is universal and cannot be viewed in isolation, discrepancies in labeling music as a universal language were found (i.e., transcends across culture, region, class, ethnicity, time, gender, race, and societies) versus a phenomenon (the integration of music, mental processing, and education). Botstein agreed but later argued:

> There is no audible universal grammar or pitch structure, just as there is no universal language. In music as in language there may be shared underlying rules and structures, but not shared content or specific resolutions of the use of pitch and rhythm. (2004, p. 180)

Pratt disputed, "Music is neither a language nor an emotion" (1954, p. 291). Based on the literature and my experience as a clinician, educator, and former artist, it is presumed that music can be both: a universal language and phenomenon that cannot be viewed in isolation.

Music is a phenomenon that can elicit the basic emotions of happiness, sadness, anger, and fear. Music is not static, and it is because of past and continuously emerging genres, trends, musicians, and societal issues, individuals, groups, and communities can learn to communicate

and coexist in conflicting worlds while listening to music (Pearsall, 1999). The example provided in Chapter 1 applying artists' musicality and lyrics to the social situations of the times displayed how thoughts and emotions can be expressed across conflicting worlds within a safe platform.

According to Lederach, artists may recognize lyrics as the catalyst for change and the voice of the people as they utilize their musical framework and platform to understand and bring awareness to the issues, context, and structure of identified conflicts (as cited in Opiyo, 2015). With the composition of music, people gain an emotional understanding of self through melody (tune, series of pitches), beat (musical rhythm), rhythms (timing of group of notes into accented and unaccented beats), contours (the emotional shape of the melody), chord progression (a string of chords played in succession), harmonies (supporting notes to help set the framework and tell the story), major keys (bright upbeat mood), and minor keys (dark, melancholic mood; Pearsall, 1999; Sovansky et al., 2016). Because sound is all around us, it reaches and touches us whether we want it to or not physically, emotionally, and metaphysically (Yehuda, 2011).

The limitless effects of sound create our sense of taste and communication to be altered based on our psychological perception. Researchers have indicated that diverse background noises can increase or decrease particular tastes and the liking of food and drinks based on association. With louder music, sweet and salty tastes are less intense (Woods et al., 2011; Yan & Dando, 2015). It would also seem that loud noise in a dining environment can significantly compromise the sense of taste (i.e., the musical pitch) affecting the intensity of the taste. High-pitched music/noise is associated with sweet and sour tastes whereas low-pitched music/noise increases the impact of bitter or savory tastes (Yan & Dando, 2015). These phenomena can

influence an individual's psychological processing and social factors when music is played while dining with others.

Music and enhanced learning. Music taps into our emotional well-being, thereby affecting behavior and resulting in a change in productivity and performance. Dryden indicated that the commitment and dedication involved in the study, training, and performance of music demand mastery of the highest level of intellect, memory, concentration, and emotion, as well as the optimum tuning of coordination and sensory awareness (as cited in Underwood, 2000). As a result, music can be identified as a contributing factor to the core concepts of success given that it supports the development of commitment, dedication, discipline, determination, and perseverance. According to Riethmüller, "The state of mankind improves through music; music not only trains but educates individuals and makes them fit for a life of community. Music is spiritual and mental food, and edifying and educational power" (2008, p. 170). The question remains whether music has advanced beyond the stage of entertainment or soothing troubled minds to enhance learning and performance whether as a listener or an artist. Researchers indicate that the discipline and commitment required to learn to play a musical instrument contributes to acquiring developmental study habits, self-discipline, and self- motivation, thus enabling enhanced learning (Underwood, 2000).

Music and achievement. Over the years, the role of music has received conflicting support within the educational system. Southgate and Roscigno stated, "Music is an important dimension of academic development" (2009, p. 5). According to a Gallup Poll conducted and reported by the 2003 American Music Conference, "Ninety-five percent of Americans believe that music is a key component in a child's well-rounded education" (as cited in Southgate &

Roscigno, 2009, p. 5). Unfortunately, this statistic was not supported in approving STEAM versus STEM education:

> It is said that the state of mankind improves through music; music not only trains but educates individuals and makes them fit for a life of community. Music is spiritual and mental food, and edifying an educational power. In extreme cases, one encounters the tenet that music elevates man into a higher realm, transforming him into a new form of the human species. (Riethmüller, 2008, p. 170)

Music is the catalyst to the emotional and physical behavioral change in academic transformation. For example, School House Rock videos utilize high-energy songs demonstrating knowledge as power, teaching K–8 students grammar, politics, science, English, arithmetic, and politics. Bellver (2008) reviewed the Mozart effect, which reduces short-term improvement on mental tasks which showed classical music enhances spatial, temporal intelligence, mathematical capabilities, and abstract thinking.

The cognitive process, as discussed under the biopsychosocial approach, can be both simplistic and complex. "Music within complex systems offers a rare oasis of protected private and public experiences where emotion can be expressed and nothing betrayed" (Botstein, 2004, p. 186). The idiosyncrasies embedded within an individual's thought processes that may affect academic achievement or job performance could be complex and outside the educator's conscious awareness. Senge (2006) defined mental models as deeply ingrained assumptions, generalizations, pictures and images that can affect what we see, influence how we understand the world, and shape how we take action. These models lay outside our conscious awareness yet have a direct effect on our behaviors. Degmečić et al. indicated, "Musical communication takes place between two highly intimate and subjective structures of understanding, reacting to, and

experiencing the world" (2005, p. 288). However, the same student, when provided educational material via a School House Rock video or other mediums that encompass the educational content in music, lyrics, and images, will experience a shift in comprehension as the musical communication takes place. Kress's (2010) Multimodality Theory encompasses all learning styles—visual, auditory, and kinesthetic learning—by using modes of art, writing (lyrics), and music (composition), enabling individuals (i.e., non-musicians, amateur musicians, and professional musicians) to explore their challenges, identify their strengths, design a strategy for comprehension, and implement a plan for enhanced learning. Dunn (2008) found that auditory learners responded to musical stimuli, visual learners responded to visual stimuli, and kinesthetic learners focus on movements or how certain movements made them feel.

Music helps students with assimilation and accommodation to life circumstances. Bore (1929) reported, "Psychology has shown that the adjustment of the individual to his environment and the full development of his personality within the limits of that environment are matters of first importance to the educator" (p. 139). Musical learning occurs throughout the lifespan and is cross-cultural, similarly to music, new behavior can be learned from existing and new information. Furthermore, "psychology has demonstrated that given a person's healthy adjustments to their environment, the normal child has an appetite for knowledge and an aptitude for learning so great that even the persistent discouragement of education can't stop them" (Bore, 1929, p. 139).

Music as an educational language offers students and listeners specific stories of shared struggles and triumphs. Opiyo (2015) stated that music plays an important role in educating youth, as it teaches people good practices to follow and bad practices to avoid. Hence, how we process, grow, and learn information, is how we learn to act. The lyrics often provide the

narrative and the underlying music provides color, texture, setting, and background. According to Opiyo (2015), music is another form of education, and as an adjunct to formal education, it aids in further developing and nurturing the minds of young people. According to Bellver (2008), music has been shown to stimulate and enhance memory and reading, which would ultimately support learning.

Music and performance. Music is innately interwoven in our daily lives, whether it is heard when picking up groceries, driving to work, walking, eating, studying, or as background music at the gym. Music can also be heard in the work environment, such as hotels, restaurants, retail stores, hospitals, banks, or offices (Bellver, 2008; Young & Nolan, 2015).

The discussion between achievement and performance as it relates to our attention capacity is still present. According to Young and Nolan (2015), music can be passive or active and require more or less attention based on the amount of attention we spend listening to it, therefore, drawing attention away from tasks that exceed one's attention capacity. However, understanding the effects music has on job performance as opposed to academic achievement and the sense of relaxation needed in a stressful work environment is being researched. One investigation by Oldham concluded that listening to music while working would increase performance, morale, and satisfaction, whereas silence, background music, and noise each had a negative impact on work performance (as cited in Huang & Shih, 2011).

Music can have significant effects on the human psyche. Savill stated, "Emotion affects the organs not only while the emotion is felt, but also for a period after it has subsided" (1958, p. 21). Therefore, applying self-selected calming music within one's daily routine can enhance relaxation by eliciting calm and happy emotions that would be more acceptable and performance-enhancing in the workplace than fear, anger, unrest, anxiety, and worry. According

to Leichter, “the origin of music and musical expression lies within the inner psychic tensions which seek out their relaxation through music. And, the final intention of expressing, performing, or comprehending music lies in psychic relaxation” (as cited in Degmečić et al., 2005, p. 288). With this in mind, how, where, the frequency with which, and in what context we listen to or hear music re important. Whether enhanced learning is focused on achievement or performance, ultimately learning arises out of two basic levels: (a) what the learner can do resulting in what he/she produces, and (b) when the learner can reliably produce a certain quality of results as an effect of the deeper learning (Senge, 2006).

Theoretical framework

Research has utilized a wide variety of theoretical frameworks to explore the power of music, the integration of music and mental processing, and the integration of music and education. Riethmüller stated, “Throughout history, many theories concerning music—whether musical, philosophical, theological, sociological, or political—share the conviction that music moves or tangibly influences its audience in an ethical or moral way” (2008, p. 169). Within each of these studies, strengths and weaknesses were identified; however, no specific theoretical framework could adequately explain the use of music to enhance mental processing and explore its effect on enhanced learning from the collaborative lens of the artist, clinician, and educator.

The integration of music and mental processing and its effect on enhanced learning cannot be understood completely using a singular theory, model, or technique. An eclectic approach is needed in which several theories are used and theoretical strips (selected portions of a theory) extracted to help analyze and explain the interconnectedness of the use of music to enhance mental processing and its effect on enhanced learning within this study (Lazarus, 1989;

See, 2007; Shoben, 1962). Utilizing an eclectic approach, blending previous theories found throughout the research with those yet to be addressed could be a plausible method to aid in the comprehension and understanding of the effects of music on enhanced learning. Pearsall stated:

> Due to constant updating, one can attend to and live in a number of different—perhaps even conflicting—worlds while listening to music. Similarly, more than one theoretical perspective might pop into and out of consciousness from moment to moment. (1999, p. 237)

This research explored the effects of two variables, music and mental processing, on enhanced learning, thereby decoding the internal and external underpinnings of learning and intellectual ability as well as emotional and physical behavior changes that lead to transformational healing. According to Senge (2006), enhanced learning builds on the capacity, process, and development for effective action. Although several theoretical frameworks and techniques were identified throughout the research, the two this study focused on are the Iso Principle and Conflict Transformation Theory due to the internal and external aspects influencing the transformation of behavior. The Cognitive Behavioral Theory, Johari Window Model, and biopsychosocial approach were also addressed since the foundation of this study's methodology are deeply rooted within the cognitive process that this research explored. As shown in Table 2, it is useful to consider an eclectic approach to provide a more comprehensive theoretical framework and to organize these methods, for example, by their degree of internal or external subsystem, their components within the biopsychosocial approach, interpersonal and social awareness, their defining purpose, and their integration with music. Applying a systemic method provided the opportunity to elaborate on the multidimensional interpersonal factors within the biopsychosocial approach and theoretical integration.

Table 2

The Theoretical Integration Between Theories, Technique, and Models

Johari Window Model Joseph Luft & Harrington Ingha	**Conflict Transformation Theory** John Lederach	**Iso Principle Technique** Ira Altshuler	**Cognitive Behavior Model** Aaron Beck	**Biopsychosocial Model** George Engel
* Internal and External	* External	* Internal and External	* Internal	* Internal and External
* Biological * Psychological/ Cognitive * Social	* Biological * Psychological/ Cognitive * Social	* Psychological/ Cognitive * Behavior	* Biological * Psychological/ Cognitive * Behavior	* Biological * Psychological/ Cognitive * Social
Interpersonal Relations	Interpersonal relations, relationships, and social structures	Interpersonal Relations	Interpersonal Relations	Interpersonal relations, relationships, and social structures
Awareness of self through four windows: open, closed, blind, and unknown potential	Transformation of perceptions of issues, actions, and other people or groups	Transformation of behavior	The process of how thoughts affect emotions thereby affecting behavior	Understanding behavior through the biological, psychological, social domains
Music creates an internal awareness of individuals and the perceptions of others	Music addresses the issues of society to generate change	Music transforms behavior	Music identifies thoughts, affecting emotions, thereby affecting behavior	Music explains the ideology of human behavior

Blending music, mental processing, and education demonstrated a need to gather information on a systemic level (i.e., internally and externally) to identify the components affecting or influencing human behavior as seen in Table 2. This systemic process involved identifying the focal point (i.e., non-musician, amateur musician, or professional musician) and analyzing his/her subsystems and suprasystems, as seen in Table 1. The other end of the systemic structure involved researching the participant's environment by analyzing the biological, psychological, and social systems that affect and influence their daily functions and

how that affects how they make decisions. The interpersonal relations and social structures within each framework identified their sense of internal and external awareness and the assumptions made. Last, using the integration of music to enhance mental processing as a lens to understand human behavior enabled a different lens to be explored by analyzing the cognitive processing and emotional regulation that leads to the emotional and physical changes to the extent music could be related to specific changes in emotions and physical reactions and its capacity to enhance learning. Lyrics and Music by Design assessed these different internal and external theoretical frameworks from the perspective of the artist and listener.

The Johari Window Model. The Johari Window Model helps people look at themselves and others both inside and outside our fields of awareness. "Learning experiences begins with self-awareness, then moves into interpersonal awareness" (Scudder, Lacroix, & Gallon, 2014, p. 8). The Johari Window is a model of awareness in interpersonal relations that depicts our internal and external field of awareness incorporating a two-by-two table of four domains also known as windows (Berland, 2017; Luft, 1970). These awarenesses are windows into ourselves, and a change in any quadrant affects all other quadrants (Luft, 1970; See Appendix A, Table 1A). The strength of this framework as it relates to this study is that it identifies our four levels of awareness and demonstrates not only how we choose to interact with others but also how we look at ourselves. The quadrants are as follows:

- Quadrant I—Open Window (i.e., open to the public, a part of ourselves that we know and are willing to let others see);
- Quadrant II—Blind Window (i.e., the blind access part of ourselves of which we are unaware, but that others can see);

- Quadrant III—Hidden Window (i.e., the private area that we know about ourselves, but avoid revealing to others);
- Quadrant IV—Unknown Potential (i.e., one's real undiscovered self; Luft, 1970).

A limitation of this model in isolation as it applies to this study lies within quadrants II and III. Quadrant II, the blind window, is outside the field of awareness (Luft, 1970). Although a musician may compose or create his/her emotions through sound and words, the performance may contradict the interpretation and outcome, thereby confusing the listener and potentially evoking a misrepresentation of the artist both internally within the self and externally through extraneous variables. For example, if an artist composes on love and happiness but his/her performance is fueled by darkness and anger, unless the conflict is brought to his/her attention, the artist would be unaware that his/her internal psychological factors are in misalignment with his/her external performance. In contrast, a listener may unintentionally demonstrate unorthodox behavior, until he/she is informed; about this, others may misinterpret that as a sign of disrespect or ill will toward the artist.

In quadrant III, the hidden window, non-musicians, amateur musicians, and professional musicians may face challenges with self-esteem, depression, anxiety, or other matters of a sensitive nature that are private and purposefully not disclosed to others. By design, lyrics and composition may be the only entities that encapsulate that emotion thereby giving a voice to the voiceless.

Conflict transformation theory. The Conflict Transformation framework is externally based. It exhibits the interdisciplinary, transformative nature of music, drawing from disciplines such as psychology, sociology, and ethnomusicology, and practice realms of development and peace building (Opiyo, 2015). Through this framework, the energy from external conflicts

underlying relationships and social issues can be used to generate change. According to Lederach, Conflict Transformation stipulates that peace builders must develop a capacity to hear and engage the voices of identity (as cited in Opiyo, 2015). Doing so would entail the transformation of relationships and interests with the intention of eliminating the identified conflict (Kopecek, Hoch, & Baar, 2016).

The strength of this framework is its focus on engagement, listening, and providing a platform to share deeply rooted feelings and emotions, such as those from the days of slavery when music was used as a mode of communication, outreach, and engagement, and expression of pain, suffering, and hope for the future. American Black music originated when slaves on plantations were systematically deprived of an outlet for human expression, by the slaveholders who feared drums and other instruments would be used as a means of communication between slave assemblies and tools of insurrection. Therefore, the spoken word, the chant, and dancing were the only modes of creative expression left to the slaves (Salaam, 1995). Conflict Transformation Theory provided slaves that platform of shared expression, communication, outreach, and engagement.

A limitation of using this framework in isolation is that the focus appears more on external factors than internal thoughts, feelings, and emotions. The conflict within one's identity may stretch beyond the traditional realms of societal issues, bridging the intersectionality of culture, gender, race, socioeconomic status, and sexual orientation (Robbins et al., 2012, 2019). Within these oppressions, music provides an alternative platform and voice to amplify the cries of the voiceless and create lyrics and compositions to articulate the hardships of life. Okumu stated, "Artists often position themselves as the voice of the people" (as cited in Opiyo, 2015, p. 47).

Iso principle technique. The Iso Principle technique focuses on both intrinsic and extrinsic components. Pratt (as cited in Taylor & Paperte, 1958) suggested that music sounds the way emotions feel and indirectly embodies and resembles the formal characteristics of inner dynamics. This principle guides the process of emotional transformation. The Iso Principle is a music therapy technique and process in which music is purposefully selected to match the person's mood and then gradually modified to induce the desired mood (Davis, Gfeller, & Thaut, 2008; Heiderscheit & Madson, 2015). The strength of this principle supports the notion that not all thoughts can be communicated effectively and not all emotions can be easily identified, especially among those who struggle to find meaning and purpose within their cognitive processes. Therefore, based on the Iso Principle, music can be a safe foundation for self-exploration and expression.

A limitation of this theory is the assumption that an identified emotion has been portrayed accurately. According to Pratt, the structure of music is similar to but not the same as the structure of the emotional experience (as cited in Taylor & Paperte, 1958). This is debatable, as music provides a platform of expression, based on Conflict Transformation Theory. However, the Iso Principle is not concerned with the songwriter, artistic composer, or listener mood for this study as it is not attempting to match the participant's mood to the desired response. Degmečić et al. (2005) stated that the subject who is creating, performing, or receiving music can use meaningful structures to build his/her world into a meaningful and harmonious entirety.

Cognitive behavioral model. Surprisingly, the Cognitive Behavioral Model is a framework was not formally addressed in any of the research, yet it was articulated indirectly throughout, as it emphasizes the effect of inaccurate beliefs on one's cognitive process. This theory incorporates cognitive conceptualizations of behavior while highlighting social and

cognitive elements that contribute to behavior (Pachankis, 2007; Robbins et al., 2012). In an artistic form, it allows the artist to understand the larger situation, extrapolate significant interpretations, and recognize the connections between his/her thoughts and emotions. It was initially founded in efforts to guide clients to recognize their internal dialogue of negative thoughts and explore the validity of their beliefs through a process of Socratic questioning and the use of behavioral experiments (Hollon, 2010). Redefined for the artist, it enables observable behavior transformation in the composition of music and the creation of lyrics. Initially formulated for depression, this model is a fusion of cognitive and behaviorally-based elements, originating from the notion that an individual's thoughts, feelings, and behaviors interact, are interconnected and affect one another (Hollon, 2010; Hutchison, 2013; Iverach, Rapee, Wong, Lowe, & Iverach, 2017). Within the mental health practices, educators can analyze how cognition is understood through the artists' conscious and preconscious thinking processes thereby providing creative instructional guides to enhance learning.

The strength of the Cognitive Behavioral Model lies in its application for musicians and listeners to analyze and conceptualize their individual and collective journey in a narrative form using lyrics as the medium for reflection and expression of their thoughts, emotions, and behavior (see Appendix B, Figures B1 & B2). The narrative has been a long-standing form of learning in which learners and artists share stories and examples enabling a new voice to be heard, which is a re-engagement technique (Biech, 2014). Therefore, artists are consciously aware or can readily become aware of their self and others with guidance or exploration (Hutchison, 2013). Utilizing this theory provides an understanding of both pre- and post-behaviors based on the thought process of the artist and learner and creates a tool via which future achievements and performances can be analyzed utilizing a mixed methods methodology,

investigating how an individual receives, understands, and assimilates new and old information. Musicians and listeners form perceptions about the world based on their observations and experiences and choose one dominant view over another (Berzoff et al., 2016).

A limitation of using the Cognitive Behavioral Model is assuming open-ended thoughts and emotions can be identified without prompting. There is a challenge when those who are hesitant to express seek validation from others as to their thoughts and emotions versus seeking their voice through self-reflection.

Biopsychosocial model. Music has been the catalyst of stimulating an emotional, behavioral reactive, or responsive experience across cultures, generations, and systems individually and collectively. According to Lerdahl (2003), there is a complexity to music when connecting it to human existence, and that presence and change exists across all human societies. This transformation is understood through a biopsychosocial lens, which demonstrates how an artist's lyrics and compositions integrate with an artist's/listener's cognitive processing and emotional regulation thereby affecting emotional and behavioral changes (see Appendix C). Several researchers have proposed that music-evoked emotions are identified within the biopsychosocial domains, indicating that music-evoked emotions have biological similarity to daily emotions (as cited in Heiderscheit & Madson, 2015). Integrating the relationships among the concepts of music, mental processing, and enhanced learning provided a deeper analysis of human behavior and an alternative view and understanding versus observing each element in isolation, as in previous studies. Applying a biopsychosocial approach provided a holistic view encapsulating the internal and external systems of human behavior and the social environment in which educators and therapeutic service providers can identify, analyze, and seek to explain the rationale for how changes in one system effect changes in other systems (Hutchison, 2013).

The limitation of using the biopsychosocial model in isolation is its broad framework for conceptualizing the interactive nature of the artist and listener and their environment. It fails to provide specific interactions and relationships within and among its various domains as the Cognitive Behavioral Model suggests through its process as an artist or listener. Also, the private and hidden windows within the Johari Window Model have the potential to be more precedent challenging if the open window is not available. The unknown potential window is scarcely utilized alleviating the opportunity for enhanced learning.

Conclusion

Based on the review of the literature, the gap in knowledge includes taking an eclectic view of theoretical frameworks to explain the holistic effects of music on human behavior and enhanced learning, but also providing a more in-depth exploratory view of mental models and the biopsychosocial perspective. If music and life are intertwined, then it would be appropriate to look more holistically at the narrative, qualitative, phenomenological approach from those creating and listening to music. The narrative would provide a more in-depth analysis of how mental models are interconnected and why the fields of awareness in interpersonal relations using the Johari Window Model and biopsychosocial approach may be effective.

This study blended the styles of visual, auditory, and kinesthetic learning through triangulation of observations, documents, interviews, and audio-video materials. By utilizing this method, along with subjective qualitative questions, both internal and external representations that have the potential to affect participants' biological, psychological, and social systems and phenomenological experience were filtered through language, memories, decisions, beliefs, values, and attitudes. This process added to the holistic immersive experience.

This study, unlike others, fostered enhanced learning by providing an eclectic approach to the study, utilizing key elements from four theoretical frameworks to ensure depth to the comprehensive analysis. A holistic approach was used by applying a qualitative approach to identify the effects of music integrated with mental processing on enhanced learning. This holistic exploration helped to provide an awareness of the effects of the integration of music and mental processing on enhanced learning and helped understand the purpose and meaning of music in our daily lives. Packalén concluded "Music may very well be 'a sounding image of human mental states' and possibly 'yield insight into our inner life' thereby, incidentally, giving 'a reason for the importance of music in our daily lives'" (as cited by Yob, 2010, p. 149).

Summary

No single study has offered definitive evidence of the use of music to enhance mental processing and its effect on enhanced learning. Although they are not conclusive, the studies tended to show that through the use of music to enhance mental processing, music not only enables open mindedness but also, because it lies innately within our biopsychosocial development, it automatically ignites a spark of emotions felt within the human body, mind, and metaphysical connection and spreads across societies for decades. Underwood stated, "Music is more mental than physical and can enhance reasoning ability, problem-solving, memorization, communication, and listening skills" (2000, p. 2).

As a universal phenomenon, music can bridge the generation gap and find commonalities that enable individuals, communities, and societies to coexist. Understanding the holistic effect, cognitive process, and healing can analytically and qualitatively support further exploration into the awareness of music and the need to rebuild, revitalize, create, and develop more interactive opportunities to incorporate music within people's daily lives.

Chapter 3: Methods

> So long as the human spirit thrives on this planet, music in some living form will accompany and sustain it.
>
> —Aaron Copland (Goodreads, 2019)

Many researchers have suggested that music enhances our knowledge and understanding of human behavior. Degmečić et al. (2005) suggested that musical communication incorporates both internal and external structures to understanding, reacting to, and experiencing the world. This research described how musical communication affects learning, cognitive processing, emotional regulation, and behavior. This chapter describes a qualitative, phenomenological approach to exploring music as a lens to understand human behavior through an analysis of research participants' cognitive processing and emotional regulation. The application of a phenomenological approach allowed the research to consider to what extent music could be related to specific changes in emotions and physical reactions and its capacity to enhance learning.

Purpose of the Study

The purpose of this phenomenological study was to use music as a way to understand human behavior. By analyzing the findings of this study, the essence of the participants' lived personal experiences, attitudes, behaviors, and emotions were explored to investigate the use of music to enhance mental processing and explore its effect on enhanced learning (Creswell, 2018; Lodico, Spaulding, & Voegtle, 2010). This exploratory study sought to expand on previous studies that discussed music's ability to enhance participants knowledge of emotions by applying an eclectic approach utilizing theoretical strips (selected portions of a theory) from the Johari Window Model, Conflict Transformation Theory, Iso Principle, Cognitive Behavioral

Model, and Biopsychosocial Model. This chapter includes a discussion of the research methods, research design, sources of data, data collection strategies and procedures, and tools and instruments used. Also included is a review of human subject considerations, data analysis, the means to ensure study validity, and the plan for reporting the findings.

The qualitative data collected is significant in that it described the essence of the participants' lived experience through the interpretation of music and lyrics from non-musicians to professional musicians (Gold, Frank et al., 2013; Kliuchko et al., 2015). It enabled an in-depth understanding of human behavior via cognitive processing and emotional regulation by exploring varying interpretations of participant views on music and lyrics. This study also explored the emerging methods of the integration of music and mental processing that leads to the emotional and physical changes, thereby operationalizing the concept of enhanced learning (Creswell, 2014, 2018; Lodico et al., 2010).

Re-Statement of Research Questions

- What effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection?
- How does music tap into our thoughts and emotions thereby affecting our behavior?
- How does music soothe troubled minds and enhance learning and performance?

Nature of the Study

This qualitative study explored the meaning and interpretation of lyrics and composition participants ascribe to a societal issue or human experience through the lens of a musician, clinician, and educator. This qualitative phenomenological design used an interpretive framework and social constructivism and pragmatism paradigm (Creswell, 2014, 2018). In so

doing, this study strove to achieve a deeper understanding of the essence of the lived experience of non-musicians and professional musicians when trying to write, compose, or listen to music.

Methodological Assumptions

Three assumptions were made during this study: (a) participants' age and gender would not significantly affect their perceptions, (b) participants would respond to all open-ended questions honestly and to the best of their ability, and (c) the ambiance of the facility would not significantly distract participants or affect their concentration and participation.

Research Design

The study's qualitative methods approach utilized a phenomenological design with an interpretive framework and epistemological beliefs. Through this framework, a social constructivism and pragmatism paradigm was applied. Data regarding the essence of the phenomenon of music enhancing one's cognitive process, emotional regulation, emotional and physical behavioral changes, and its affect on enhanced learning were collected through a live event and analyzed through themes and pattern interpretations from observations, interviews, documents, and audio-visual materials (Creswell, 2014, 2018). Using this phenomenological design (see Table 3), the researcher addressed both the musicians and listeners' essence of their lived experience to achieve the study's goals and address the research questions.

Table 3

Qualitative Methodology for the Music and Lyrics by Design Study

Research Design	Framework	Paradigm	Research Design	Validity Strategies
Phenomeno-logy	*Interpretive *Epistemological Beliefs	*Social Constructivism *Pragmatism	*Interviews *Observations *Documents *Audio-visual materials	*Triangulate *Member Checking *Detailed Description *Bracketing

Qualitative Methodology

Utilizing a qualitative research approach provided the opportunity to analyze language to explore and understand the meaning and interpretation of lyrics and composition participants ascribe to a societal issue or human experience through the lens of a musician, clinician, and educator. It provided the lens through which the researcher focused and designed the questions used to gather participants' interpretations of the effect music has on their thoughts, feelings, and behaviors (Creswell, 2014; Field, 2015).

A limitation of qualitative methodology is that it does not draw conclusions or provide statistical analysis, instrument-based questions, statistical interpretation, data supporting performance and attitude, or explanations of the associations among the variables, which a quantitative design would do (Creswell, 2014, 2018).

Phenomenological Design

The phenomenological design addressed the phenomenon to yield a deeper understanding of the essence of the lived experience from non-musicians and professional musicians when trying to write, compose, or listen to music. Seeking a deeper understanding of this lived experience provides enhanced learning of interpersonal awareness of self and others and clarity as to one's cognitive process and emotional regulation that affects a transformational behavioral change. Thoma, Ryf, Mohiyeddini, Ehlert, and Nater (2012) stated that "listeners use music to regulate their current emotional states" and that "music is functional in regulating mood" (p. 551). Sarrikallio indicated "the concept of mood or emotion regulation refers to processes of modifying the occurrence duration, and intensity of both negative and positive affective states" (2012, p. 97).

> Listeners engage with music on an emotional level, which may involve physiological responses (Blood & Zatorre, 2001; Salimpoor et al., 2013) evocation of personal memories (Janata et al., 2007), and regulation of mood (Chin & Rickard, 2013; Saarikallio & Erkkila, 2007). (as cited in Vanstone, Wolf, Poon, & Cuddy, 2016, p. 474)

The phenomenological design helped the researcher explain the participants' lived experiences regarding the phenomenon of music enhancing one's cognitive process, emotional regulation, emotional and physical behavioral changes, and its affect on enhanced learning as reported through observations, interviews, documents, and audio-visual materials (Creswell, 2014). Participant statements and quotes were explored via Moustakas's transcendental phenomenology, investigating the essence of their textural and structural descriptions (as cited in Creswell, 2014). Utilizing a combination of textural and structural descriptions provided insight into a variety of emotions, perspectives, and interpretations thereby understanding the notion why music has been identified as a universal language. Music can help people cognitively process virtually all human emotions, and because it transcends across culture, region, class, ethnicity, time, gender, and race, it is identified as a universal language (Botstein, 2004; Campbell, 1991).

To mitigate the researcher via bracketing is consistent with phenomenological design. The lens from which the researcher observed participants could have presented a bias of interpretation, minimizing or neglecting the potential effect of the researcher's personal experiences (Creswell, 2018). For example, verbal and nonverbal communication may have a differential impact and interpretation than what was intended by the participant and observed by the researcher. Also, participants' disclosure may have fallen within quadrant III (the hidden

area) of the Johari Window, affecting the true essence of the lived experience and resulting in skewed results.

Interpretive Framework

Last, the interpretive framework enabled the researcher to explore and analyze the participants' responses, identify their mental models, and investigate their internal and external field of awareness (from their Johari Window) while writing, composing, or listening to music. According to Senge, "Mental models are deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action" (2006, p. 8). He suggested that they "focus on the openness needed to unearth shortcomings, in or present ways of seeing the world" (p. 12). Mental models are similar to the hidden area (quadrant II) of the Johari Window (Luft, 1970), as described in Chapter 2, in which people are not consciously aware of their ingrained assumptions, generalizations, or shortcomings (Senge, 2006).

An epistemological belief system, within the interpretative framework, helped the researcher explore how the essence of participants' lived experience was (a) co-constructed and interpreted through the lens of the artist and researcher and shaped by individual experiences applying a social constructivism paradigm and (b) described to others through a variety of sources (i.e., observations, documents, interviews, video recordings) which gathered both inductive and deductive evidence (Creswell, 2014, 2018). Through triangulation, the study explored the interpretation of the artists' use of language via their lyrics to communicate their thoughts, emotions, and behaviors, participants' interpretation within their field of awareness (Johari Window), and the researchers shared individual experiences with the participants (Creswell, 2014, 2018; Luft, 1970).

It is through an interpretative framework that the essence and power of music can be explored though previous research. Bolman and Deal (2013) indicated that music captures and expresses life's deeper meaning, and when people sing, there is a bond in which an emotional connection takes place that may otherwise be hard to express. Stalinski and Schellenberg (2013) stated that emotions have important and powerful effects on an individual's cognitive process. This supports Dube and Le Bel who mentioned that people who listen to music are steadily ranked as one of the most beneficial human experiences (as cited in Gold, Frank et al., 2013). Also, Slobod and O'Neill and Saarikallio and Erkkila reported people predominantly listen to music for emotion and mood regulation signifying a possible operative role of musical pleasure (as cited in Gold, Frank et al., 2013). It is within the interpretative framework that thoughts, feelings, and emotions, can be widely interpreted through the lived experiences of participants.

Phenomenology of the Researcher

Using qualitative methodological approach not only helped provide an awareness of the effects of the integration of music and mental processing on enhanced learning but also promoted understanding of the essence of the lived experience of the participants, the message behind the lyrics, and the effect music has on life.

For example, since I am a former artist who grew up in a multigenerational family of musicians, for me, music has been a cultural symbol of emotional regulation, representing everything from entertainment to solace. This exposure to music and lyrics whether through composing, writing, or singing facilitated my transition to my clinical practice in which I apply music and lyrics as a therapeutic tool and coping mechanism for clients. Therefore, I implemented bracketing to clarify any bias I brought to the study due to personal experiences. Additionally, reflexivity was significant as it described how my role as the researcher in the

study, my personal background, and experiences may have shaped the direction and interpretation of the themes and meaning attributed to data in the study (Creswell, 2014, 2018).

According to Hutchison (2013), cultural symbols (i.e., music) shape our perceptions and expressions, and guide how we see, feel about, and think about the world around us. As an example, verbal and nonverbal symbols shape and define not only individual and family values and systems but cultural heritage as well (Bolman & Deal, 2013; Hutchison, 2013).

In conclusion, music as my cultural symbol allowed me to process life's circumstances whether writing or listening and provided a safe platform and pathway incorporating the validation and management of emotions, the escape of lived experiences, and the transformation of emotional and physical behavior. According to Cohrdes, Wrzus, Frisch, and Riediger (2017), music listening offers an affect regulation strategy; an individual's mood significantly changes before and/or after they listen to music. Cohrdes et al. stated, "Affective experiences such as anger, sadness, or joy, are a fundamental part of human life, and so are the desires to control or regulate them" (2017, p. 1777); hence, the integration of music and mental processing and the effects of enhanced learning were explored through the participants' subjective meanings, statements, quotes, interpretations, and lived experiences (Creswell, 2014).

Sources of Data

Target population. This study explored the use of music to enhance mental processing and explore its effect on enhanced learning for on-musicians, amateur musicians, and professional musicians in Los Angeles County, California. The target population solicited for this research were 30 males and females between the ages of 18 and 90 years old who self-reported as non-musicians, amateur musicians, and professional musicians. There were two age classifications to explore the researcher's assumption that age would not significantly affect

perception; participants aged 18–25 were classified as young adults, and participants aged 26 and older were classified as adults.

A stratified purposeful sampling approach of the 30 solicited was conducted with nine participants. This sample size was stratified purposefully to encompass a minimum of three participants per sub-category to facilitate comparisons of the lived experience (Creswell, 2014). The three sub-categories (Gold, Frank et al., 2013; Kliuchko et al., 2015) encompassed participants who had experienced the phenomenon of the integration of music and mental processing and the effects on enhanced learning included: non-musicians (i.e., no music experience, individuals who played any music outside regular school, had a little practice that was not recent, or musical experience less than five years), amateur musicians (i.e., musically trained individuals or were self-taught, did not graduate from a music school, one–five years weekly practice, and no more than five years of experience that had not been recent), and professional musicians (i.e., musically trained for more than five years, practiced an instrument or sang regularly, and earned income from music teaching and/or performance). Exclusion criteria included (a) anyone unwilling to be recorded during the interview, (b) anyone who was unavailable to attend the live event, and (c) any participant who was unwilling to sign the consent form.

The gatekeeper (co-host of a local multi-entertainment entity) helped the researcher purposefully select participants who met the eligibility requirements for the study, enabling the researcher to explore the essence of participants' experience in-depth, understand the phenomenon, and address the research questions (Creswell, 2014). All participants met the criteria under one of the three sub-categories, and recommendations from the gatekeeper as well

as the researcher's knowledge of selected participants' interest in music were all considered within the selection process.

Gatekeepers. Two gatekeepers were involved in this study. The primary gatekeeper, the co-host of a local multi-entertainment entity, helped the researcher locate people and host a jam session and open mic immersive experience after the study. The secondary gatekeeper was the owner of the venue who provided site access (Creswell, 2008).

Setting. This study was conducted in Los Angeles County, California. It was located at a community hub in which local and non-local artists, performers, and community members gather for music, the arts, and fellowship while enjoying exotic tea and coffee blends and vegan food. This was a stratified, purposeful selection, as the venue was representative of the population under investigation (non-musicians, amateur musicians, and professional musicians) and provided opportunities and ongoing events for the art and entertainment community to congregate and showcase their talents (Creswell, 2014).

The study entailed a live event that was video recorded for the researcher to observe auditory, visual, and kinesthetic learning and document participants' live performances and verbal/non-verbal interactions. Musical instruments were strategically placed on the stage with a standing microphone and a 24 x 36-inch Music & Lyrics by Design Poster prior the study. The back wall of the stage was utilized for video projection.

An 18 x 24-inch poster was located at the entryway of the venue advertising the study. It was placed strategically next to the registration table, where participants signed in to obtain their ID badges, return their consent forms, and conduct their first interviews. Five tables were arranged, accommodating one to two participants per table. Placeholders identifying the Music &

Lyrics by Design Study were positioned at each table to create a creative tone and artistic ambiance.

Types of data. Multiple sources were utilized to collect the data (i.e., observations, interviews, documents, and audio-visual materials) that were examined, clustered into topics, and organized into major and minor themes. Inductively, a comprehensive set of emerging themes was constructed between the data provided and the theoretical integration. Deductively, data were reviewed as themes emerged to determine whether additional data and information were needed to support each theme (Merriam, 2009). Common themes were then coded, categorized, and analyzed. Commonalities from participants' responses ensured validity and reliability through triangulation were then evaluated (Creswell, 2014; Lodico et al., 2010; Merriam, 2009).

The researcher triangulated data through multiple sources to provide the validity of participants' experience for this live event (Creswell, 2014). The data included observations (field notes), interviews (face-to-face and focus groups), documents (lyrics, self-reported evaluations), and audio-visual materials (photos, videos, composition of sounds, live performances; Creswell, 2014; Saldana & Leavy, 2011). When compiled, each of these forms of data provided a different set of components needed to explore the effects of music on the participants' cognitive processes, emotions, and behavior, thereby responding to the three research questions.

Observations, documented in field notes (see Appendix D), provided factual descriptive evidence and assessments with no previous expectations by the researcher. The descriptive evidence was interpreted via recorded visual performances/videos, live performances, and verbal/non-verbal interactions with and among participants. The observation field notes were both unstructured and semi-structured (Creswell, 2014).

Interviews provided a semi-structured, face-to-face interactive conversation (Creswell, 2014). The interview process allowed participants an opportunity to explore their thoughts, feelings, and emotions following the instructional guide provided by the researcher. The initial questions at the beginning of each interview were posed to establish the tone of participant responses, followed by one to five sub-questions (Creswell, 2014). During each interview, participants had the opportunity to lead the interview based on their experiences (see Appendixes E, F, & G).

Documents (Creswell, 2014) provided the written lyrics in two formats. First, during the study, the listeners discussed the recorded music and the effect and indirect effect the listeners experienced from the lyrics and compositions (see Appendix E). The documents also provided a secondary source of the interpretation of lyrics, the meaning and conditions in which they were written, and the effect the musicians wanted participants to experience via the musician's interview (see Appendix F). Documents were distributed throughout the study for participants to self-report their thoughts, feelings, and emotions.

Audio-visual materials (Creswell, 2014) provided enhanced learning and observation through auditory (hearing), visual (seeing), and kinesthetic (feeling/touching) experiences throughout the study. These materials also provided insight into the participants' cognitive process of how they communicate with themselves and others to achieve specific and desirable outcomes. A handheld recorder was utilized for recording and a secondary recorder was available as needed.

Data Collection Strategies and Procedures

The Music & Lyrics by Design Study entailed five major components: background analysis, video analysis, lyrical analysis, interactive analysis, and wrap-up analysis. Data

collection was conducted during a live event on Sunday, March 17, 2019, from 6:00–9:30 p.m. PDT, which was combined with an ongoing event held in Los Angeles County. The prologue (pre-study) took approximately 10 minutes. The study took approximately 2 hours and 20 minutes to allow for maximum participation, discussion, interpretation, and artistic interaction. The jam session and open mic immersive experience took 1 hour and 20 minutes; non-participants joined the event. The finale (post-study) took approximately 10 minutes. This study was video recorded by the researcher's assistant from the pre-study to the post-study to document, examine, and interpret participants' impressions of their experiences, thoughts, and feelings.

Through each of the study's analysis components, research questions were explored and examined utilizing the following steps:

- Step 1: Participants engaged in a face-to-face personal interview and self-reported evaluation before the start of the study.
- Step 2: Participants listened to a set of recorded music and music videos; their interpretations were video recorded (observation/documents/audio-visual recording).
- Step 3: Directly following the video presentation, participants listened to two recorded songs and watched/listened to three live performances.
- Step 4: Participants individually self-reported their thoughts, feelings, and emotions and engaged interactively in a focus group with a panel of musicians analyzing lyrics via panelist interviews and listener personal reflection.
- Step 5: Participants participated in the jam session, open mic immersive experience, and discussion of shared experiences.
- Step 6: Participants engaged in a final self-reflective evaluation.

- Step 7: Upon conclusion of the lyrical component, the researcher summarized how the Johari Window and Cognitive Behavioral Model integrate music and mental processing, and music's effects on enhanced learning, applying highlights of the shared experiences.

Background Analysis

Upon arrival at the event, participants heard music playing overhead as they assembled in the lobby (see Appendix H). Each participant reviewed and signed an informed consent form as an acknowledgment and agreement to participate voluntarily in the Music & Lyrics by Design Study. Then they received an assigned code for anonymity (i.e., NM1, AM1, PM1, etc.) and one participant bracelet. Observations and audio-visual recordings commenced as participants were interviewed individually by the researcher on camera (see Appendix I). The researcher observed both verbal and non-verbal behavior and documented observations using field notes (see Appendix D). Other participants were escorted to their seats by research assistants to complete their background analysis forms (see Appendix G), enjoy the music, and review the menu, with the opportunity to purchase a light snack as they waited for the study to begin. Participants were asked to complete the background analysis with their assigned code; upon completion, they turned their forms over face down at the edge of the table for research assistants to collect and put in a confidential envelope.

Video Analysis

The study began with a brief welcome and overview of the purpose of the study, study procedures, potential risks and benefits, confidentiality, voluntary participation, researcher contact information, and rights of participants. Next, one music video (see Appendix H) were projected on the wall, and participant behaviors were video recorded and observed (See

Appendix D). Following each video, the researcher provided each participant with a Journey of Music Activity document (see Appendix J) identifying the name of the songs. The researcher directed the participants to fill out each form (seven minutes per activity) and upon completion, place it face down at the edge of the table for research assistants to collect and put in a confidential envelope for collection.

Lyrical Analysis

In this segment, participants listened to and analyzed two pre-recorded songs and three live performances, during which three artists performed original selections of their choosing (see Appendix H). Following each pre-recorded song, participants were given a lyrical analysis form to complete (see Appendix K) and place it face down at the edge of the table for research assistants to collect and put in a confidential envelope. After the completion of the live performances, there was an open group forum discussion in which participants engaged in an interactive discussion regarding the lyrics and music of the artists' chosen original selections.

The focus group interviews were conducted as semi-structured, with the flexibility to transform into an unstructured, open-ended format; focus groups were video recorded and transcribed for subsequent analysis (Creswell, 2014; Lodico et al., 2010). The interviews were interactive, analytical discussions on composition and lyric interpretation (see Appendix E) from the lived experiences of the participants. Participants were separated into two focus groups (i.e., musician/panelist and listener) in which the researcher facilitated the interactive panel discussion amongst groups (see Appendixes E and F). The listeners shared their expressive interpretation of the musician's lyrics and composition while the panelist provided the emotional insight and storyline behind their original selection. Pratt (as cited in Taylor & Paperte, 1958) suggested that

music sounds the way emotions feel and indirectly embodies and resembles the formal characteristics of inner dynamics.

Interactive Analysis

The last component of the study before the wrap-up was the jam session and open mic immersive experience. This portion offered a special invitation for participants to join the Los Angeles community in the venue's immersive experience monthly event, enabling participants to interact and submerge themselves into the community musical experience. Data were documented through observational field notes (See Appendix D) and video recordings.

Wrap-Up Analysis

During the wrap-up, similar to during the background analysis, music was played in the background (see Appendix H) as participants completed the wrap-up form (see Appendix L) about their Music & Lyrics by Design experience. Observations and video recordings made throughout the evening were completed by the research assistant and submitted to the researcher. The researcher summarized how theoretical frameworks (i.e., the Johari Window and Cognitive Behavioral Model) were able to use music to enhance mental processing as demonstrated during the educational segment and music's effect on enhanced learning with the tentative findings based on participant responses. A final thank you and acknowledgments from the researcher were made.

Tools/Instruments Used

Observation. Field notes were created to provide descriptive observation during live and recorded performances and interviews (see Appendix D). Within the observation field note template, space was provided to document the researcher's interpretation of naturally occurring narratives, behavioral scales, and video recording observations (Creswell, 2014, Lodico et al.,

2010). The researcher made observations of the verbal and nonverbal behavior of all participants, whether they were performing, listening to music, or interacting in any way throughout the study.

Interviews. Face-to-face interview questions (see Appendixes I, E, & F) were created to address participants' cognitive process, mental models, and the four quadrants of the Johari Window (see Appendix A). Interview questions were created for the video analysis (see Appendix J) and lyrical analysis (see Appendixes E, F, & K).

Documents. Individual, group, and musician interview forms (see Appendixes E, F, & I) were created to assess and identify participants' cognitive processes applying the Cognitive Behavioral Model. Five selections were preselected (i.e., pre-recorded and original works) for listening and performance based on the songs' narratives and the journey of emotions the music and lyrics evoked as identified and perceived by the researcher or performers. The challenge in this process was that the selected songs elicited different emotions from the participants than was previously identified by the researcher (pre-selected song) or performer (original song). Refer to the human subject considerations, presented subsequently, to understand how the researcher addressed this issue.

This study utilized four validity strategies (i.e., triangulate, member checking, detailed description, and bracketing), as indicated in Table 3, to gather participants' self-reported responses within each analysis component: background analysis, video analysis, lyrical analysis, interactive analysis, and wrap-up analysis. The aforementioned strategies were used to measure validity. The Music & Lyrics by Design Study demonstrated reliability in that it can be duplicated.

Human Subject Considerations

This study protected its human subject participants according to guidelines established by the Pepperdine University Institutional Review Board (IRB). IRB guidelines indicate that individuals participating in a research study in which data are collected through intervention, interaction, or the disclosure of private information must be protected under the United States Department of Health and Human Services (Pepperdine University, 2018). The research was conducted in accordance with Pepperdine University's IRB to ensure the protection and rights of participants. When contacting potential participants, recruitment scripts (see Appendix M) were utilized. Once the study was approved by the IRB, the researcher conducted the participant selection process, which included contacting all people who met the criteria to confirm eligibility using inclusion and exclusion criteria; to confirm participation date, time, and location; and to discuss and provide the informed consent forms (see Appendix N).

Site Approval

Before conducting any research, written permission to collect data was obtained utilizing Pepperdine University's Site Permission Letter (see Appendix O) from the owner of the venue who was the gatekeeper and provided site access (Creswell, 2008). The signed Permission Letter constituted the site's approval to conduct the research before IRB approval. The researcher sought Pepperdine University's IRB approval before recruitment and data collection began (see Appendix P).

Instruments

The researcher was the key instrument and therefore created data forms (see Appendices D, E, F, G, J, K, & L) to capture the raw data addressing the three research questions (Creswell, 2014). The data were examined and recorded utilizing a narrative format.

Recruitment Document

This study entailed purposeful sampling of 30 eligible participants who met the criteria of non-musicians, amateur musicians, and professional musicians between the ages of 18 and 90. A stratified purposeful sampling approach of the 30 solicited was conducted with nine participants. This sample size was stratified purposefully to encompass a minimum of three participants per sub-category to facilitate comparisons of their lived experiences.

The following steps were taken to make contact with the participants:

- Step 1: The researcher contacted the gatekeeper to review the event activities and logistics and confirm the date and time of the location for the live event.
- Step 2: The researcher contacted the gatekeeper from a local multi-entertainment entity to create a master list identifying known individuals who write, compose, or listen to music daily, review their eligibility, and narrow the search results from the master list using inclusion and exclusion criteria.
- Step 3: The researcher contacted all identified prospective participants who met the criteria on the list using the recruitment script (see Appendix M) in person, via phone, or via email. Once in contact with a prospective participant, the researcher confirmed eligibility using inclusion and exclusion criteria
- Step 4: Those who did not respond regarding their interest by March 15, 2019, were removed from the master list. Those who responded with interest remained on the list and were filtered into self-reported categories of non-musicians, amateur musicians, and professional musicians. Purposeful sampling was applied to engage nine participants.

- Step 5: The final sample of participants was contacted by phone to confirm their voluntary participation, as well as the date, time, and location of the live event. The researcher discussed and hand-delivered the informed consents forms for participants to sign and return at the live event.
- Step 6: One day before the study, participants received a reminder from the researcher that included a brief statement about the study and informed consent forms to sign and return.

Informed Consent

Informed consent forms (see Appendix N) were provided to all participants to review and sign before the study to minimize the risk and chance of harm. These forms provided structured, written details of the study and study procedures, based on which a potential participant agreed or declined to participate. Their signature served as a receipt of their acknowledgment and understanding of the details of the study as well as their written agreement to be recorded and participate (Pepperdine University, 2018).

The informed consent forms were written descriptions informing participants as to the contents and structure of the study, should they agree to participate. The consent forms included the following information: the purpose of the study, study procedures, potential risks and discomforts, potential benefits, confidentiality, participation and withdrawal, alternatives to full participation, the researcher's contact information, and the right of the participant. It stated that the study would be conducted in Los Angeles County, that the background analysis would take approximately 15 minutes, the study itself would take 2 hours and 30 minutes, and participation included a special invitation for participants to join the jam session and open mic immersive

experience after the study. Also, participants were informed that the questions asked would be related to their personal views on music and experience in music (Pepperdine University, 2018).

The adult consent form was provided to all participants to review and sign (see Appendix N). These signed informed consent forms were obtained as follows: (a) once approved by IRB, the researcher conducted the selection process and reviewed the informed consent forms in person and/or at the event. The researcher reviewed the consent forms with the participants before the beginning of the study on Saturday, March 17, 2019, at 6:00 pm; and (b) participants returned the informed consent forms to the researcher at the event in Los Angeles County.

The researcher took all reasonable measures to protect the confidentiality of the participants' records, and their identity will not be revealed in any publication that may result from this project. The confidentiality of their records was maintained in accordance with applicable state and federal laws. Under California law, there are exceptions to confidentiality, including suspicion of a child, elder, or dependent adult being abused, or if an individual discloses an intent to harm him/herself or others.

Other than the aforementioned exceptions, no mandated disclosures needed to be made. The researcher kept participants' records for this study anonymous as far as permitted by law. No proper nouns were shared in their recorded interview responses; therefore, no identifiable information was obtained in connection with this study. With the individual responses that were included in the research, pseudonyms were used to protect confidentiality and anonymity. The participant's names, addresses, or other identifiable information were not collected.

Potential Risks and Benefits

Participation in this study conferred minimal risk such as boredom or discomfort during the study event. According to Pepperdine University's IRB Manual (2018), minimal risk entails

the probability and extent to which discomfort or harm may occur will not be greater than what participants would encounter during their daily functioning.

There were no direct benefits to participants. However, the results from the study may contribute to advancement in the fields of arts and entertainment, mental health, and education.

Participation

All participation was voluntary, and participants were able to opt out at any time without penalty, or not participate at all. Participants were made aware of their rights and had the option to contact the researcher and Institutional Review Board (IRB) regarding questions or concerns about the study.

Confidentiality

Disclosed responses contained no identifiable information and therefore posed no risk to subjects. All identifiable participant information remained anonymous as a result of providing pseudonyms. Participants were coded using sub-categories and numbers (i.e., NM1, AM 1, PM 1, etc.) to protect their identities and maintain anonymity. Participant names were not attached to the responses, alleviating risk and rendering their information unidentifiable.

Data Storage

Data, signed consent forms, and audio-visual materials will be stored in a locked file cabinet at the researcher's home for a minimum of three years and a maximum of five years after the study has been completed, after which they will be destroyed.

The event was video recorded to capture the participants' exact responses via verbal and non-verbal communication. The interviews and activities during the live event were video recorded with a handheld recorder. A secondary handheld recorder was available, as needed. Video recordings are secured in a locked filing cabinet and will be destroyed via erasure.

Recordings were transcribed and will be deleted within a minimum of three years and maximum of five years. Electronic files are secured on a password-protected computer and will be destroyed via erasure. All hard copies are filed in a secured locked filing cabinet and will be destroyed via shredder.

Positionality

Using a qualitative research approach consciously or unconsciously enabled a field of awareness within or outside my Johari Window (see Appendix A), due to the researcher's perceptions and experiences as a clinician, educator, and former artist (Creswell, 2014). However, because of these experiences, I brought certain biases to this study. Although I made every effort possible to bring objectivity to the study, these biases had the potential to shape how I perceived, analyzed, and interpreted the data collected (Creswell, 2014). I view the integration of music and mental processing and its effect on enhanced learning as innate, that music as a whole is more significant than the sum of its parts, and that if we can understand music and its significance in our daily lives, we can understand ourselves and its effect on our mind, body, and metaphysical connection.

Data Analysis

Data were gathered from a variety of sources within each of the analysis components to address each of the research questions (see Table 4).

Table 4

Analysis Components and Research Questions

Background Analysis	**Video Analysis**	**Lyrical Analysis**	**Interactive Analysis**	**Wrap-Up Analysis**
Appendixes D, G, L	Appendixes D, J	Appendixes D, E, F, K	Appendixes D	Appendixes D, L
Question 1 Question 2 Question 3	Question 1 Question 2	Question 1 Question 2 Question 3	Question 2 Question 3	Question 1 Question 2 Question 3

The study was conducted in Los Angeles County, in a natural setting where members of the arts and entertainment community come together regularly to congregate, network, and socialize. The researcher was the key instrument in this qualitative study, collecting data through examining documents, observing behavior, and interviewing participants (Creswell, 2014, 2018). Multiple sources were utilized to collect the data (i.e., observations, interviews, documents, and audio-visual materials), which was subsequently examined, clustered into topics, and organized into major and minor themes (Creswell, 2014, 2018; Lodico et al., 2010). Inductively, a comprehensive set of emerging themes was constructed between the data provided and the theoretical integration addressed in Table 2. Deductively, data were reviewed as themes emerged to determine whether additional data and information were needed to support each theme. Common themes were coded, categorized, and analyzed, identifying the commonalities from participants' responses for validity and reliability.

Throughout this process, the researcher focused on the use of music to enhance cognitive processing and emotional regulation and music's affect on emotional and behavioral changes. The researcher reflected on her role in the study as well as her background as a clinician, educator, and former artist, which had the potential to shape both the direction of the study as well as the interpretations and themes explored (Creswell, 2014, 2018; Lodico et al., 2010).

Research was conducted combining participants' different perspectives and learning styles while identifying themes, fields of awareness (Johari Window), and a biopsychosocial framework.

Means to Ensure Study Validity

The researcher demonstrated that the design chosen was valid, credible, and meaningful by providing accurate data and showing its trustworthiness as a result of following the study's procedural guidelines, enabling the authentication of participant responses (Creswell, 2014). Four validity strategies were utilized as a means to ensure the study's validity (see Table 3). The strategies included: (a) *triangulating,* or collecting data from a variety of sources, and examining the findings to create a logical justification of themes; (b) *member checking* to follow up with participants regarding the accuracy of the data interpreted, (c) obtaining *detailed descriptions* of the findings in a narrative format to support the study's validity; and (d) *bracketing* to provide transparency of the researcher's personal experiences in the fields of arts and entertainment, mental health, and education that may have affected and influenced the interpretation of findings (Creswell, 2014; Lodico et al., 2010).

The study's procedural guidelines were as follows:

- Step 1: Participants engaged in a personal interview and completed a self-reported evaluation form prior to the start of the study;
- Step 2: Participants attended an event titled Music & Lyrics by Design that involved listening to a set of recorded music and music videos while recording their interpretations (observation/documents);
- Step 3: Directly following the video performance, participants listened to two recorded songs and watched/listened to three live performances;

- Step 4: Participants self-reported and engaged interactively in a forum discussion as a focus group with musicians, analyzing lyrics via interviews and personal reflection discussions;
- Step 5: Participants participated in the Music & Lyrics by Design wrap-up session featuring a jam session and open mic immersive experience and discussion of shared experiences;
- Step 6: Participants engaged in a final self-reflective evaluation;
- Step 7: Upon conclusion of the study, the researcher summarized how the Johari Window and Cognitive Behavioral Model integrate music and mental processing, and music's effects on enhanced learning, applying highlights of the shared experiences.

By providing a summary of the highlights to the participants reiterating the use of music to understand cognitive processing and emotional regulation, applying theoretical frameworks, the researcher enhances the learning of the participants. "When qualitative researchers provide detailed descriptions of the setting, for example, or offer many perspectives about a theme, the results become more realistic and richer. This procedure can add to the validity of the findings" (Creswell, 2014, p. 202). Riethmüller stated, "Throughout history, many theories concerning music—whether musical, philosophical, theological, sociological, or political—share the conviction that music moves or tangibly influences its audience in an ethical or moral way" (2008, p. 169).

As indicated in Chapter 1, the limitations of the study were as follows:

1. Due to the unique description of artists and the failure of participants to self-report their identified sub-category and age with candor based on their perception or

interpretation, results might not accurately reflect the opinions of all members of the included population.

2. Due to the assumptions, interpretations, and perceptions within the participants' mental models and Johari Window regarding the purpose or intended results, responses may not have been given candidly to reflect the opinions of all members of the included population.
3. Due to the participants' cognitive processes and interpretation of their lived experiences from the study, results may not be generalizable beyond the specific population from which the sample is drawn.
4. Due to the location of the venue, responses might only be indicative of the homogenous population of the participants.
5. Due to the study incorporating selectively chosen musical arrangements, genres, and songs, participants' musical interests were not previously identified; therefore responses may not be generalized beyond the specific participants' musical interest.
6. Due to the research being conducted as cross-sectional versus longitudinal study, responses cannot be generalized over a period of time.
7. Due to the study being conducted outside a traditional therapy session, responses cannot be generalized based on the phenomenological experience of a therapist.
8. Due to the study not including minors as participants, responses could not be obtained to analyze the generation gap of youth, young adults, and adults.

Plan for Reporting Findings

Printed data (i.e., field notes, interview notes, document analysis) will be stored in a locked file cabinet in the researcher's home and maintained and secured for up to 5 years. Digital forms (i.e., questionnaires) will be password protected for safety.

Chapter 4 provides the findings of the Music & Lyrics by Design study. It includes a comparative analysis of the results from previous research and discusses the findings related to the current study's research questions. Chapter 5 summarizes the findings, offer conclusions, and provide recommendations for future study.

Chapter 4: Results

> Music gives a soul to the universe, wings to the mind, flight to the imagination, and charm and gaiety to life and to everything.
>
> —Plato (CMUSE, 2015)

This study explored music as a lens to understand human behavior through an analysis of research participants' cognitive processing and emotional regulation. The application of a phenomenological approach allowed the research to consider to what extent music could be related to specific changes in emotions and physical reactions and its capacity to enhance learning. The study, conducted in Los Angeles County, considered the lived experiences, attitudes, behaviors, and emotions of participants who were identified as non-musicians, amateur musicians, and professional musicians. Multiple sources of data (including self-reported demographic data, on-site observations, and interview responses) were used to triangulate findings and validate connections between data points and the research questions (Creswell, 2014; Merriam, 2009).

The discussion of findings provides an overview of the process and effect of music as a transformational tool from the perspective of research participants. This chapter begins with a prologue (the data gathered prior to the beginning of the study), followed by a review the timeline over which data was gathered, describing the essence of the study, and ends with the finale (the data gathered at the conclusion of the study). It also explores respondents' view of the role of music in affecting behaviors, thoughts, and emotions. Finally, it concludes by considering intersections between music and mental processing as a tool to enhance both learning and performance.

Restatement of Research Questions

- What effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection?
- How does music tap into our thoughts and emotions thereby affecting our behavior?
- How does music soothe troubled minds and enhance learning and performance?

Chapter Overview

Chapter 4 presents the results of this study by describing how the data were prepared, reduced, and represented into the findings related to each research question (Creswell, 2014). In particular, the data were prepared by leveraging baseline data provided by respondents, analyzing transcripts, reducing data by coding and condensing responses into themes, and finally representing the data into figures, tables, and discussion points that were interpreted as results. The results were reviewed applying a similar process, exploring participants' verbal and nonverbal cues. Verbal cues included data generated by face-to-face interviews, focus group interviews, audio-video recordings, and self-reported written responses.

Conversely, nonverbal cues focused on observations of behavior and activities, facial expressions, and body language. Together these cues were described and documented by the researcher through the production of field notes using the template presented in Table 5 and Appendix D (Creswell, 2014). The template consisted of five different components explored in the study and how they might be related to the participants.

Table 5

Quality Control Lens Observational Field Notes

Intended Audience	Background	Lyrical	Video	Interactive	Wrap-Up
Clinician Lens	Smiles, laughter, curiosity, excitement	Curiosity, actively engaged, response vs. reactions	Bowed heads, tense face, doodling, shifting of body; withdrawn	Smiling, engaging, participating, relaxed,	Relaxed body, smiling, actively engaged
Musician Lens	Fingers snapping, hand clapping, toe tapping, and head nodding	Intensely listening for feedback, observing others behaviors, focused	Observing facial expressions of others, observation of others behaviors;	Fingers snapping, hand clapping, toe tapping, and head nodding, singing	Smiles of validation, nodding of head in acceptance/ appreciation
Educator Lens	Actively engaged, curious	Tapping/ twirling of pens, inquisitive, actively engaged	Curious, inquiries to seek to understand, frustrated	Actively engaged, inquiries to seek to understand, watching others mannerisms/ engagement	Nodding of heads, smiles, Focused, seek to gain information

The discussion that follows provides an overview of the process and effect of music as a transformational tool from the research participants' perspectives. This chapter also explores respondents' view of the role of music in affecting behaviors, thoughts, and emotions. Finally, the chapter concludes by considering intersections between music and mental processing as a tool to enhance both learning and performance.

Data Analysis Approach Applied

As described in Chapter 3, the researcher prepared, reduced, and represented the data using a process that relied upon generating insights, impressions, and intuition to generate

emergent codes and themes (Creswell, 2018). Building on the three different learning styles (auditory, visual, and kinesthetic), which are often associated with how listeners respond to music, the researcher divided the study into five components for analysis (Dunn, 2008; Kress, 2010). These categories included: (a) background, (b) video, (c) lyrical, (d) interactive, and (e) wrap-up (Creswell, 2014; Saldana & Leavy, 2011). The categories were used to organize surveys (see Appendixes E, F, G, J, K, & L), interviews (see Appendixes E & F), and observation protocol (see Appendix D) questions. The first step in the process of data collection and analysis was an exploration of the key baseline data (a general baseline for assessment) consisting of participants' interpretation of and reflection on their description of initial questions of the significance of music, feelings, and transformational healing. This data provided a foundation for the researcher with the tone of participant responses, impression of their overall depth, and general overview of their emotional state prior to the study, addressing the three research questions. Upon arrival to the study, the researcher began by confirming the key details and the role of each participant.

Baseline Data Collection

Prior to the day of data collection, 16 participants confirmed attendance at the study, however of the 16, seven were automatically eliminated from the study due to late arrival, lack of attendance, or multiple incomplete responses to the surveys. As a result, there was a total sample of nine participants, including both non-musicians and professional musicians. It is important to note that although three participants who self-identified as amateur musicians confirmed that they would attend, they were absent and therefore excluded from the study.

Data Preparation

Prior to data collection, participant response data forms (see Appendix E, H, I, J, K, & L) were developed to align research questions with each analysis component to embed individual participant responses. The researcher transcribed the audio-video recordings, reread participant data responses multiple times adding notations (i.e., comments, observations, and queries) next to the text in the margins, and applied coded descriptive themes systematically. Before the study, participants responded to initial questions that provided the content for the first round of coding. Open coding initially began the process and then expanded beyond the descriptive coding. It included the interpretation of and reflection on their description of the significance of music, feelings, and transformational healing (see Prologue: Background Analysis). This established the first round of coding through self-generated descriptions, providing the researcher with the tone of participant responses, impression of their overall depth, and baseline of exploration that encompassed a general overview of their emotional state prior to the study, addressing the three research questions (Creswell, 2014; Glesne, 2011; Lodico et al., 2010; Merriam, 2009).

The data were explored, reviewed, and analyzed multiple times to provide a rich, in-depth description of the results from the lens of the clinician, musician, and educator (Creswell, 2014, 2018; Lodico et al., 2010; Merriam, 2009). The researcher analyzed and cross-checked the data looking for patterns (Creswell, 2014; Merriam, 2009).

Data Reduction

The data were then systematically clustered into topics, creating identifiable themes per question within each analysis component until full coding was complete. Data were explored recognizing different emergent themes and patterns and confirming that the identified themes were connected to the qualitative research questions (Creswell, 2014; Glesne, 2011; Merriam,

2009). Although counting numbers (e.g., the mean and standard deviation), also known as statistics, from which the sample population was drawn was not a primary goal for this study, the researcher utilized statistics with some data to support selective findings of reliability and validity while discerning themes and patterns to make comparisons and build theoretical explanations (Glesne, 2011; Lodico et al., 2010).

An analytical group discussion was conducted with nine subjects whom the researcher divided into two groups of listeners and performers. Of the nine subjects, six participated as listeners responding to eight interview questions via an interactive discussion. Three subjects participated as performers on the panel and responded to ten interview questions via an interactive discussion. A total of six surveys per participant were disseminated throughout the study and returned, with a total overall response rate of 96%.

Prologue

The study began with a series of questions for the participants providing the researcher a baseline for exploration. It established the first round of coding and provided the researcher the tone of participant responses and general overview of their emotional state prior to the study.

Data Representation

Data were explored representing the clinical, musician, and educator lens from three fields of study (arts & entertainment, mental health, and education). This juxtaposition and categorization demonstrate the distinctions between these groups and also highlights the integration between the fields.

Background Analysis

Before the study, participants responded to four questions addressing music, feelings, and transformational healing. Based on researcher observation and self-reported data, there were three non-musicians (33% female, 67% male) and six professional musicians (83% males, 17% female). Of the nine participants, 67% were adults, and 33% were young adults. As previously indicated, this process offered the researcher the tone of participant responses, impression of their overall depth, and baseline of exploration that encompassed an overview of their emotional state prior to the study through the triangulation of documents, observational notes, and audio-visual recording addressing the three research questions (Creswell, 2014; Glesne, 2011; Lodico et al., 2010; Merriam, 2009; Saldana & Leavy, 2011).

Clinical lens. To understand the clinical lens it is useful to contextualize these findings with the larger field. Merriam (2009) stated that observable behaviors could be subtle factors (i.e., informal and planned activities, nonverbal communication, symbolic and connotative meanings of words, and unobtrusive measures such as physical clues). Consistent with Merriam's research, identifying how the participants self-reported their feelings and emotions prior to the study provided a baseline of their emotional state. Fifty-six expressed a combination of feeling blessed and grateful, 22% reported a combination of feeling stressed and overwhelmed, and the remaining 22% self-reported feeling relaxed or fantastic. Participants' observable behaviors embodied happiness as demonstrated by smiling, laughter, and social interactions, and stress as demonstrated by appearing tense and isolated with minimal social interactions.

Musician lens. Identifying what captured the participants' attention when listening to music within their natural environment provided a baseline to explore the components of music

that affect and influence them before the study. The data collected indicated that 38% of participants identified the melody as capturing their attention whereas 25% indicated that instrumentation captured their attention. The remaining participants (37%) identified sound/rhythm, beat and the feeling the song provides as their focus. One participant stated, "It is the music that gets me excited about the lyrics," whereas another referred to the lyrics and storyline. Observable behaviors while listening to the pre-recorded music before the study included the tapping of feet, swaying of the body, bopping of the head, and the drumming of pens. Others sang along to the lyrics while bobbing their heads and looking around (Merriam, 2009).

Educator lens. Identifying participants' self-reflection on the effects music has on their transformational healing before the study led to the identification of common themes. The results were uniquely different among participants and identified through the components of transformational healing: mind, body, and spirit.

The researcher, as the primary data-gathering instrument, defined the component of the mind as representing a participant's daily life that incorporated choices made, lessons learned and taught, and experiences (Creswell, 2014). The common theme identified from the data was participants' thoughts, ideas, and experiences in which music provides transformation of thoughts, mood, and changes in perception of a particular reality. Consistent with qualitative research, the researcher, as the primary instrument, defined the component of the body as a participant's personal center and foundation from which they are grounded and where they continue to stand despite the pitfalls they may have experienced (Creswell, 2014). The common theme identified from the data was movement, desiring how music shifts their behavior from non-movement to wanting and desiring to move, thereby increasing joy. Last, the researcher

defined spirit as the participant's whole persona, incorporating his or her strength, attitude, desire, and determination (Creswell, 2014). The common theme identified from the data was that music was the ultimate healer. Participants described this healing capacity as "calming to their mind," "relaxing," "being able to decompress," "putting their spirit at ease," "finding peace during stress," "positivity," and "uplifting to the mind and spirit."

As indicated previously, common themes emerged throughout the background analysis; however, some of the participants' self-reflective statements during the prologue were profound in guiding the researcher's understanding of the essence of participants' natural lived experience with music. This helped the researcher create a framework of relational categories by recognizing patterns and clumping the data codes (Glesne, 2011). Some of the participants' statements demonstrated the significance of the essence of the integration of music and mental processing that the study explored:

- "Music narrates my life and is essential to providing me with the feelings I need to remain or return to a place of peace."
- "Music tells me how to feel; it grabs me from the soul; lyrics are the cherry on top."
- "Words lie; vocals can be trained; music can be learned, but feelings cannot be faked."
- "Music is my root."

Through these participants' self-reflective statements and the lens of the clinician, musician, and educator, the initial round of coding explored the biopsychosocial components of the integration of music, mental processing, and education.

Music by Definition

The end of the prologue encompassed interviews and surveys asking participants to complete the following statement: "Music to me is…" The common theme among the participants was "life," with 50% of the participants reflecting on the psychological aspects of life. Responses reflected music as a "spiritual journey," "mood enhancer," "escape from reality," and "as necessary as the air I breathe." As a feeling, participants defined music as a "vibration of the heart and soul," and "a compilation of rhythms, melodies, harmonies, forms, and instruments." One participant indicated, "If it doesn't give you a feeling, it isn't music."

Through the background analysis, the researcher was able to construct categories and themes that captured the baseline for recurring patterns that cut across the data, addressed the research questions, and supported the analysis of the clinician, musician, and educator (Merriam, 2009).

Study Analysis Findings

This study incorporated components of each learning style. The lyrical analysis focused on the auditory and visual learner, the video analysis focused on the visual learner, and the interactive analysis focused on the kinesthetic learner. Throughout the event, learning styles overlapped and were interconnected through the participant's shared lived experiences as well as through triangulation in the gathering of data. Triangulation includes using multiple sources of data to compare and cross-check data through observations, interviews, documents, and audio-visual recordings (Creswell, 2014; Merriam, 2009; Saldana & Leavy, 2011).

Lyrical Analysis Part 1

Participants reflected on two pre-recorded songs to explore and identify their thoughts and feelings when listening to the songs, their relationship to the lyrics, and how the music and

lyrics captured their attention. This portion of the study also captured the participants' self-reflective statements of what they were unaware of before listening to the music and engaging in the activities through the triangulation of documents, observational notes, and audio-visual recording (Creswell, 2014; Merriam, 2009; Saldana & Leavy, 2011). This process addressed the research question, how does music tap into our thoughts and emotions thereby affecting our behavior?

Clinical lens. Within this analysis, participants described how music affected their thoughts, feelings, and emotions. The common themes identified were memories in the first song and happiness in the second song. One participant stated, "The song provided a more open space to consider my thoughts and feelings." This data supported the biopsychosocial framework in respect of a clinician assessing the whole person beyond a diagnosis, an illness, or one specific component of a person by utilizing music and as an adjunct tool for the participant to safely explore their thoughts and feelings of the music/lyrics, interpret personal parallels, and self reflect on their findings. According to Smith College (as cited in Berzoff et al., 2016), clinical social work identifies and assesses the complexities of individuals (i.e., strengths and limitations, systems of meaning, resilience, vulnerabilities, etc.). Observable clinical behaviors included mood changes as evidenced by facial expressions, eye contact, and a shift in body language.

Musician lens. Table 6 describes participants' relationship to the lyrics and how the lyrics and music captured their attention as they listened to the pre-recorded songs.

Table 6

Participants Relationship to Music and Lyrics

Purpose of Questions	**Theme: Song 1 "Use Me" by Bill Withers**	**Theme: Song 2 "Turn Your Love Around" by George Benson**
Relationship to Lyrics	Memories; Personal relationships	Personal experiences
How lyrics captured participants' attention	Application to life	Hook; lyrics
How music captured participants' attention	Rhythm; melody; bassline	Bassline; tempo; energy; melody

The data described the significance of lyrics applying to life circumstances to ignite listeners' personal experiences or memory to capture their attention. In contrast, from the melody to the rhythm, the composition provided the energy and vibration to connect to the listener's inner compass. A participant described his/her listening experience to "Use Me" by Bill Withers as "memories of the past and snapshots of the present."

Educator lens. No common themes were identified in response to the first pre-recorded song. Forty-four percent of participants reported no identifiable thoughts or views on life they were unaware of before listening, discussing, and engaging in the activity. In the second pre-recorded song, the common theme identified was the importance of lyrics, love, and that individually the participants have the power. Eleven percent of participants reported no identifiable thoughts or views on life of which they had previously been unaware.

In both pre-recorded songs, it can be assumed participants resided within quadrant III (the hidden area) or quadrant IV (the unknown potential area) of their Johari windows. The non-identified universal themes indicated topics of a sensitive nature that was to remain private (i.e., personal relationships and memories) and were not to be revealed to others (quadrant III). In contrast, the inability for participants to identify their thoughts or views of which participants

were unaware of, prior to the study, can be assumed to be outside their field of awareness thereby residing within the window of undiscovered territory (quadrant IV).

Video Analysis

Participants watched Logic the Rapper's "1-800-273-8255" music video to explore the extent to which the visual mode would have a different impact than the audio mode. Four questions explored participants' thoughts, feelings (influenced by external stimuli via personal experiences beliefs, memories, and thoughts), and emotions (internal responses of conscious thoughts, reasoning, and decision making) before the video; what emotions the video evoked; their interpretation of the music and lyrics while watching the video; and the mood or behavior that changed as a result of the video. This process captured participants' self-reflective statements through the triangulation of documents, observational notes, and audio-visual recording (Creswell, 2014; Merriam, 2009; Saldana & Leavy, 2011). This process addressed the following research questions:

- How does music tap into our thoughts and emotions thereby affecting our behavior?
- How does music soothe troubled minds and enhance learning and performance?

Clinical lens. The common theme of participants' thoughts, feelings, and emotions before the video was happiness, with which 56% identified. Happiness was encompassing sub-categories of relaxed, content, and positivity. Eighty-nine percent of participants reported that the video evoked sadness, encompassing sub-categories of helplessness, empathy, anger, and sorrow. One participant stated that the video evoked "hopefulness. That things get tough sometimes but I'm not alone, and there is a light at the end of the tunnel." Another stated, "The end reminded me that there is hope and the lyrics reminded me that I'm not alone, and that

makes me happy." Observable behaviors were shifts in facial expressions, saddening of the eyes, and body language shifting from open to closed.

Musician lens. The common theme of the participants' interpretation of the music and lyrics was how the video brought the lyrics to life and actively brought awareness of life's struggles and emotions. Artistically, the videos provided shifts in mood from darkness and struggle to a rollercoaster of emotions through the visual storyline. A participant stated:

> The video brought the lyrics to life and helped to understand how one could be confused." Another indicated, "At first it seemed really sad with both the music and lyrics combined, but as the song continued and the lyrics changed, the music and lyrics seemed/felt more uplifting. The music didn't really change, but the change in lyrics and video made it sound a lot happier. Another participant described the experience by saying, "It didn't matter what the lyrics said; it was the visual that told us what the story was about."

Educator lens. One hundred percent of participants identified a change in mood or behavior as a result of watching the video. The common themes identified were sad, somber, and a shift from sad to hopeful. It can be assumed that quadrant I (the open area) was the predominant field of awareness, as evidenced by participants expressing their behavior and motivation openly about suicide, the LGBT population, and grief.

Lyrical Analysis Panel Discussion

The panel discussion involved an in-depth, interactive analytical interview and discussion between participants and three artists who performed original selections. Following their performance, participants processed the experience and engaged in an in-depth discussion of their thoughts, feelings, and emotions on the musicians' lyrics. Performers responded to the

researcher and participants' questions and responses. This process captured participants' self-reflective statements through the triangulation of interviews, observational notes, and audio-visual recording (Creswell, 2014; Merriam, 2009; Saldana & Leavy, 2011) and addressed the study's three research questions.

Clinical lens. Through the interactive, in-depth interpretation of the performers' original selections, participants analyzed and processed the storyline, describing visual graphic images and details whereas others expressed their interpretation through the parallels of real-life challenges. Applying the Cognitive Behavioral Model, the situation (story line) did not change. However, it was the thoughts the participants said to themselves regarding the storyline that affected their emotions and thereby affected their behavior, such as "the music transforms you to a different place, and you can put an image in your mind."

Musician lens. Performers appeared curious and intense as participants interpreted their lyrics as evidenced by their body language of leaning forward, showing focus and concentration. Following the listeners' interpretation, a rich discussion commenced in which the performers were engaged in a series of questions (see Appendix G). One performer expressed that if they were to unmask themselves, they would want their listeners to know "I don't make my music for me. I think about what people need." When asked whether the participants' reaction was what they were looking for regarding their original selection, another performer responded, "As long as I'm writing from my heart that's all I got to write. If I listen to what people say, then I will go home and change it, and I don't want to change it. I want to write from my heart."

Educator lens. The researcher observed participant reactions to the different modes of art and learning styles and deciphered the differences with the blending of modes and styles. As participants were taught the Cognitive Behavioral Model and Johari Window Model

incorporating the biopsychosocial framework, two subjects volunteered to participate in the interactive face-to face learning process responding to open-ended questions while the remaining seven observed. Some observers yelled out responses asked of the subject "he felt anxious" to help the subject who struggled to identify their thoughts and emotions, to a situation. The researcher responded by teaching the concept of seeking approval from others and the need for others to want to help and describe what someone else is thinking or feeling. When the participants understood the concept of the cognitive behavioral process as it related to lyrics, music, and life, participants yelled out "you're right," "nice," "common' teach," and "teach teacher" as their confirmation for understanding.

Interactive Analysis

The immersive experience at the local multi-entertainment entity featured an open mic and jam session. Community members joined the participants to explore the essence of the lived experience through music. This analysis captured participants' immersive experience through the triangulation of observational notes, interviews, and audio-visual recording (Creswell, 2014, Merriam, 2009; Saldana & Leavy, 2011), addressing all three of this study's research questions.

Clinical lens. There was an observable blend of the biological, psychological, and social components within this essence of the Music & Lyrics by Design study. Biologically, the researcher observed participants' physical traits of body movement and the acceptance of the composition and lyrics as evidenced by fight-or-flight behavior (confront or avoid the stimulus), verbal communication (singing and positive commentary), and nonverbal communication (clapping of hands, swaying to the rhythm, bopping of head, tapping of feet, and smiles).

Psychologically, the researcher observed participants' resistance to perform as evidenced by tense facial expressions, anxiety, stress, and low self-esteem. Observable traits included

minimal eye contact, dialogue entailing fear, and withdrawn behavior. Other participants demonstrated excitement, happiness, and high self-esteem, as evidenced by laughing, smiling, interacting with the audience, and confidence on stage.

Socially, the researcher observed participants engaging in social interactions while others were in isolation until the music began. Participants who self-reported social anxiety and isolation demonstrated a shift in behavior once the music started as evidenced by smiling, body movements, and interacting with others.

Musician lens. Participants engaged actively, whether through performance or as listeners. Musicians interacted with others following the performers' segment, asking where they can be followed either via social media or live and providing feedback on their level of interest in the performance. All levels and ages of performers were supported through verbal and nonverbal praise or acknowledgment. Participant visibly demonstrated respect for each other's artistic gifts and craft via fingers snapping, hand clapping, toe tapping, and head nodding.

Educator lens. The researcher observed the interaction and communication among the participants both on stage and off. The areas of participants' Johari Windows were evident through verbal and nonverbal communication.

Finale

The *umoja* (unity) circle (part of the Immersive experience and considered an adjunct to the study) and final six questions concluded the study. The wrap-up analysis including the umoja circle captured the participants' final descriptions and meanings regarding the effects and influence of music on their thoughts, emotions, and behavior and their self-reflective statements through the triangulation of observational notes, interviews, and audio-visual recording

(Creswell, 2014; Merriam, 2009; Saldana & Leavy, 2011). This process addressed the study's three research questions.

Umoja Circle

Participants formed a circle around the perimeter, holding hands with community members who joined the open mic/Immersive experience segment and shared the essence of their Music & Lyrics by Design experience. Members of the circle shared what the experience has helped them with, anything positive, and anything they learned from the experience. Following each shared experience, in unison participants said *ase*, a West African philosophical concept that describes the power to make things happen and produce change. Table 7 provides the essence of the experiences described by members of the circle from the lens most relevant to the researcher's quality control lens observational field notes: the clinician, musician, and educator. The integration of music and mental processing and its effect on enhanced learning is demonstrated through the overlapping of the direct quotes within the fields of study.

Wrap-Up Analysis

Themes emerged throughout the remaining six interview questions, which will be addressed individually in relation to each research question.

Research question 1. What effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection? Two main themes emerged: solace and diversion (see Table 8).

Table 7

Umoja Circle

Lens	Quotes
Clinical Lens	• "Peace, tranquility, space was generated by the environment that I was in..." • "Positive energy, encouragement…" • "Everywhere I look it brings me joy, community, and happiness" • "I experienced beauty, love, creativity, beautiful talent, self-esteem, self-love" • "It was powerful, uplifting, self-love"
Musician Lens	• "A place where we can all breathe in the safe space, good vibration and frequency to release artistic expression and self-love" • "Experienced freedom in this safe space. Music is my love and I experienced brotherhood and sisterhood" • "I experienced community" • "Being able to share our artistic talent and resources" • "Helped me remember how music is a universal language because we don't get to speak the same language but the beat and the music is in everybody" • "Without music there is no me… This space provided for artists, is important, people won't forget that . . . connection" • "Appreciate the talent, the music, it's so soulful, and keeps me at peace"
Educator Lens	• "… There was an open learning circle that allowed me to be open minded" • "… Just letting go of fear and not allowing your thoughts to stop you from your goals. That was big for me." • "Experienced the depth and breath of vibration and unity. And how that frequency translates to our whole body. So when I create things … that vibration can go out to the whole world. It shows me that what I am doing and what I am thinking about has an effect on the atmosphere" • "The holding of hands reminds me of the benediction at church—love" • "I feel encouragement and inspired . . . as a new poet I can now express without fear of judgment" • "The universe is infinite so matter where you stand in it, you are the center of it…"

Table 8

Music and Transformational Healing

Participants	Emotional Regulation	Quote
Participant	Revival	"To uplift my mind and spirit, I listen to conscious Hip Hop & Soul music. Music uplifts the soul and the universe."
Participant	Solace	"The melody and lyrics transform my thoughts and mood."
Participant	Solace	"Music makes me happy in the mind, body, and spirit. It calms my mind and allows me to sort of decompress. It also makes me want to move and movement brings me joy. Music puts my spirit at ease and makes me feel more positive. It heals me emotionally."
Participant	Diversion	"Music helps me attain peace in stressful states quicker than if it were not present."
Participant	Solace	"It is the ultimate healer. Music narrates my life and is essential to providing me with the feelings I need to remain or return to a place of peace."
Participant	Entertainment	"Very positive effect all the way around."
Participant	Revival	"It builds me up. If I listen to the right music, I leave feeling joyous, secure, and loved."
Participant	Diversion	"Music is my root. Music is second nature to me. It calms me. Relaxes me."
Participant	Solace	"No matter what I am feeling, there is a song/artist that captures the feeling and puts me at ease or lifts my spirits. Music takes you on an emotional journey, because it makes you feel something whether you relate to it or not."

Theme 1: Solace. Throughout the study, solace was the main theme that emerged because participants sought to find emotional validation and support through music and lyrics when they felt down. Whether through the transformation of their thoughts and emotions, a change in their behavior, or providing the platform for encouragement and support, there was a consistent pattern that music was the ultimate vehicle for transformational healing.

Theme 2: Diversion. The second theme that emerged regarding this research question was diversion. Throughout the study participants described listening to music and lyrics as a

distraction from worries and stress; in this sense, music could serve as a self-calming mechanism or a tool to escape into a relaxing state.

Research question 2. How does music tap into our thoughts and emotions thereby affecting our behavior? Three themes emerged: biological, psychological, and social (see Table 9).

Table 9

Music Affecting Thoughts, Emotions, and Behavior

Participants	Quote
Participant	**Biological:** "Music gives me energy." **Psychological:** "Music puts me in a space of hope and encouragement." **Social:** "Music inspires me to associate with positive people."
Participant	**Biological:** "Music has the ability to calm me or uplift my spirit and provide energy." **Psychological:** "Music allows me to calm my thoughts and effectively process the stimuli." **Social:** "Music sets my mood for the day an allows my inner space to process my thoughts."
Participant	**Biological:** "Slower music calms me and can help me sleep or ease my pain and upbeat music gives me energy and pumps me up." **Psychological:** "Music allows me to learn a lot about myself and how I'm feeling or what I want. It can help me see the upside of an emotionally strenuous situation or it can allow me to just feel whatever it is I'm feeling and let it out." **Social:** "Music puts me in a more positive mood and it makes me happier which allows me to try harder in every aspect of my daily life."

(continued)

Participants	Quote
Participant	**Biological:** "Because we are majority water and music is a vibration, music changes the physical chemistry of the body, thus having very apparent physical effects. For me these effects include relaxed or tense muscle reaction, bodily movement, sleep, and approved circulation." **Psychological:** "Music directly affects my emotional state and influences joy, sadness, excitement, or calm. I often use music as a motivator in my daily activities." **Social:** "I listen to music that is aspirational and reinforces my beliefs. I do my best to avoid music that contradicts my values. Most of the social interactions that I have involve music so it is also a connecting agent in the various communities I am involved in."
Participant	**Biological:** "Music helps me sleep soundly" **Psychological:** "It makes me happy when sad, and it can make a rainy day as beautiful as a sunny day." **Social:** "It allows me to overcome social anxieties because on my journey to be a musician, its forced me to be the best version of myself."
Participant	**Biological:** "Music puts me in alignment and sets me free." **Psychological:** "Music typically calms me. It can bring up emotions I've tried to repress/suppress." **Social:** "I am pretty anti-social. When music is present, I will be somewhat social."
Participant	**Biological:** "Sleep. It can either help wake me up or help put me to sleep. When I'm having trouble sleeping, turning music on usually helps me fall asleep pretty quickly, as well as vice versa, when I'm having trouble staying awake, turning on fun upbeat music will help wake me up." **Psychological:** "Music can either be the cause or the effect of my mood. No matter what mood I'm in, music can be helpful because it will either act as an up lifter, a distraction, or a shoulder to cry on" **Social:** "It brings me closer to so many people. Not only do people make connections through mutual interests in certain songs/artists but writing, producing, composing, etc."

Theme 1: Biological. Participants described the effect or influence music has their physical development. They incorporated sub-categories of sleep and energy, which were the predominant factors.

Theme 2: Psychological. Participants described the effect or influence music has on their emotions, personality, and attitude. They described how music has affected or influenced how they think, cope, and make daily decisions. Participants discussed the influence music has on their emotions, with the ability to make them feel happy, calm, or sad.

Theme 3: Social. Participants described how music affected or influenced their lifestyle, behavior, and daily practices. They described music as the catalyst during social interactions and the connecting agent for establishing mutual interests.

Research question 3. How does music soothe troubled minds and enhance learning and performance? One theme emerged: awareness. Participants reported having increased awareness of their views on music and its impact on their thoughts and moods (see Table 10). Throughout the study, participants expressed music providing an increased awareness of the struggles of the world (i.e., suicide, LGBT issues, relationships, race, etc.), the experiences and thoughts of others' pain, and the triumphs and tribulations of relationships.

Table 10

Music Enhancing Learning and Performance

Participants	Quote
Participant	"I always dive deep into the lyrics and music but this experience was a capstone to my views on music."
Participant	"Gave me a greater appreciation for lyrics and made me realize how important it is to slow down and really listen to what the artist is trying to say."

(continued)

Participants	Quote
Participant	"It reassured me if the power of music and lyrical content but it did not change my interpretation."
Participant	"Makes me want to really listen to the lyrics more and think of other folks more."
Participant	"Now rather than just listening to songs and the lyrics, I'm going to start watching the music videos also in order to see how it changes my emotional impact/connection to the song."

Researcher Reflection

Throughout the study, the researcher documented observations via field notes and the audio-video recordings capturing the essence of the participants' lived experience. Following the study, each analytical component (background, lyrical, video, interactive, wrap-up) was transcribed separately, including the audio-video recording, identifying multiple descriptive statements within the narrative (Creswell, 2014; Glesne, 2011; Lodico et al., 2010; Merriam, 2009). The highlighted themes were identified in response to each question (see Table 11).

Table 11

Research Question Theme Identifiers

Research Questions	Themes
Question 1: What effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection?	Ultimate healing, transformation of thought, mood, and changes in perception and behavior; solace, diversion
Question 2: How does music tap into our thoughts and emotions thereby affecting our behavior?	Memories, personal experiences, identification of feelings/emotions, parallels to life, acceptance of the composition and lyrics, social interactions
Question 3: How does music soothe troubled minds and enhance learning and performance?	Bassline, tempo, melody, hook, lyrics, an awareness of life's struggles and emotions

The researcher identified commonsense understandings throughout the study focused on the essence of the lived experience while reading between the lines (Kvale, 1983). By

documenting each participant's experience, verbal descriptions were highlighted, clustered into topics, and patterns, organized into major and minor themes, and condensed into a narrative form to summarize findings regarding the essence of the lived experience (Creswell, 2014, Glesne, 2011; Lodico et al., 2010; Merriam, 2009).

Summary

Chapter 4 discussed the findings of the Music & Lyrics by Design Study. It provided a comparative analysis of the results through the lens of the clinician, musician, and educator, addressing each research question by analyzing the data and identifying the themes within each component. Chapter 5 summarizes the results, draw conclusions connecting the results to the literature and theoretical frameworks, and discuss the implications and recommendations for future research.

Chapter 5: Discussion

Music begins where the possibilities of language end.

—Jean Sibelius, (Goodizen, n.d)

Introduction

This study explored the effect of music as a lens to understand human behavior through an analysis of subjects' cognitive processing and emotional regulation. This exploration offers insights into emotional and physical changes, providing insight into how musicians, clinicians, and educators operationalize the concept of enhanced learning. In particular, this chapter discusses the findings, the implications of this work for the field at large, and recommendations for future research. This discussion of the findings is organized around how and what ways music was described by respondents and the qualities that represented the transformation of the mind, body, and metaphysical connection. The discussion of the implications of this work is organized around findings that tap into the thoughts and emotions of the research subjects and ways in which researchers might further explore this subject among larger and more diverse audiences. Finally, this chapter concludes by suggesting how this research might be expanded to further explore the cathartic quality of music, especially in enhancing learning and performance.

The previous chapters explored the relationship between music and human behavior from both a conceptual and practical perspective. This connection has implications across many fields including arts and entertainment, mental health, and education (Gold, Frank et al., 2013; Gold, Rolvsjord, Mössler, & Stige, 2013; Hutchison, 2013; Senge, 2006). It is especially compelling that this study demonstrates how subjects can identify cognitive processes and emotions evoked by and through music. Three key themes evolved: (a) music is transformational, (b) music has

important connections to the regulation of cognitive processing and emotional regulation, and (c) music and lyrics provide an awareness of self and others.

Discussion of Findings

Music and Transformational Healing

This study found that the power of music is a healing agent for transformation. This result was consistent with the assertions of Degmečić et al. (2005), Gardner (1944), Madison (2011), Strick et al. (2015), and Yehuda (2011), who found that music has had a significant effect on transformational healing of both human behavior and society for centuries. This study found that music can transform an individual's thoughts, perceptions, and mood, thereby affecting his/her behavior.

Moreover, through the metaphysical connection of music, participants described the vibration and frequency of music as having the power to translate to the heart and soul, thereby identifying it as the healing agent. This result was consistent with the findings of Brooks (as cited in Degmečić et al., 2005), who stated that music had been understood as a healing influence since the writings of Aristotle and Plato. This result was also consistent with the findings of Botstein (2004), Campbell (1991), Lerdahl (2003), Madison (2011), and Shaw-Miller (2011), who stated that music reaches to the core of the human spirit across generations, cultures, and societal norms.

The research found that the power of music creates an internal awareness of self and external awareness of others and can affect our perceptions of both others and situations. The Johari Window offered this study a unique lens through which to investigate the awareness of self and others through the open, closed, blind, and unknown potential windows. It is within our fields of awareness that music can openly transform our behavior and motivation, elicit an

external awareness of personal and social injustices that were previously outside our field of awareness, create a safe space to unmask the noise within and step outside our private thoughts to openly express them, and embrace unknown gifts and opportunities seeking to emerge. This result was consistent with assertions by Luft (1970), who stated that the internal and external fields of awareness are windows into ourselves, and a change in one quadrant affects all other quadrants.

This study found that music has the power to affect our internal and external thoughts, thereby enhancing interpersonal relations, and identifying the dominant window from which our field of awareness resides on specified topics (i.e., race, suicide, LGBT, grief/loss, etc.). This result was consistent with the findings of Jensen (2008), who stated that music is an adjunct to the learning process and a valuable tool for the integration of cognitive processing across both hemispheres of the brain.

The study found that the power of music creates a safe space and platform to give voice to the voiceless and transform a closed mind to an open mind. The musician composes and writes the musical antidote to transform the mind, body, and metaphysical connection, and visual, auditory, or kinesthetic learning through music and lyrics have the properties needed for mood induction and stabilization, as well as emotional regulation. This result was consistent with those of Pierce (2010), who found musicians who struggled with injuries and other physical and mental health issues in secrecy demonstrated the effect of music as they continued to compose and create, allowing their musicianship to be their platform of healing.

This study addressed how and what effect, if any, does music have on transformational healing of the mind, body, and metaphysical connection. Data showed that the predominant responses were connected to quadrant III of the Johari Window. Participants were cautious

about self-disclosing thoughts or emotions on topics of a sensitive nature within the panel discussion on original and pre-recorded lyrics related to relationships, homosexuality, and race. Although the lyrics were thought-provoking, it was the vibration and frequency of the music that provided a safe platform and challenged the listeners to disclose their thoughts and emotions with strangers during an interactive live panel discussion. Prior to this point, the listeners may not have chosen to express their thoughts and emotions in such an open forum.

Music and Cognitive Processing/Emotional Regulation

This study found that music significantly affects thoughts, feelings, and emotions from each component of the biopsychosocial framework. It provides an understanding of human behavior, interpersonal relationships, and the social structures affecting our biological, psychological, and social aspects. The result was consistent with those obtained by Strick et al. (2015), who stated that music has a significant influence on an individual's mood, physiological reactions, and behavior.

Biologically, this study found significant traits of music affecting body movement through verbal and nonverbal communication. It was also found music can be a stimulus that can produce an automatic physiological reaction igniting a fight-or-flight response (to confront or avoid the stimulus) due to emotions such as social anxiety or stress (Hutchison, 2013). This result was consistent with the findings of Sloboda (as cited in Yehuda, 2011), who found that people use music to alter their psychological state and relax them through their anxiety and stress.

Psychologically, this study found that music evokes significant effects on mood regulation and stabilization. It conjures thoughts, memories, images, and emotions, affecting our cognitive process, decision-making, and interactions with others. Participants were able to

describe vivid images of a storyline through a film script created in their head as they were listening to the music and lyrics and watching the performances. This result was consistent with the findings of Stalinski and Schellenberg (2013), who found that mood affects the kind of information that is likely to be remembered and that memory is influenced not only by what is being processed but also by how it is being processed. The study also found music as a factor that describes the parallels of life through its triumphs and tribulations. Utilizing the Iso Principle technique, the levels of emotional intensity from those triumphs and tribulations can be gradually modified through music's vibration thereby affecting the psychological and cognitive components creating a transformation of behavior. This result was consistent with Heiderscheit and Madson (2015) and Davis et al. (2008), who noted that when using the Iso Principle, music is purposefully selected to match the person's mood and steadily modified to produce the desired mood.

Socially, this study identified music as a universal language. Regardless of a person's intersectionality or demographics, this study found that music connects people, from non-musicians to professional musicians. Music provides a sacred space for both introverts and extroverts to embrace opportunities for socialization, collaboration, and celebration without fear of exclusion, criticism, or judgment. This result was consistent with those of Bore (1929), who found that music provides a natural outlet for expression and helps individuals make adjustments and modifications needed to cope within existing social conditions.

This study found that applying the Cognitive Behavioral Model to music and lyrics did not change the situation or storyline; instead, participants described their varying experiences (positive and negative), identified their thoughts by describing their interpretation of the lyrics which affected their emotions thereby affecting their behavior. Music was the catalyst to

understanding human behavior through the lens of the clinician, educator, and musician via participants' responses to the lived experience. This result was consistent with the findings of Hollon (2010), Hutchison (2013), and Iverach et al. (2017), who found that an individual's thoughts, feelings, and behaviors interact, are interconnected and affect one another.

This study addressed how music taps into thoughts and emotions, thereby affecting our behavior. Because the researcher did not provide definitions or a list of moods or emotions, participants were challenged to identify and self-reflect. Participants initially used words such as *good*, *fine*, and *okay* loosely to identify their emotions instead of more specific terms such as *happy*, *sad*, *angry*, and *excited*. Once the researcher provided clarity on words, participants were then challenged to disclose their feelings and emotions (via documents or interviews) that initially may have laid within quadrant III (private area) and IV (unknown potential) of their Johari Window as opposed to quadrant I (open area). Some participants self-disclosed that they never had, during their adult lives, identified moods or emotions beyond a vague term.

The study also explored the challenges participants faced during the educational component of teaching the cognitive behavioral process; some participants sought to help their fellow participants, offering suggested emotional words. This did not help the participants to identify their thoughts and emotions as they sought validation and approval from others disabling the opportunity for self-discovery (quadrant IV) of the Johari Window. However, through the acceptance of the composition and drawing parallels to the lyrics, participants were able to identify their feelings and emotions through memories and personal experiences.

Music and Lyrics

The composition of music and meaning of lyrics provided an educational awareness of the self and others. Music initially captures a listener's attention, whether it is the vibration of

the rhythm, melody, tempo, or harmony. In contrast, lyrics ignite the listener's personal experiences and memories. This study found that music has the vibration and frequency needed to release artistic expression and provide a pathway to transform thoughts and mood and take the listener on an emotional journey. This was demonstrated through the jam session in which musicians played music, and others who were strangers were invited to join as they caught the vibration of the rhythm and tempo. Then other musicians began to harmonize with each other through improvisation, creating a beautiful masterpiece. This result was consistent with the findings of Matravers (2010), Opiyo (2015), and Pearsall (1999), who stated that the expression of music is contingent on our perceptions between the composition of music, the interpretation of lyrics, and the human experience.

Conflict Transformation Theory indicated how musicians use music to address the issues of society to generate change; music provides a platform to transform emotions and perceptions of issues, actions, and people (i.e., racial inequality and social injustice). This result was consistent with the findings of Kopecek, Hoch, and Baar (2016), who stated that Conflict Transformation Theory entails the transformation of relationships and interests with the intention of eliminating the identified conflict. Opiyo (2015) stated that the nature of the music was transformative.

This study demonstrated how music soothes troubled minds and enhances learning and performance when participants had the opportunity to compose, write, and reflect personal accounts of the experience directly after the session. Utilizing that experience to help participants map their emotional experience through personal reflection and enhanced learning would provide a more in-depth platform from which to learn individually and collectively.

Implications for the Future

The descriptive experiences of the Music & Lyrics by Design study provided by the participants are contributing factors to future research within the fields of arts and entertainment, mental health, and education. This study provided a comprehensive assessment within a phenomenological design, applying an eclectic framework from the lens of a musician, clinician, and educator that no singular study has done thus far.

Field of Arts and Entertainment

Music is a universal language that cannot be studied in isolation. This research provided a deeper analytical lens of the essence of the power musicians have through their music and lyrics. By applying music within a Cognitive Behavioral Model, musicians can understand their cognitive process when met with emotional roadblocks that stunt their artistic growth and creativity. This knowledge reminded musicians that the situation (personal or societal) does not change, but it is their thoughts (what they say to themselves, positive or negative) that affect their emotions, thereby affecting their behavior (a completed composition or song). By understanding their internal and external field of awareness of the Johari Window, musicians can become consciously aware of their dominant window through self-reflection and interacting with others and modify their window accordingly. Musicians who use music as a funnel of self-identity, exploration, or escape and have a deeper knowledge of their interpersonal self-awareness will become more consciously aware of the effects their field of awareness has on their artistry and the degree to which it is received and perceived.

Field of Mental Health

Clinical practices in social work, psychology, and other related fields are reminded to look beyond a diagnosis, an illness, or one specific component of a person. Looking holistically

at the biopsychosocial model and integrating music as an adjunct to services incorporates utilizing creative tools with clients who utilize music and lyrics as a healing agent to express, heal, or make sense of the world that cannot otherwise be done through language. Music provides a more in-depth analysis of the internal and external systems affecting an emotional and behavioral transformational change. The blending of the Cognitive Behavioral Model with the traditional systems approach, applying mapping techniques, seeks to unmask the biological, psychological, and social components of human behavior by capturing the attention of auditory, visual, and kinesthetic learners through alternative coping mechanisms. Utilizing music as a platform for self-reflection and expression through verbal and literary communication during a therapeutic session provides an avenue for a more in-depth exploratory session to help identify creative interventions and coping skills that may not otherwise be openly received by a creative client. The Iso Principle technique can be embedded into the self-reflective, therapeutic session as a meditative mechanism or adjunct to the identification and modification of mood stabilization.

Field of Education

As an adjunct to formal education, holistic education incorporating music creates an internal awareness of individuals and the perceptions of others. Models and theories such as the Johari Window and Conflict Transformation Theory can be used to increase students' (non-musician, amateur musician, or professional musician) awareness and transformation of perceptions regarding issues, actions, other people, and groups. Through this knowledge and understanding, achievement and performance can improve. Music enhances the capacity and intellectual ability to learn, especially when tailoring the modes of art to the auditory, visual, and kinesthetic learner. As venues continue to grow and share space, embracing the arts and

entertainment communities that encapsulate non-musicians, amateur musicians, and professional musicians, educational components regarding the power of music and lyrics and the platforms from which artists create and express should be embedded within the space to enhance learning individually and collectively to bring about transformational change.

Recommendations for Future Research

Given the findings of this research and the existing literature, it would seem that music is a universal language and the catalyst for transformational healing. However, we lack knowledge in the areas of academic achievement, job performance, and social and emotional well-being as it relates to music. Therefore, future research should address:

1. how music affects mood and human behavior, as well as its effect on academic achievement, job performance, and enhanced learning from not only a theoretical perspective but also an environmental standpoint;
2. a mixed methods approach utilizing quantitative data from focus groups and live interviews, enabling a more rich and comprehensive data set;
3. high school students and college students within the performing and visual arts field, adult musicians, and adults who work directly within the arts and entertainment field to expand on the effects of music on mental processing across generations and the artistic community;
4. a holistic view from a biopsychosocial, person-in-environment perspective to identify the integration of music and mental processing across systems; and
5. enhanced learning with STEAM versus STEM education and the mental health field, integrating analytical components of deductive and inductive reasoning and problem-

solving with the expressive workings of innovation, critical thinking, flexibility, adaptability, and social skills.

Also, as more funding becomes available, future research can be enhanced by conducting a full day live event, incorporating breakout workshops for musicians, clinicians, and educators, incorporating generations of non-musicians, amateur musicians, and professional musicians from high school aged youth to senior citizens. The study would change from a qualitative approach to mixed methods and extend to a larger panel, incorporating musicians, clinicians, and educators to provide a more rich, in-depth discussion from the lens of each field of study. Within each of the breakout sessions, representatives within the fields of study would educate about and demonstrate their prospective knowledge while exploring the integration of music and mental processing and its effect on enhanced learning.

Such a study would ideally include a SWOT (strengths, weaknesses, opportunities, and threats) analysis as a self-assessment tool. This analysis would focus on the participant as opposed to an organization (with which it is traditionally used) and then be interconnected with the Johari Window. "Learning experiences begin with self-awareness then moves into interpersonal awareness" (Scudder et al., 2014, p. 8). The individual SWOT analysis would include:

1. Strengths— reviewing internally the musician or listener's current strengths of accomplishments or skills they have mastered (i.e., human capital—intelligence, education, skill set, experience, knowledge, unique characteristics, competence, etc.);
2. Weaknesses—reviewing participants' challenges that deter them and affect their thoughts and emotions (i.e., skills in need of improvement, gaps in skills, knowledge, or capabilities, areas that lack confidence, etc.);

3. Opportunities—reviewing future external opportunities that will enhance the musician or listener's learning and positively affect his/her emotions and behavior (i.e., upcoming business ventures, personal or professional conferences/events, upcoming projects, positive or significant upcoming changes); and
4. Threats—reviewing externally any future threats that are beyond the participant's control that could influence or affect his/her transformational healing (i.e., upcoming challenges that may negatively impact him/her, self-sabotaging behavior or tendencies that may be sabotaging growth, the impact of weaknesses on one's threats).

Applying these components of self-awareness, similar to that of the Cognitive Behavioral Model, music provides the understanding of the musician or listener's interpersonal awareness of their Johari Window.

This study would also explore the integration from a micro to a macro level, incorporating local community members within the each of the respective fields and expanding to political realms seeking financial support (scholarships, programs), increasing the integration of programs (K–12, higher education, and community programs), and creating more social awareness (arts, education, and mental health). It would incorporate both short and long-term goals from problem-focused to opportunity-focused, blending the lens of the musician, clinician, and educator to manage and govern both applied and theoretical orientations.

Conclusion

The study was conducted to explore the use of music to enhance mental processing and explore its effect on enhanced learning. Through the application of a comprehensive biopsychosocial approach, which included an eclectic paradigm, the research investigated the

complexities and interrelatedness of music and mental processing. This analysis was focused on making connections between music and its effects of enhanced learning, as well as emotional, physical, and behavioral transformational changes. Music was used as a lens to understand human behavior through an analysis of the cognitive process and participants' emotional regulation, as well as to discover if music leads to emotional and physical changes and enhanced learning outcomes.

This study provided a unique lens through which to integrate music, mental processing, and education in its natural form. It was built upon previous research oriented toward the exploration of music and biology, music and neurobiology, music and psychology, music and sociology, and music and education. To summarize, the Music & Lyrics by Design study started with an old Japanese proverb indicating that we have three faces. The first face we show to the world. The second face we show to our close friends and family. The third face we never show anyone. It is the truest reflection of who we are. The study incorporated the different levels of those who engage with music, from the musician to the listener, to explore and encapsulate the essence of the participants' lived experience through music and lyrics. Data were subsequently decoded from the lens of the musician, clinician, and educator.

The historical overview discussed in Chapter 2 revealed the transformational power of music dating back to 2500 B.C. Since time immemorial, music has been identified as a powerful form of expression through the composition of melody, chords, and rhythms as well as the storytelling of lyrics, which influence biological factors, psychological processing, and social experiences (Pearsall, 1999; Sovansky et al., 2016; Yehuda, 2011). It provides the context through which we understand the past, embrace the present, and look to the future, contributing significantly to the human experience (Matravers, 2010; Pearsall, 1999; Opiyo, 2015). Previous

research also indicated that musical frameworks provide opportunities to understand the content, context, and structure of relationships historically, individually, and socially; therefore, music is known as a universal language that cannot be viewed in isolation (Taylor & Paperte, 1958). Taken together, this review of the literature argues that music provides the outlet for expression, modification for emotional and physical behavior changes, and adjustments to cope with social conditions (Bore, 1929).

Chapter 3 described the utility of a phenomenological approach to identify and connect the participants' lived personal experiences, attitudes, behaviors, and emotions. Phenomenology was useful in exploring how music can be used to enhance an individual's cognitive process and emotional regulation, how music affects emotional and physical changes, and how music effects enhanced learning. This study sought to expand on previous studies by applying an eclectic approach utilizing theoretical strips (selected portions of a theory) from the Johari Window Model, Conflict Transformation Theory, Iso Principle technique, Cognitive Behavior Model, and Biopsychosocial Model from the lens of the musician, clinician, and educator. This study explored the meaning and interpretation of music and lyrics though the essence of a lived experience. A stratified purposeful sampling approach was used, incorporating five analytical components (i.e., background, lyrical, video, interactive, and wrap-up) and multiple sources of data collection (i.e., observations, interviews, documents, and audio-visual materials).

Chapter 4 analyzed the study's four components (background, lyrical, video, interactive, and wrap-up) from the lens of the musician, clinician, and educator. Solace and diversion were the predominant themes in music and transformational healing, providing emotional validation and support, was found to be a calming mechanism and tool for escape. Human behavior in its natural state incorporated the biological, neurobiological, psychological, social components

(biopsychosocial model). Through the compilation of those components, life is experienced, and the participants began their journey of emotions through this phenomenological study. Experiences or situations may be rigid or fluid and outside of an individual's locus of control; however, it is the internal thought process of what participants say to themselves that influences their emotions, thereby affecting their behavior (Cognitive Behavioral Model).

Through the biopsychosocial framework, the study confirmed the following findings. Biologically, sleep and energy were the predominant factors; psychologically, music has a significant effect on participants' thinking, emotions, coping, and daily decision making; and socially, music was described as the catalyst during social interactions and the connecting agent for establishing mutual interests. Participants described an increased awareness of societal issues, injustices, and individual triumphs and tribulations.

Music can be used to match emotions, and then gradually modified and altered to transform to the desired emotional state (Iso Principle technique). Being aware of interpersonal relationships, participants began to understand themselves and others based on their internal or external field of awareness: open, closed, blind, and unknown potential. Through their awareness and conscious efforts, the dominant quadrant was identified, enabling them to understand how a change in one quadrant affected other quadrants (Johari Window Model). Since music was used as the catalyst for transformational change, as this study found, then music will continue to have the power to transform perceptions on issues, actions, people, and groups through its tonality, rhythm, melody, harmony, and storytelling (Conflict Transformation Theory).

These results support previous research findings that music is a universal language that has a profound effect on life and is a transformational healing agent. The power of music creates internal and external awareness and has the power to affect our perceptions of others and

situations. It creates a safe space and platform for artistic expression and gives voice to the voiceless through auditory, visual, and kinesthetic learning. It has the properties needed for mood induction, and stabilization, as well as emotional regulation. This research showed that the composition of music is what initially captures a listener's attention, whether it is the vibration of the rhythm, melody, tempo, or harmony, whereas the lyrics ignite the listener's personal experiences and memories and provide a pathway to transform thoughts and mood and take the listener on an emotional journey.

The integration of music and mental processing is the pathway to enhanced learning about ourselves and others and should be an adjunct to the mental health and education fields. Music is a significant component of our daily lives and has the power to affect and influence interpersonal relationships. As research continues to develop within the fields of arts and entertainment, mental health, and education, this integration should continue to be developed and explored locally and globally, providing awareness to the healing powers that lie within music.

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APPENDIX A

The Johari Window: A Graphic Model of Awareness in Interpersonal Relations

Table A1. The Johari Window: A Graphic Model of Awareness in Interpersonal Relations

The Windows we know about ourselves; INSIDE our field of awareness	**The Windows we are unaware of; OUTSIDE our field of awareness**
QUADRANT I – OPEN WINDOW	**QUADRANT II – BLIND WINDOW**
• **Open to the public** • Area of public activity • A part of us that we know about and are willing to let others see • Behavior and motivation known to self and known to others	• **Blind access** • Area not known to self • Helps people wake up to see themselves • Why we need to help each other • The part of us that we can't see but others can see (e.g., family and friends can see this side of you but you can't) • Others can see things in ourselves of which we are unaware (eg., prejudice)
QUADRANT III – HIDDEN WINDOW	**QUADRANT IV – UNKNOWN POTENTIAL**
• **Private** • Avoided or hidden area • A part of us that we are aware of but don't let others know about • Things we know about ourselves but do not reveal to others (e.g., a hidden agenda; the things that matter to us that we are sensitive about; secret fears; fantasies; dreams)	• **Real Self** • Area of unknown activity • All that is already us but undiscovered yet • Things that we don't know about ourselves and neither does anyone else but its there • Areas of unknown activity • Neither the individual or others are aware of certain behaviors or motives • We don't know *the how*

Note. A window into ourselves; a change in any quadrant will affect all other quadrants.

APPENDIX B

Applying the Cognitive Model to Musical Artists

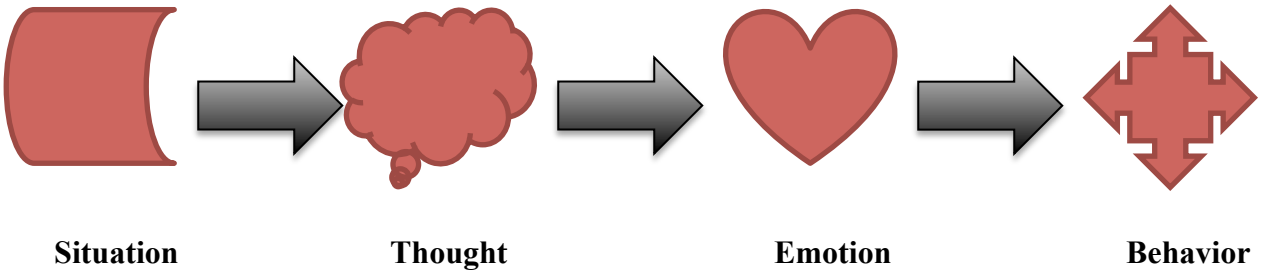


Figure B1. Traditional cognitive behavioral model

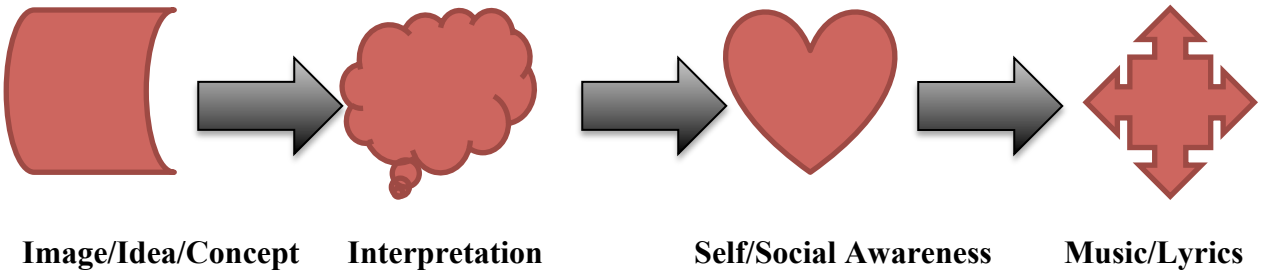
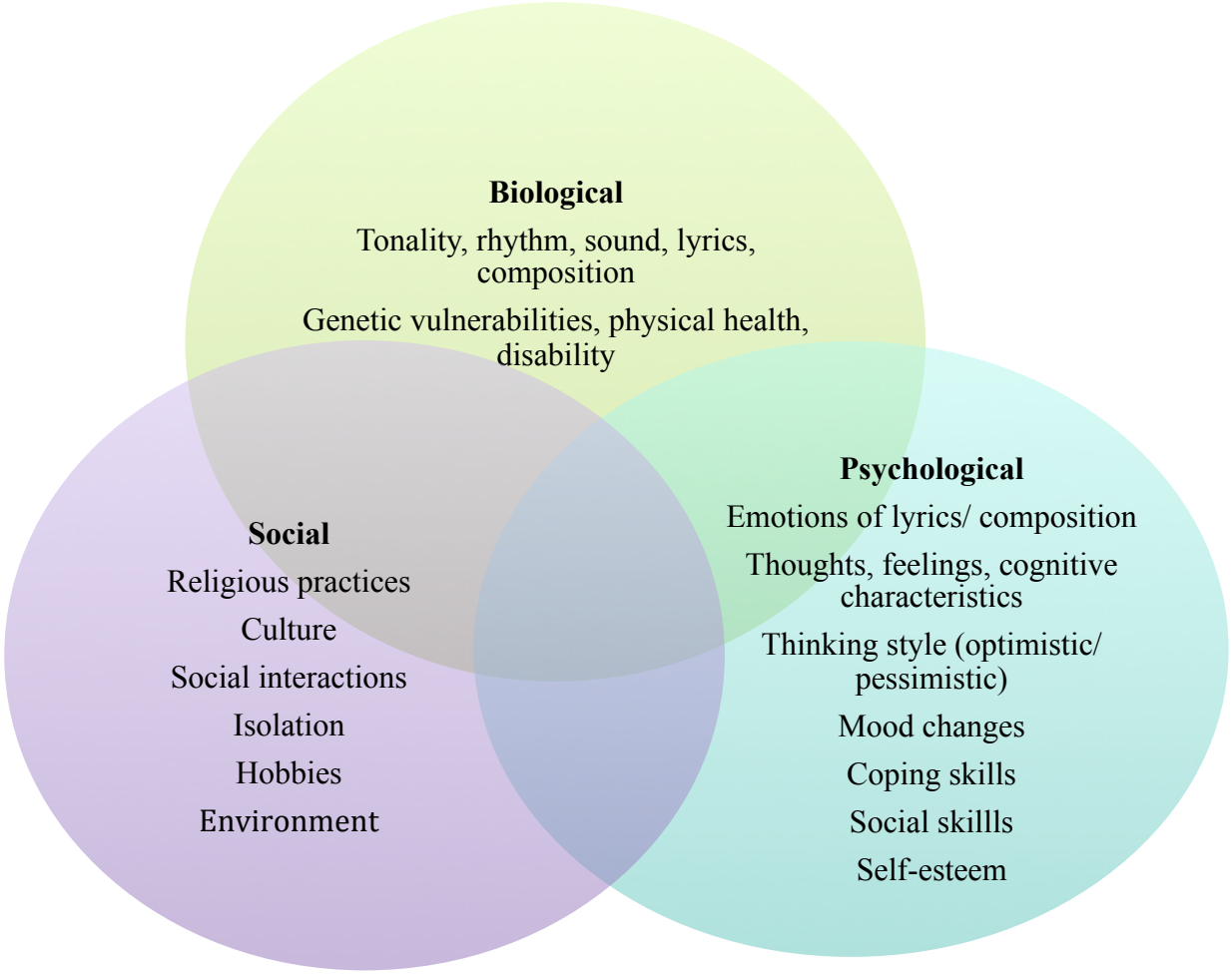


Figure B2. Artist process of the cognitive behavioral model

APPENDIX C

Applying the Biopsychosocial Approach to Musical Artists



Biological (Situation: Image/Idea/Concept) - - - "Core Foundation"

- External healing of physical symptoms (i.e., fatigue, energy, ailments)
- The influence/effects of neurobiological and developmental factors

Psychological (Thought: Interpretation - - - Emotional: Self: Social Awareness)

- Internal healing
- Interpretation of emotions/language
- The influence of how a person thinks/processes information which affects decisions and relations in daily life
- Learning and intellectual ability

Social (Behavior: Music/Lyrics)

- Factors affecting/influencing personality, attitude, and lifestyle
- Behavior changes (i.e., avoidance)
- Societal injustice/societal issues

APPENDIX D

Observation Field Notes: Participant Code # ___

☐ Engaged ☐ Not Engaged

1. How is the participant demonstrating/not demonstrating interest in music?

Descriptive Notes:

Analysis	Person(s)	Comments	Actions
Background			
Video			
Lyrical			
Interactive			
Wrap-Up			

Researcher Reflective Notes:

_____

_____

_____

_____

2. What verbal reactions are displayed while listening to music?

Descriptive Notes:

Analysis	Person(s)	Comments	Actions
Background			

Video			
Lyrical			
Interactive			
Wrap-Up			

Researcher Reflective Notes:

3. _____

_____

_____

_____

What verbal reactions are displayed while participating with musical activity?

Descriptive Notes:

Analysis	Person(s)	Comments	Actions
Background			
Video			
Lyrical			
Interactive			
Wrap-Up			

Researcher Reflective Notes:

_____

_____

_____

_____

APPENDIX E

Group Interview—Original: Lyrical Discussion

Name of Song: _____

1. How did listening to this song help you explore and identify your thoughts and feelings?
2. How did the lyrics affect your mood/behavior?
3. How did the composition affect your mood/behavior?
4. What was your interpretation of the lyrics?
5. How did you relate to the music and lyrics?
6. How did the lyrics capture your attention?
7. How did the composition capture your attention?
8. Final words from the participant

APPENDIX F

Musician Interview— Lyrical Forum Discussion

Name of Song: _____

1. What is music to you?
2. How did writing this song help you express your thoughts and feelings and affect your behavior?
3. What was your motivation for writing the song?
4. What is the story behind your lyrics?
5. Was the reaction from the participants what you were looking for?
6. If you were to unmask yourself, what is one or two things you want listeners to understand or know about you and/or your lyrics?
7. Listening to the participants unmask your song, what is something about yourself (i.e., thought process, mood, view on life) you were unaware of prior to hearing their feedback and discussing your lyrics with them?
8. How does music help you enhance your learning and performance?
9. How and what effect does music have on transformational healing for you?

APPENDIX G

Background Interview Notes: Participant Code # ___

1. Please describe how you are feeling today?

_____

_____

_____

_____

2. When you listen to music (lyrics or composition), what is it that initially grabs your attention? Why?

_____

_____

_____

_____

3. How and what effect does music have on your transformational healing?

_____

_____

_____

_____

Demographics

Gender: ☐ Male ☐ Female

Age: ☐ 18–25 years ☐ 26 and over

How would you identify yourself?

☐ Non-Musician ☐ Amateur Musician ☐ Professional Musician

Description: Non-Musician

* I play music outside regular school
* I have had a little practice that was not recent and/or weekly
* I have musical experience that has been fewer than 5 years

Description: Amateur-Musician

* I am musically trained and self-taught
* I may or may not have graduated from a music high school
* I have between 1 and 5 years of recent and weekly practice
* I have more than 5 years of experience that had not been recent and/or at least weekly

Description: Professional Musician

* I attended music lessons for more than 5 years
* I practiced an instrument or sang regularly and earned money from music teaching and/or performance

APPENDIX H

Music and Lyrics by Design Playlist

Background Songs

1. George Benson, “Masquerade”
2. Stevie Wonder, “I Wish”
3. Jill Scott, “Golden”

Video Songs

1. Logic the Rapper, “1-800-273-8255”

Lyrical Songs

1. Bill Withers, “Use Me”
2. George Benson, “Turn Your Love Around”
3. Original selection
4. Original selection
5. Original instrumental selection

Interactive Songs (open mic)

Wrap-Up Songs

1. Stevie Wonder, “As”
2. Corinne Bailey Rae, “Put Your Records On”

APPENDIX I

Define Music: Participant Code# ___

1. Music to me is?

_____

_____

_____

_____

_____

_____

APPENDIX J

Video 1—Journey of Music Activity: Participant Code # ___

Name of Song: "1-800-273-8255" (by Logic the Rapper)

Instructions: Rate each response as honestly as possible to the best of your ability

1. Describe your feelings, thoughts, and emotions prior to the video?

_____

_____

_____

_____

2. What emotion does the video evoke in you and why?

Name the emotion: _____

3. What was your interpretation of the composition and lyrics as you watched the video?

_____

_____

_____

_____

4. In what way was your mood or behavior changed as a result of the video?

_____

_____

_____

APPENDIX K

Song 1—Lyrical Analysis Form: Participant Code # ____

Name of Song: "Use Me" (by Bill Withers)

1. How did listening to this song help you explore and identify your thoughts and feelings?

_____

_____

2. How and it what capacity did you relate to the lyrics?

_____

_____

3. How did the lyrics capture your attention?

_____

_____

4. How did the composition capture your attention?

_____

_____

5. What was something about yourself (i.e., thought process, mood, view on life) you were unaware of prior to listening and discussing the lyrics and engaging in this activity?

_____

_____

Song 2—Lyrical Analysis Form: Participant Code # ____

Name of Song: "Turn Your Love Around" (by George Benson)

1. How did listening to this song help you explore and identify your thoughts and feelings?

_____

_____

2. How and in what capacity did you relate to the lyrics?

_____

_____

3. How did the lyrics capture your attention?

_____

_____

4. How did the composition capture your attention?

_____

_____

5. What was something about yourself (i.e., thought process, mood, view on life) you were unaware of prior to listening and discussing the lyrics and engaging in this activity?

_____

_____

APPENDIX L

Wrap-Up: Participant Code # ___

Instructions: Rate each response as honestly as possible to the best of your ability

1. How did this study change your views about music?

_____

_____

_____

2. How did this study change the way you interpret and listen to music?

_____

_____

_____

3. How does music affect you biologically (i.e., affect and/or influence your physical development, sleep, energy, and/or ailment*)?*

_____

_____

_____

4. How does music affect you psychologically (i.e., affect and/or influence your emotions, personality, attitude, and how you think, cope, and make daily decisions)?

_____

_____

_____

5. How does music affect you socially (i.e., affect and/or influence your lifestyle, behavior, and/or daily practices)?

_____

_____

_____

6. What experience, in the Music and Lyrics by Design Study helped you personally identify, analyze, process, and understand how music affects, transforms, and/or heals you?

_____

_____

_____

APPENDIX M

Recruitment Script

Sample Written Recruitment Script Template

Dear [Name],

My name is De Vida Gill, and I am a doctoral candidate in the Graduate School of Education and Psychology at Pepperdine University. I am conducting a research study exploring the integration of music and mental health and its effect on enhanced learning and you are invited to participate in the study. If you agree, you are invited to participate in an interactive immersive experience with music at the Hot and Cool Cafe in Los Angeles, California. The live event is anticipated to take no more than four hours to complete which includes individual and group interviews, panel discussions, an open mic immersive experience and jam session. The study will be audio-visually recorded for research purposes. Participation in this study is voluntary. Your identity as a participant will remain anonymous and confidential during and after the study. You will be given a participant code as a pseudonym to protect your identity and recordings and documents will be password protected. If you have questions or would like to participate, please contact me at _____. Thank you for your participation.

De Vida Gill, Doctoral Candidate
Pepperdine University
Graduate School of Education and Psychology

Updated 12/2018

APPENDIX N

Informed Consent

PEPPERDINE UNIVERSITY

Graduate School of Education and Psychology

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

MUSIC AND LYRICS BY DESIGN

You are invited to participate in a research study conducted by De Vida Gill, LCSW under the supervision of Dr. Ebony Cain Data at Pepperdine University, because you are identified as a non-musician, amateur musician, or professional musician. Your participation is voluntary. You should read the information below, and ask questions about anything that you do not understand, before deciding whether to participate. Please take as much time as you need to read the consent form. You may also decide to discuss participation with your family or friends. If you decide to participate, you will be asked to sign this form. You will also be given a copy of this form for you records.

PURPOSE OF THE STUDY

The purpose of the study is to use music as a lens to understand human behavior by analyzing the cognitive processing and emotional regulation that leads to the emotional and physical changes and operationalize the concept of enhanced learning.

STUDY PROCEDURES

If you agree to participate, you will be asked to participate in a face-to-face interview, before and after the study, which is anticipated to take approximately 7 minutes each. This survey includes questions regarding your personal views on music. This study will be audio-video recorded for research purposes only and will not shared outside the premises of this research.

POTENTIAL RISKS AND DISCOMFORTS

The potential and foreseeable risks associated with participation in this study is of low risk regarding anxiety, sadness, or other emotional reactions. You may discontinue your participation at any time.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

While there are no direct benefits to the study participants, there are several anticipated benefits to society, which include: helping to advance knowledge in the field of arts and entertainment, mental health, and education.

CONFIDENTIALITY

I will keep your records for this study anonymous as far as permitted by law. There will be no identifiable information obtained in connection with this study. Your name, address or other identifiable information will not be collected.

PARTICIPATION AND WITHDRAWAL

Your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

ALTERNATIVES TO FULL PARTICIPATION

The alternative to participation in the study is to not participate. Your relationship with any parties will not be affected whether you participate or not in this study.

INVESTIGATOR'S CONTACT INFORMATION

I understand that the investigator is willing to answer any inquiries I may have concerning the research herein described. I understand that I may contact **De Vida Gill, LCSW at devida.gill@pepperdine.edu and Dr. Ebony Cain at ebony.cain@pepperdine.edu** if I have any other questions or concerns about this research.

RIGHTS OF RESEARCH PARTICIPANT—IRB CONTACT INFORMATION

If you have questions, concerns or complaints about your rights as a research participant or research in general please contact Dr. Judy Ho, Chairperson of the Graduate & Professional Schools Institutional Review Board at Pepperdine University 6100 Center Drive Suite 500 Los Angeles, CA 90045, 310-568-5753 or gpsirb@pepperdine.edu.

SIGNATURE OF RESEARCH PARTICIPANT

I have read the information provided above. I have been given a chance to ask questions. My questions have been answered to my satisfaction and I agree to participate in this study. I have been given a copy of this form.

_____
Name of Participant

_____ _____
Signature of Participant Date

SIGNATURE OF INVESTIGATOR

I have explained the research to the participants and answered all of his/her questions. In my judgment the participants are knowingly, willingly and intelligently agreeing to participate in this study. They have the legal capacity to give informed consent to participate in this research study and all of the various components. They also have been informed participation is voluntarily and that they may discontinue their participation in the study at any time, for any reason.

_____

Name of Person Obtaining Consent

_____ _____

Signature of Person Obtaining Consent Date

APPENDIX O

Site Permission Letter

PEPPERDINE
UNIVERSITY

[PRINTED ON RESEARCH SITE'S LETTERHEAD]

2/22/19

Pepperdine University
Graduate and Professional Schools Institutional Review Board (GPS IRB)
6100 Center Drive – 5th Floor
Los Angeles, CA 90045

RE: DE VIDA GILL, RESEARCHER
MUSIC & LYRICS BY DESIGN STUDY:
UNMASKING THE NOISE WITHIN: AN EXPLORATION OF THE INTEGRATION OF MUISC AND MENTAL HEALTH AND ITS EFFECT ON EHANCED LEARNING

To GPS IRB:

This letter is to convey that I/we have reviewed the proposed research study being conducted by DE VIDA GILL intended to CONDUCT RESEARCH at _____ and find MUSIC & LYRICS BY DESIGN acceptable. I/we give permission for the above investigators to conduct research at this site. If you have any questions regarding site permission, please contact: _____.

Sincerely,

_____

Updated 12/2018

APPENDIX P

IRB Approval Notice

PEPPERDINE

Pepperdine University
24255 Pacific Coast Highway
Malibu, CA 90263
TEL: 310-506-4000

NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: March 12, 2019

Protocol Investigator Name: De Vida Gill

Protocol #: 19-01-980

Project Title: Unmasking the Noise Within: An Exploration of the Integration of Music and Mental Health and its Effect on Enhanced Learning

School: Graduate School of Education and Psychology

Dear De Vida Gill:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

cc: Mrs. Katy Carr, Assistant Provost for Research