2019

Utilizing Music Therapy to Enhance Competency Restoration Treatment

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In Dusky v. the United States (1960), the Supreme Court ruled that the U.S. Constitution requires all defendants to be competent to proceed before the judge issues a verdict. Specifically, to stand trial, defendants must have a factual and rational understanding of court proceedings and the capacity to work with their attorneys. Those who are found incompetent to proceed frequently have severe and persistent mental illness and often exhibit cognitive deficits (Mossman et al., 2007). Competency restoration utilizes therapeutic services to treat symptoms that inhibit defendants from being opined competent to proceed. Existing research suggests music therapy can be used to modulate learning, decrease symptoms of mental illness, and enhance cognitive processes (Werner, Wosch, & Gold, 2017; Nilsson, 2008; Thompson & McFerran, 2015). This review of the literature describes the clinical implications of utilizing music therapy to enhance competency restoration programs and the mechanisms for change based upon Acceptance and Commitment Therapy. Ultimately, this enhancement will aim to provide effective services and decrease the length of stay and overall wait time of competency restoration.

Document Type

Doctoral Research Paper

Degree Name

Psy.D.

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Keywords

Music therapy, Incompetent to proceed, Mental disability, Developmental disability, ACT

Subject Categories

Cognition and Perception | Disability Studies | Other Psychology | Psychoanalysis and Psychotherapy | Psychology

Utilizing Music Therapy to Enhance Competency Restoration Treatment

A DOCTORAL PAPER

PRESENTED TO THE FACULTY OF THE

GRADUATE SCHOOL OF PROFESSIONAL PSYCHOLOGY

OFFICE OF GRADUATE STUDIES

UNIVERSITY OF DENVER

BY

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JUNE 4, 2019

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Abstract

In *Dusky v. the United States* (1960), the Supreme Court ruled that the U.S. Constitution requires all defendants to be competent to proceed before the judge issues a verdict. Specifically, to stand trial, defendants must have a factual and rational understanding of court proceedings and the capacity to work with their attorneys. Those who are found incompetent to proceed frequently have severe and persistent mental illness and often exhibit cognitive deficits (Mossman et al., 2007). Competency restoration utilizes therapeutic services to treat symptoms that inhibit defendants from being opined competent to proceed. Existing research suggests music therapy can be used to modulate learning, decrease symptoms of mental illness, and enhance cognitive processes (Werner, Wosch, & Gold, 2017; Nilsson, 2008; Thompson & McFerran, 2015). This review of the literature describes the clinical implications of utilizing music therapy to enhance competency restoration programs and the mechanisms for change based upon Acceptance and Commitment Therapy. Ultimately, this enhancement will aim to provide effective services and decrease the length of stay and overall wait time of competency restoration.

Keywords: music therapy, incompetent to proceed, mental disability, developmental disability, acceptance and commitment therapy

Utilizing Music Therapy to Enhance Competency Restoration Treatment

A defendant's competency to proceed in a trial is a psycho-legal question, raised during a criminal trial. In 1960, *Dusky v United States*, the Supreme Court ruled that the United States Constitution requires all defendants to be competent to stand a criminal trial (Christy, Otto, Finch, Ringhoff, & Kimonis, 2010). Defendants can be deemed Incompetent to Proceed (ITP) if they do not have a factual or rational understanding of criminal legal proceedings. Two of the most significant factors associated with failure to understand the legal system are the presence of severe mental health symptoms and impairment in cognitive abilities (Adokat, Guidry, Burnett, Manguno-Mire, & Thompson, 2012). Defendants deemed ITP are placed in community, jail-based, or institutional-based restoration programs. These programs provide educational, therapeutic, or medication interventions to restore an individual's mental health. Recent data from the Colorado Department of Human Services showed a substantial increase in defendants being referred for competency evaluations (White, 2017). These significant increases in referrals suggest a need for a more considerable amount of effective restoration services and programs. I aim to examine national issues related to competency restoration and emphasize the current difficulties faced by the state of Colorado. Furthermore, I review the current research on music therapy and the clinical implications of utilizing music therapy to enhance competency restoration services. Lastly, I describe how music therapy facilitates competency restoration through acceptance and commitment therapy.

Literature Review

Competency Restoration

For a defendant to be placed into a competency restoration program, the defendant must be deemed incompetent to proceed. The judge, prosecution, or defense must request a

competency examination of a defendant. Often, this occurs when the defendant is showing symptoms of mental illness, intellectual disability, and is unable to understand psycho-legal information. During this process, a court-appointment evaluator, typically a psychologist or psychiatrist, conducts an examination to determine the defendant's ability to proceed. Once the individual is opined incompetent to proceed, a program is selected based on the individual's level of risk to themselves or others and current mental health symptoms. Restorative services are commonly provided in forensic psychiatric hospitals, and less widely conducted in county jails and community treatment facilities.

Once an individual is in a restoration program, clinic staff will initially and regularly evaluate the individual's level of competence to determine strengths, weaknesses, and treatment needs. States like Colorado often require a defendant to be routinely assessed to determine their amenability to treatment and progress in treatment (White, 2017). A defendant's level of competence may change depending on the severity and complexity of the charges and the amount of social interaction with his/her attorney (Grisso, 2003). For example, if an individual is charged with murder, they must understand the ramifications of the various plea options, such as life without the possibility of parole. In comparison, an individual who committed assault may have fewer interactions with their attorney and may not have to weigh the long-term consequences of plea decisions. The severity of a case often increases the complexity of the outcomes of the case.

Treatment of those considered incompetent to stand trial often requires two levels of intervention. The first level of intervention focuses on specific deficits related to understanding criminal proceedings and the defendant's ability to assist their counsel. Treatment often provides educational programming that focuses on knowledge-based learning (Stafford & Sellbom, 2013).

Defendants are educated on factual information including, but not limited to, various legal terms, prominent figures in the courtroom, plea options, courtroom layout, appropriate behavior in the courtroom, and the importance of evidence.

The second level of intervention focuses on the alleviation or reduction of mental health symptoms related to their ability to assist in counsel. Treating mental health symptoms often involves defining, creating, and increasing symptom management skills through individual and group therapy. Furthermore, defendants are challenged to critically think about the legal system to promote rational thinking and problem-solving skills. Defendants are often provided with legal vignettes and asked to conceptualize factual information to determine a reasonable outcome of a case. An example of a vignette can be found in Appendix A. Additionally, those with severe and persistent mental illness are often prescribed psychotropic medications to manage symptoms such as delusions and hallucinations (Lieberman et al., 2005). The vast majority of those who are in competency restoration treatment suffer from a related psychotic disorder, such as schizophrenia and schizoaffective disorder. Medication management and adherence is often a central component of treatment and achieving competency. Overall, it requires a comprehensive treatment team comprised of psychologists, psychiatrists, social workers, and peer support specialists to address a multitude of mental health, social, and legal concerns.

National deficits. Across the United States and within county jails, there is a lack of adequate mental health services (James & Glaze, 2006). Currently, mental health services in the judicial system are overwhelmed by the number of individuals who need restorative services. When mental health symptoms are left unchecked, symptoms can become more severe and harder to treat. Mossman et al. (2007) found that roughly 50,000-60,000 defendants are evaluated for competency to stand trial each year and approximately 20% of those are found

incompetent by the courts. More recent data from the Colorado Department of Human Services showed there was roughly a 25% increase between 2013 and 2016 in defendants who were referred for a competency evaluation (White, 2017). As a result, competency restoration programs are strained by the waitlists of individuals awaiting treatment. This shortage of services directly impacts many individuals in jails as they do not receive appropriate psychiatric care. Increased length of wait times inhibits the defendant's ability to progress in the legal process and decreases their amenability to treatment as their mental illness worsens (Wortzel, Binswanger, Martine, Filley, & Anderson, 2007). The significant increases in referrals for restorative services suggests a need for a considerable amount of effective restoration treatment strategies and programs. These statistics highlight the importance of developing effective restoration services.

Systemic and patient impact. In the mid-1990s, a lawsuit was filed in Colorado by patients who resided in the state mental hospital. The patients indicated there were significant issues with overcrowding and alleged maltreatment (Wortzel et al., 2007). In 1999, a settlement was reached to increase occupancy and increase the staff to patient ratio. The Colorado Department of Human Services then requested and were allotted $3.5 million to address these limitations. However, overcrowding and effective services continued to be an issue. Patients awaiting restorative services were still not transferred from jail to a mental health facility. Ultimately, there was a continued strain and pressure on state hospitals to perform with limited resources.

The increased financial deficit directly impacts the state’s ability to provide mental health services in restorative programs. Court-appointed attorneys sought punitive action by fining facilities $1,000 per day for each defendant who remained on the waitlist for restorative services.

Fortunately for Colorado's forensic state hospitals, this was avoided after both parties agreed on an appropriate length of time a defendant is allowed to be on a waitlist (Wortzel et al., 2007). Overall, if the competency restoration crisis is left unaddressed, there will be increased legal ramifications and financial strains.

Across the nation, there is a significant concern about the impact on patients awaiting mental health services. In Clearwater, Florida, a defendant who was suffering from schizophrenia was in county jail awaiting admission to a psychiatric hospital (Wortzel et al., 2007). During that wait time, he gouged his eyes out, as he was not receiving appropriate services. This example highlights the impact of increased wait times for those who suffer a mental illness. Research has shown that a shorter duration of untreated depression (Ghio et al., 2015), psychosis (Penttila, Jaaskelainen, Hirvonen, Isohanni, & Miettunen, 2014; Tabo et al., 2017), and anxiety (Dell'Osso et al., 2016) is associated with more favorable treatment outcomes. In general, as mental health symptoms go untreated, symptoms often increase in duration, frequency, and intensity. Ultimately, this shortage of appropriate psychological services will lead to a higher degree of functional impairment and decrease an individual's amenability to treatment.

Treatment settings. Across all treatment settings, patients and defendants have the opportunity to engage in competency restoration treatment. Defendants obtain knowledge during psycho-legal educational classes that review factual information related to criminal proceedings. This format allows staff to deliver pertinent information and correct common misconceptions related to court, plea options, and essential courtroom personnel. Furthermore, these classes often challenge the defendant's abilities to understand criminal proceedings rationally. Depending on the state, treatment is performed in three different types of settings: jails, in the

community, and forensic state hospitals. Currently, jail-based restoration programs utilize multiple different interventions and educational strategies. On a daily-basis, defendants receive up to four hours of group treatment, individual treatment, and recreational time. Recently, there has been a movement for competency restoration programs to be implemented in community-based settings. These settings offer treatment to defendants who are released into the community, as they were determined to be a minimal threat to themselves or others and do not suffer from a debilitating mental disorder. Treatment is provided every week but is not in the same frequency as a jail-based setting. Overall, defendants treated in the community often have fewer treatment needs when compared to those in jail or hospital-based programs. Lastly, like jail-based restoration programs, forensic hospitals provide more intensive interventions that are tailored to the individual's idiosyncratic needs. Institutions offer treatment for those who are determined to be of higher risk to themselves or others, are determined to be uncooperative, or have clinical needs that warrant hospitalization (White, 2017). At times, defendants are placed in jail-based restoration programs when they experience symptoms of psychosis causing them to be gravely disabled. These defendants then can be transferred to a forensic state hospital to receive involuntary, court-ordered medication. This transfer is a process where the courts decide, based on clinical information, that a patient or defendant is required to take psychotropic medication to alleviate symptoms of mental illness.

Duration of treatment. *Jackson v. Indiana* (1972) specifically outlined the maximum timeframe for competency restoration treatment. The Courts decided a criminal defendant could not be indefinitely held by the state, as it would violate their right to due process, also known as the 14th Amendment. Explicitly, this case stated a defendant could only be held for a "reasonable period of time to determine whether there is a substantial probability that he will attain

competency in the foreseeable future" (Jackson v. Indiana, 1972 p. 86). If the defendant is deemed unrestorable, they must undergo civil commitment proceedings. For example, an individual who commits a crime with a potential maximum sentence of two years can only undergo restoration treatment for the length of the possible sentence. If held longer, this would be deemed unreasonable, unconstitutional, and a violation of due process.

The average length of stay for competency restoration will vary depending on the individual's cognitive functioning and mental health symptoms. When looking at a person's ability to stand trial, cognitive functioning is considered to be a fundamental component. Ross, Padula, Nitch, and Kinney (2015) explored if the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) predicts the length of stay required to restore trial competency among psychiatric inpatients undergoing restorative treatment. Findings showed patients who scored lower on this measure required more prolonged hospitalizations to be found competent to proceed. Almost 2/3 of the sample (N = 288) scored two standard deviations below the normative mean, suggesting significant cognitive impairments. Furthermore, in this sample the average length of stay in the hospital was roughly seven months.

In Colorado, on average treatment is generally completed within 120 days of the defendant's admission to the treatment program (White, 2017). In the RISE Program, the average length of stay between November 2013 and May 2016 was 51 days. Those placed in forensic hospitals, such as CMHIP, often need a higher amount of time to complete competency restoration treatment, given their more severe impairments. Table 1 shows the average length of stay in competency restoration treatment in Colorado between 2013 and 2016 and takes into account those who require prolonged hospitalizations. When compared to juveniles, adults tend

to require additional time and services and take roughly four months to complete restorative programming.

Table 1

Average Number of Days for Competency Restoration

	2013-2014	**2014-2015**	**2015-2016**
Adults	110.4	121.8	126.7
Juveniles	84.6	95.3	69.3

Impairments, Functioning, and Mental Illness in Forensic Populations

Cognitive functioning. Within forensic populations, mental illness exists at a disproportionately higher rate when compared to the general population. The American Psychiatric Association (2013) defines mental illness as changes in thinking, emotion, or behavior that is associated with distress and problems with functioning in various aspects of life. Furthermore, the American Psychiatric Association indicated that roughly 19% of the United States population suffers from a mental illness, with 4% experiencing a severe mental illness (Parekh, 2018). In recent United States history, the deinstitutionalization of mental health hospitals led to an influx of individuals with severe and persistent mental health illness in the community. Often, communities lack the resources to properly treat these individuals, leading to homelessness and criminal behavior.

Hinton (2014) stated there is little argument that our nation's prison system has a high rate of offenders who diagnosed with a mental illness. The estimates for the rates of offenders in the US prison system […] range from 15% to 20% and can be as high as 28% in some states. Hinton further described that out of a population of 40,000 offenders, roughly 6,000 to 8,000 of

them have a mental illness. Another study found that approximately 20.1% percent of men and 24.8% of women in Michigan's correctional system have a substantial level of mental health symptoms (Fries et al., 2013). Bradley, Cuddeback, Gayman, Morrissey, and Mancuso (2010) found the prevalence rates of severe mental illness ranged from six percent to 12% in jails and 16% to 24% in prisons. Many of those who come into contact with the correctional system suffer from untreated mental health issues such as psychosis, depression, anxiety, trauma, and personality disorders.

Some research suggests that impaired cognitive functioning is associated with antisocial and criminal behavior (Simpson & Hogg, 2001). Cognitive functioning is defined as a person's ability to utilize, process, and make sense of their environments. These mental processes include attention, language, memory, perceptual reasoning, executive functioning, and processing speed. Measures such as the Wechsler Adult Intelligence Scale (WAIS-IV) utilize a variety of tests to measure a person's cognitive functioning or intellectual abilities. Usher, Stewart, and Wilton (2013) found evidence that offenders are more likely to have specific cognitive deficits, such as difficulties with attention, impulsivity, and learning disabilities. Thus, this research suggests that forensic populations may require more assistance and specialized services that address their cognitive deficits.

Psychosis. Schizophrenia and other related psychotic disorders have been found to negatively impact a person's ability to process information and create meaningful relationships. Loeb, Craddock, Rapoport, and Liu (2016) found that adults diagnosed with schizophrenia often have significant working memory deficits. Similar results showed that adults diagnosed with paranoid schizophrenia (Dorofeikova, Neznanov, & Petrova, 2017) demonstrated a decline in cognitive functioning. Furthermore, those diagnosed with childhood-onset schizophrenia often

had more severe cognitive deficits (Dorofeikova et al., 2017). These working memory deficits were also associated with positive symptoms (hallucinations and delusions), but not related to negative symptoms. Other researchers suggested that attention may be impaired, causing significant deficits in cognitive abilities (Pandey, Nizamie, & Signh, 2014). These findings highlight the importance of adequately treating those with schizophrenia, as the symptoms of this disorder lead to a considerable decline in intellectual abilities. Iverson, Brooks, and Haley (2009) found that psychiatric inpatients diagnosed with schizophrenia often score significantly lower on the RBANS when compared to healthy adults. Iverson and his colleagues (2009) indicated these findings are typical for those with psychotic disorders.

Those with schizophrenia often have comorbid disorders and face many obstacles in life. Researchers explored cognitive deficits in a large sample of homeless adults with mental illness (Stergiopoulos et al., 2015); over half of the sample met criteria for psychosis, major depressive disorder, and alcohol or other substance use disorder. Results showed significant neurocognitive impairments within the population. Roughly 72% of the sample showed cognitive deficits in processing speed, verbal learning, memory recall, and executive functioning. Often deficits in cognitive functioning create problems with emotional regulation, analyzing and organizing information, completing complex tasks, and social and occupational functioning. It may be difficult for those who are diagnosed with schizophrenia to understand legal proceedings and engage in productive work with their attorneys due to cognitive limitations.

Given the population, it is likely that symptoms of mental illness create a decline in social and occupational functioning. In a longitudinal study, Green, Kern, and Heaton (2004) explored the impact of symptoms of schizophrenia on overall functioning. Findings showed lower intelligence, more significant impairment in visual and motor memory, and problems with

psychosocial adjustment. Results highlighted that impairments due to hallucinations and delusions inhibit an individual's ability to communicate and interact with others in a prosocial and meaningful way (Green et al., 2004).

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, (DSM-5; American Psychiatric Association, 2013) outlines the specific criteria of mental disorders. Common symptoms of schizophrenia and other psychotic disorders include disorganized thinking and speech, abnormal behavior, diminished emotional expression, avolition, and asociality. These symptoms often impact an individual's ability to convey themselves appropriately. Additionally, a person with schizophrenia might provide answers to questions in a completely unrelated or incoherent way. Furthermore, a significant part of human interaction is behavioral and emotional expression. Therefore, it is likely that an individual with a psychotic disorder who also experiences a diminished ability to express emotions will have difficulties communicating and relating to others in a meaningful way (American Psychiatric Association, 2013). Overall, symptoms of schizophrenia and other related psychotic disorders create cognitive and social deficits that may interfere with an individual's ability to attain competency.

Mood disorders. Throughout the course of mood-related disorders, such as depression, there is a decline in cognitive functioning. Wekking, Bockting, Koeter, and Schene (2012) found that cognitive performance was associated with significant impairment in processing speed and memory in patients with recurrent depressive disorders. Interestingly, patients who were prescribed anti-depressant medications performed worse than those with such medications. These findings may suggest that medication and its side effects may interfere with a patient's ability to process and encode information rapidly. Furthermore, this highlights the importance of utilizing therapeutic techniques that may have a more direct impact on managing depressive

symptoms without creating deficits in cognitive functioning. Additionally, this research suggests the decline in cognitive abilities negatively impacted the patient's quality of life and social functioning, as it is difficult to process information in their environment and recall previously learned information.

The DSM-5 (American Psychiatric Association, 2013) indicates that some of the central components of mood-related disorders, like depression, impact a person's ability to think, concentrate, process information, and causes significant impairment in social functioning. Furthermore, it is likely that individuals with depression will have difficulties communicating in a meaningful way if they have problems with processing information, concentrating on a conversation, and accurately conveying their thoughts. Those with anxiety related disorders experience similar difficulties with concentration, attention, and social withdrawal.

Substance use. Depending on the substance, frequency of use, and the amount used, illicit substances can have significant and detrimental impacts on cognitive functioning. Manning, Verdejo-Garcia, and Lubman (2016b) conducted a review of literature, which revealed consistent evidence of cognitive impairments amongst substance dependent populations. Studies showed visuospatial processing, attention, memory, and executive functioning impairments in roughly 75% of alcohol-dependent and drug dependent patients (Pelletier, Nalpas, Alarcon, Rigole, & Perney, 2016, Manning et al., 2016a). It appears that substance and alcohol dependence cause wide-spread and varied functional impairments.

Overall, the prison system continues to face multiple difficulties in treating those who experience mental disorders. Defendants who are found to be incompetent to stand trial often await restorative services and mental health treatment. These difficulties make it more challenging to treat the symptoms of mental illness. Symptoms of psychosis, anxiety, depression,

and substance abuse often exacerbate cognitive and functional impairments that are necessary to navigate the legal system and to be found competent. To address the rising waitlist for restorative services and impairments caused by mental illness, effective treatment techniques, such as music therapy, need to be utilized.

Music Therapy

Music is defined as a production of sounds that evoke auditory sensations (Cook, 2000). These sensations can create various emotional experiences ranging from happiness to sadness. Plato and Aristotle both commented on music's ability to "calm and sooth, to stimulate and motivate, and for cathartic release" (Grocke, Bloch, & Castle, 2008). Bruscia (1998 p.9) described music as:

> Songs express who we are and how we feel, they bring us closer to others; they keep us company when we are alone. They articulate our beliefs and values, and they bear witness to our lives. Songs weave tales of our joys and sorrows, they reveal our innermost secrets, and they express our hopes and disappointments, our fears and triumphs. They are our musical diaries, our life stories. They are the sounds of our personal development.

Music therapy emerged as a professional discipline in the United States during the 1940s. Music therapy typically functions as an additive treatment along with other interventions such as education, psychopharmacological, and traditional psychotherapy (Silverman, 2015). Currently, music therapy is used for a variety of reasons including cancer care, palliative care, pain control in surgical patients, and treatment of mental health issues (Dileo & Bradt, 2005). Since music therapy's induction into mental health treatment, many forms have been developed. Silverman (2015) noted that clients and patients are often asked to compose songs (both vocally and

instrumentally), create and improvise melodies, analyze song lyrics, and undergo musically-induced relaxation.

Music therapy interventions and techniques. Much like other psychological interventions, music therapy often takes various forms and implements multiple techniques. It can be delivered in individual and group therapy sessions or in conjunction with other treatment modalities (Tseng et al., 2016). The duration, frequency, and amount of sessions are variable, dependent on the facilitator(s) and target audience's needs. Music therapy in psychiatric settings is frequently provided in a group therapy format (Silverman, 2007). This approach increases the amount of patient contact and tends to be more cost-effective compared to an individual therapy format.

Group therapy also allows patients to interact with one another. These interactions can help to manage mental illness through modeling and vicarious learning (Silverman, 2015). Patients may be able to share their personal experiences of stigma related to psychiatric diagnosis and can impart unique coping strategies. Similar to other forms of group psychotherapy, music therapy leaders can facilitate group member discussion about problem-solving strategies, coping skills, and how to utilize resources provided in the facility. Furthermore, even in a group-based format, individualized treatment plans are created to address idiosyncratic problems such as symptom management, decision making, mental health knowledge, substance abuse, problem-solving, and medication management. Music therapists utilize techniques such as songwriting, lyrics analysis, and recreational rhythm-based interventions to promote therapeutic change.

Songwriting. Songwriting is considered a common technique in music therapy that helps patients "find and express their voices and ideas" (Silverman, 2007). This technique also breaks away from the typical norms of psychoeducational classes, allowing for a different type of

emotional release and self-expression. Silverman (2011) used group-base songwriting interventions with acute-care psychiatric inpatients to teach coping skills. Researchers wrote blues songs with patients about coping skills and change. The music therapist worked with the patients to create a meaningful song that was associated with validating frustrations and identifying effective coping strategies. Patients felt they were able to express themselves through songwriting and to convey their internal struggles.

Table 2 shows the different levels of organization in clinical songwriting. At the highest level of structure, individuals are provided with a structured fill-in-the-blank template to choose their own words to complete missing lyrics. Music therapists can help by providing prompts to patients for specific word types (verb, noun, adjective, etc.). These prompts can be used with lower functioning individuals in high turnover, acute-care settings. The medium structure level provides individuals with replacement lyrics that "piggyback" off the foundation of a song. This format focuses on allowing the individual to use their own words to rewrite most of the song lyrics. This higher level of structure can be used with patients who are functioning at lower cognitive levels and with those who have higher capabilities in high turnover, acute-care settings (Silverman, 2011). It is crucial for individuals to be able to finish songs in a short period to ensure a therapeutic dialogue takes place. Lastly, the lowest level of structures asks individuals to compose personalized music and lyrics. This personalization occurs over an extended time and requires individuals to have higher cognitive abilities and more autonomy.

Table 2

The Levels of Structure for Songwriting

Type of Songwriting	Level of Structure	Cognitive and Social Functioning Level
Fill in the blank	High Structure	Low cognitive and social functioning • Patients with SMPI • Can be completed within a single session
Lyric replacement	Medium Structure	Medium cognitive/social functioning • Acute care and brief treatment • Multiple sessions for patients with SPMI • Completed within a single session in acute-care settings
Free composition	Low Structure	High cognitive and social functioning • Acute care and brief treatment • Requires multiple treatment sessions

Lyric analysis. A commonly used music therapy technique is lyric analysis. This technique allows for individuals to share their perspectives on the meaning of songs. Lyric analysis often results in a meaningful discussion about the individual's current experiences. For example, Silverman (2009) conducted a lyric analysis of the song *Don't Stop* by Fleetwood Mac to teach illness management skills. Researchers found that an analysis of the lyrics led to a discussion concerning patients' experiences with anxiety, lack of motivation, frustrations concerning hospitalization, depression, apathy, and physical, emotional, and psychological pain. Findings suggested that lyric analysis is an effective therapeutic strategy to facilitate discussions about difficult and personal struggles. Standley and Jones (2008) developed a list of commonly used songs and organized it by clinical topics. When utilizing any treatment technique, it is essential to use clinically informed information that addresses specific issues such as depression, anxiety, and symptom management.

Recreational rhythm-based interventions. Rhythm-based intervention includes strategies such as group drumming and percussions, beat passing, and rhythm trains. These groups often address clinical topics through recreational means, making treatment more enjoyable and engaging. During facilitated group drumming, cognitive behavioral methods are used to address issues with power in an experimental and symbolic manner (Watson, 2002). Improvisational drumming is used as a cathartic release of emotions, to ease social interactions, and to provide enjoyment in a highly structured setting. This intervention also attempts to increase self-awareness and communication in a group-based setting. Furthermore, drumming can be used with those who have severe and persistent mental illness to increase self-esteem and a sense of accomplishment (Friedman, 2000). Overall, recreational music therapy strategies help to build rapport and create an engaging therapeutic environment.

Treating mental illness.

Symptoms of psychosis. Music therapy is an effective intervention in the reduction of positive and negative symptoms associated with schizophrenia and other psychotic disorders. Sousa and Sousa (2010) investigated the effectiveness of music therapy on psychiatric patients diagnosed with schizophrenia. Patients symptoms were assessed by using the Positive and Negative Symptom Scale for Schizophrenia (PANSS). Results showed a significant difference in PANSS scores in the following domains: positive syndrome, negative syndrome, anergia (lack of energy), activation, and depression. Researchers noted the utility of music therapy as an adjunct treatment in the management of psychotic symptoms.

A meta-analysis was conducted by Tseng and colleagues (2016) to examine the treatment effects of adjunct music therapy on the positive, negative, and mood symptoms of schizophrenia. The overall findings suggested that patients who received adjunct music therapy, compared to

those who did not, had significantly better treatment outcomes in negative and positive symptoms and mood symptoms. Furthermore, treatment effects on symptoms were positively associated with the entire course of illness, suggesting that music therapy is valuable for schizophrenic individuals with a chronic path. Hadsell (1974) noted that music therapy could be used to allow patients in a psychotic state to reestablish contact with reality, provide adaptive coping skills for illness management, and facilitate recovery to normal functioning. Hadsell also suggested that music therapy could prevent further psychotic breakdowns from occurring. In addition, music temporarily assists patients in suppressing hallucinations and redirecting them to present moment thoughts and experiences (Naukkarinem, 1984). In summary, music therapy is a useful therapeutic tool, when used in conjunction with traditional psychotherapy, to manage positive and negative symptoms related to psychotic disorders. By decreasing symptoms of psychosis, patients may have an increased ability to engage in treatment.

Minimizing dropout rates and increasing adherence to treatment is an essential aspect of providing effective treatment. Hannibal and colleagues found low drop-out rates in patients with schizophrenia who were undergoing music therapy treatment over a yearlong observation (Hannibal, Pedersen, Hestbaek, Sorensen, & Munk-Jorgensen, 2012). These findings suggest patients can adhere to treatment and develop a working alliance with the music therapists, despite psychiatric limitations.

Mood disorders. Music therapy is an effective adjunctive treatment to alleviate depressive symptoms across various populations. Gok, Yaman, Orak, Saglambilen, and Aydin (2017) utilized music therapy in a nursing home for elderly adults. They found that those who engaged in music therapy for eight weeks experienced significant decreases in levels of depression and systolic blood pressure. The researchers suggested music therapy can be utilized

to treat symptoms of depression such as lower energy, anhedonia and control physiological parameters in older populations. Other researchers (Zhao, Bai, Bo, & Chi, 2016; Chan, Chan, Mok, & Kwan, 2009; Werner, Wosch, & Gold, 2017) concluded music therapy could be moderately helpful in reducing depression symptoms, blood pressure, and respiratory rate in older adults.

Researchers have also explored how music therapy can be used to treat depression in adolescents. When compared to traditional treatment, adolescents and teenagers responded more readily to music therapy and were more likely to engage in treatment (Hendricks, Robinson, Bradley, & Davis, 1999). During the study, music therapists used a range of techniques including music paired progressive muscle relaxation, sleep hygiene, and discussions based on music listening paired with emotional experiences and memories. Furthermore, the researchers indicated music therapy was a viable alternative to traditional treatment and is useful in conjunction with conventional treatment (Hendricks et al., 1999). Given the research, music therapy appears to be a valuable tool to treat depression and can be tailored to the individual's needs.

Other studies have shown music and music therapy to be an effective intervention for anxiety and anxiety-related disorders. Thoma et al. (2015) found that even the introduction of music in a waiting room significantly decreased participants anxiety when compared to those who were waiting in silence for 10 minutes. Nilsson (2008) reviewed 42 studies on stress, anxiety, and music interventions. Across the majority of the studies, findings showed that using soothing music (60-80 beats per minute) altered emotional states and decreased anxiety. Choice of music is important because the music utilized in music therapy is selected to reduce anxiety, whereas some music can evoke and increase energy, anxiety, and stress.

Some researchers suggested that music enhances the activation and development of neural structures in the cortex, amygdala, hippocampus (limbic system), and hypothalamus (Boso, Politi, Barale, & Enzo, 2006; Fukui and Toyoshima, 2008; Hyde et al., 2009), which help to regulate autonomic and physiological responses to stimuli. Pavlov et al. (2017) tested the application of music therapy as a nonpharmacological intervention to treat anxiety in a sample of patients who experienced a thought disorder. Music therapy may be beneficial in the short term for a low-risk intervention to decrease anxiety. The results suggested that music therapy activates the same neural structures as medication, which creates a similar reduction in stress and anxiety (Pavlov et al., 2017).

Substance abuse. Throughout the United States, substance misuse and abuse have been a significant issue. In 2014, 12-month prevalence rates for addiction were 3% for alcohol and 1.9% for illicit substances (Center for Behavioral Health, 2015). Given these rates, only roughly 10% of those with a substance use disorder receive professional help with even lower treatment completion rates (Hohmann, Bradt, Stegemann, & Koelsch, 2017). Alternative therapeutic techniques, such as music therapy, have been utilized to treat substance use and abuse, but have yet to be thoroughly examined. This modality provides a new approach to self-expression, cooperation, and understanding sensorimotor experiences.

Hohmann et al. (2017), conducted a systemic review of the literature to analyze the effectiveness of music therapy on substance abuse related symptoms. This review included studies that examined the outcomes of music therapy and patients with substance use disorders in the following domains; motivation, depression, enjoyment, withdrawal/cravings, helpfulness, locus of control, participation, coping skills, anxiety, anger, sadness, and stress. Out of these domains, there were better outcomes when group music therapy was used compared to a control

group that received verbal group therapy in motivation, enjoyment, and locus of control. Furthermore, results showed that music therapy had similar effects compared to traditional psychotherapy in depression, withdrawal, and cravings (Hohmann et al., 2017). These findings suggest that music therapy is a viable therapeutic intervention to increase motivation in treatment and reduce mental health symptoms in those diagnosed with substance abuse or use disorders.

Cognitive deficits. Researchers have explored the usefulness of music therapy with individuals who have been diagnosed with intellectual and developmental disabilities. Thompson and McFerran (2015) examined the utility of music therapy with adolescents with profound intellectual disabilities. The study found that those who received music therapy over six months were slightly more communicative and music therapy also elicited more mutually enjoyable interpersonal encounters when compared to play therapy. In addition, music increased engagement in therapy and promoted communication and attentiveness (Thompson & McFerran, 2015). Results from this study suggest that an increase in engagement and attentiveness leads to better treatment outcomes.

In examining the use of music therapy to enhance cognitive performance, Xu et al. (2017) conducted a systematic review of music interventions on cognitive deficits in healthy older adults. Across all 10 studies, music interventions were found to be clinically beneficial in improving cognitive functioning, even though the majority of the studies did not reach statistical significance. The researchers suggested that the increase in cognitively stimulating leisure activities increased cognitive performance in older populations. Furthermore, the impoverished environments in long-term care institutions might contribute to lower cognitive scores (Xu et al., (2017). Therefore, these findings can be generalized to the sterile and impoverished environments of correctional and rehabilitative systems. Music therapy is used as an engaging

and energizing intervention that increases cognitive functioning through motivation and social engagement.

Motivation and self-esteem. Music can elicit an emotional experience that leads to self-exploration. Larson (1995) posited that music is a form of expression as people use it to gain knowledge about their internal processes. The term "musical identity" describes the interrelation between one's self-image and music (Lawendowski & Bieleninik, 2017). Like language, people use music to create identities and use this construct to evaluate the self. This evaluation leads to a sense of self or in other terms, self-esteem. Most often, people believe they either have positive or negative self-esteem. A person's self-esteem then directly impacts their ability to act or be motivated to respond should a hardship arise. Those who have a negative self-evaluation may have difficulties acting or being motivated to work and this becomes a problem. Self-esteem can create a sense of power and determination or the feeling of helplessness and hesitance.

Magee (2002) suggested music therapy can help shift an individual's perspective from a "disabled self-concept" to a more "able self-concept" or self-evaluation. Lawendowski and Bieleninik (2017) posit that music can create a structure for an individual's subjective experiences. This structure helps individuals to learn how to attain a sense of control by better understanding thoughts, feelings, and behaviors. As musical melodies ebb and flow so do thoughts and feelings; furthermore, "creating a song based on one's personal experiences provides a client a powerful sense of accomplishment and pride, boosting one's self-esteem and internal integrity" (Lawendowski and Bieleninik, 2017 p. 96).

Music therapy in psychiatric settings. Music therapy has been implemented throughout various correctional and rehabilitative settings. Silverman (2015) outlined how music therapy

techniques such as songwriting, lyrics analysis, and recreational drumming have been successfully used with adult psychiatric populations. Wigram, Pederson, and Blonde (2002) implemented a music therapy program in a Danish hospital, which yielded positive results with adult psychiatric patients. In order to create successful treatment outcomes, researchers recommended that patients must be able to attend therapy regularly, reflect verbally or musically, able to articulate goals for therapy and be willing to work on his/her problems. Wigram and colleagues (2002) also recommended that clinicians and staff should be aware of any risks associated with relapse of psychotic symptoms. Research has shown that music therapy can be an effective therapeutic intervention in psychiatrist settings and populations. However, research has yet to shed light on music therapies effective on those who are deemed incompetent to proceed.

Music Therapy through the Lens of Acceptance and Commitment Model

Acceptance and Commitment Therapy (ACT) is based on the belief that language is the core of human suffering and psychological disorders (Hayes et al., 2004). Hayes suggested that ACT is a contemporary behavior therapy that is based on philosophy, the functions of language and cognition, and behavioral change. The ultimate goal of ACT is to enhance psychological flexibility relative to one's chosen values by weakening fusion with personal narratives. Psychological flexibility is conceptualized through a six-dimension framework called the Hexaflex Model, with an emphasis on acceptance, cognitive defusion, flexibly present moment awareness, contextualized self, values, and committed action. It is hypothesized that exposure to music may help to facilitate competency restoration by overriding behavioral rigidity. It is important to note that the behavioral processes identified in the Hexaflex Model function together as an interrelated whole.

Flexible Present Moment Awareness and Contextualized Self

ACT attempts to promote present moment contact with experiential events and the situations occasioning them. This behavioral process may be facilitated by asking patients to observe and notice present moment events and experiences as they shift and change moment-to-moment. Being able to witness and describe what is occurring (action) helps undermine the reification of everyday experience so it can be experienced first-person immediate in its impermanence and insubstantiality (e.g., I am *thinking* this, I am *feeling* that, I am *hearing* this). This immediate experience also helps to defuse the individual from fixed and reified self-beliefs that support rigid responding. Experiential exercises facilitate present moment awareness and experiencing oneself as an ongoing process.

Music therapy creates a context for present moment focus, drawing and grounding one's awareness in the impermanent features of audible sounds. Techniques such as recreational drumming ask defendants to be mindful of their behaviors. In order to create a beat or specific sound on a drum, defendants need to focus on how their direct actions have a given consequence. For example, by hitting the drum head in the center, it can create a full sound as opposed to hitting the side of the drum head, which produces a different sound. By focusing on their direct actions and values, defendants may become more aware of how their behaviors impact their environments. Other examples of music therapy techniques that facilitate present moment awareness are music listening and lyric analysis. Defendants are asked to listen to songs while noticing the quality and range of the sounds, without placing judgment or evaluation on what they are hearing. Furthermore, defendants can be asked to listen for the silence between the notes and the words of a song. The use of expressive writing about the thoughts and feelings evoked by music can help to identify experiences brought into the moment and their relationship

to various response tendencies. A greater understanding of how the environment impacts thoughts and feelings can lead to an enhanced ability to behave more flexible.

In terms of court proceedings, as a defendant enters a courtroom, he or she is likely to experience powerful emotions. Music therapy can help to facilitate increased acceptance of experiential changes as they occur real-time. Exploring the impact of these feelings while relating them to values and committed action can help to create different ways of behaving. This can also extend to the defendant's willingness to engage in restorative services. Furthermore, when conducting music therapy, it would be essential to note the thought, and emotional changes that occur before, during, and after hearing a song. Defendants may have a better ability to recognize that the feelings are happening in that moment, which highlights that the psychological stress and fear will also change over time.

Acceptance. Experiential avoidance is a behavioral process organized around direct attempts to avoid, suppress, or escape certain psychological events, even when doing so becomes self-defeating and comes with a significant psychological cost (Hayes et al., 2004). There are times when defendants are not engaged in competency restoration treatment because they are attempting to avoid potential consequences such as going to court, being convicted, or going to prison. Being convicted of a crime is likely to create feelings of shame, guilt, embarrassment, fear of losing significant relationships, and a loss of safety. Therefore, many defendants attempt to avoid situations that would evoke such aversive feelings e.g., "I can avoid going to court/prison if I continue to be incompetent. Therefore, I will not participate in the treatment that will make me competent." Overall, trying not to think about something only brings the unwanted conceptual target to mind.

Music therapy may help defendants learn to accept what they are currently unwilling to allow as their experiential reality. Techniques such as lyric analysis and songwriting can help to promote the idea that experiencing the entire range of emotions is an undeniable and healthy part of life. Lyrics and music can elicit feelings of sadness, loss, anxiety, happiness, joy, confusion, and much more. A discussion of the lyrics should focus on how the artist is expressing, accepting, and acting on his or her emotions. For the artist to move forward and create a meaningful song (committed action), they must accept and experience the emotion. Songs such as *Folsom Prison Blues* by Johnny Cash can facilitate discussion of accepting what feels unacceptable and uncomfortable. Furthermore, by denying the reality of being incarcerated and the feelings associated with that event, the defendant continues to create his or her own suffering. Songwriting may help to determine what a defendant is avoiding and the effectiveness of their strategies to solve the problem. By accepting reality and the consequences that are involved, defendants may engage in more meaningful and effective behaviors that work towards coming into contact with what they have been trying to avoid.

Cognitive Defusion. The notion of cognitive fusion describes a situation wherein a particular verbal stimulus exerts strong stimulus control over responding to the exclusion of other, perhaps more constructive, sources of contextual control. For defendants, they may start to think “I am worthless,” or “I am a terrible person” because they were processed into the judicial system (event). By thinking they are a worthless or a terrible person, this narrows the individual’s behavioral repertoire. If defendants believe they are worthless, then they may be more likely to behave in self-defeating ways. This perception of self-worth may cause social disengagement and unwillingness to achieve goals. Additionally, those who believe "I am

incompetent because I am in a competency restoration program" will likely ascribe a personalized meaning of incompetence (stupid, dumb, idiot, etc.).

Music therapy may help promote competency restoration by working to defuse the psychological functions of reified ideas about oneself, such as thinking that one is a failure or a diminished person. Recreational drumming may be useful in this regard. Though challenging, most people are capable of creating music, especially when supported by others. Recreational drumming can help defuse a defendant's thoughts of incompetence, stupidity, and worthlessness by providing real-time feedback from their environment. As defendants begin to hear the music they are creating, they may feel empowered and motivated. The defendant could also put their current life-situation, fears, and vision for a new life to words and sound, thus helping to defuse unwanted self-referential thoughts and ideas about self-identity and expand their psychological horizons.

Values and Committed Action. As an ACT sensibility, values refer to evolving actions that bring about meaning, even in the very midst of hardship and adversity. Valued action is ongoing where the core reinforcers for that activity are found in action itself, not in some prescribed outcome from that action (Wilson & Dufrene, 2009). Values reflect leading principles that motivate constructive behavioral engagement in contexts of action throughout life. Hayes (2004) suggested that for an individual to face a psychological fear or obstacle, there needs to be a purpose. Values help to provide the direction and momentum to create a more meaningful life. Some examples of values are education, family, relationships, knowledge, health, and religion. People differ in their values and also have different perspectives concerning a specific value. The importance of values is committing to actions that align with what is considered most important, even when the consequences (psychological or real fears) are difficult to face.

Music therapy can help those deemed incompetent to proceed to come into contact with their values. For example, music therapy can include an ACT exercise of writing a eulogy. This exercise requires the defendants to write a song that is a representation of their life. This activity may help defendants to see what they value. Values such as respect, justice, and family can have a direct impact on how they are behaving in the present moment. A part of the exercise would be facilitating a discussion about their current actions and how they are acting to honor their values, regardless of outcome. Many individuals in the correctional system focus on injustices that occur to them, often highlighting the importance of being treated justly and fairly. Exploring how they can act in honor of this value could directly impact how they behave in the judicial system. If an individual is more likely to engage and work with their defense counsel, they are also fighting for and working for a fair and just outcome, whether it be a dismissal or conviction. In ACT terms, this is considered committed action.

Hayes (2004) suggested that committed action is acting on one's values and goals while anticipating and making room for psychological barriers. Committed action is not about the outcome. Instead, it places emphasis and importance on the actions taken to honor one's goals and values. If a defendant's values are family and relationships, taking actions towards those values will lead to more effective means of action. Through lyric analysis and songwriting, music therapy can help to facilitate discussions of what committed action looks like, depending on the value. Songs such as *Get Up Stand Up* by Bob Marley (values of rights and justice), *I Will Survive* by Gloria Gaynor, *You Can't Always Get What You Want* by Rolling Stones, and *Ain't No Mountain High Enough* by Marvin Gaye and Tammi Terrell (value of family and relationships) can help facilitate discussions about facing obstacles and barriers and acting in honor of values.

Overall, the goal of acceptance and commitment therapy is to increase psychological flexibility to help the individual pursue a values-chosen life. Those who are experiencing anxiety or depression about being in the criminal system may feel more empowered by focusing on their actions, rather than the consequences. Music therapy can help to facilitate competency restoration by increasing awareness, a sense of control over one's actions, and motivating defendants to behave in ways that align with their values. A defendant may be more willing to fully engage in restorative services because it works towards being reunited with their family and loved ones. Also, it may yield better outcomes for justice as they are willing to work with their attorneys to aid in their defense. Furthermore, if a defendant is committed to action, he or she will be more willing to learn about courtroom procedures and act appropriately in the courtroom, as it aligns with their values of dignity, respect, and justice.

Conclusion and Future Study

With the increased number of referrals for competency restoration services and the continued financial constraints of state mental hospitals, providing effective therapeutic services has become imperative. Offering a wide range of effective services can decrease the time needed to attain competency, which will reduce the wait time for restorative services. Ultimately this could lead to a reduction on the financial impact of housing defendants in state hospitals and jails. Furthermore, decreases in wait time will help to treat defendant's mental health symptoms faster, which will increase their amenability to treatment.

By introducing music therapy into jail-based and hospital-based competency restoration programs, defendants may be more willing and prepared to engage in treatment, as it facilitates psychological flexibility in service of restoration for life without bars. For those who are concerned about participating in traditional psychotherapy and psychoeducation, they may view

music therapy as less intimidating and anxiety provoking. Often, traditional therapy requires patients to be vulnerable and open when discussing personal challenges. Music therapy evokes the same vulnerability through unique and indirect strategies. Creating and making meaning of music can elicit the same emotional responses as talk-therapy, but the individual may not be fully aware that they are sharing their experiences. Furthermore, individuals in group therapy are often asked to discuss their struggles with strangers. Analyzing lyrics and sharing their experiences with music can help to foster a safe environment and build rapport amongst the group members.

The majority of theories of treatment suggest a clinician should meet the client where they are currently located in their life-span development. This starting point often means that some individuals are not necessarily ready to fully engage in more traditional talk therapy. Furthermore, it may provide a reparative reintroduction to psychotherapy, as some people with mental illness have negative experiences in therapy. Additionally, if defendants are more willing to engage in music therapy, staff and clinicians can begin to create rapport, therapeutic relationships, and a more fulfilling environment. The sterile environments of forensic state hospitals and jails do not facilitate engagement with the patients or inmates. Music therapy can be used to foster such cognitive flexibility by increasing participation in leisure activities that require higher levels of thinking.

It is important to note that music therapy is not a replacement for other forms of interventions, such as psychotropic medications, traditional psychotherapy, or psychoeducation, in competency restoration programs. Psychotropic medications are an essential component to competency restoration programs and a focus on core values may help to increase willingness and compliance with medication protocols over a long period of time, thus aiding the restoration

process. Music therapy may help to facilitate cognitive functioning and engagement in competency restoration programs. Research shows that music therapy can decrease symptoms of mood disorders, instill a sense of control and motivation, and symptoms of substance use disorders; however, it yields better results when used in conjunction with traditional psychotherapy (Silverman, 2015). Future research should explore the application and utility of music therapy in competency restoration programs. It is important to examine the patient's engagement in treatment, motivation, experiences of mental illness, and coping skills when provided with music therapy in conjunction with traditional restorative services compared to patients who do not receive music therapy. These results could highlight the utility and applicability of music therapy in competency restoration programs. The ACT Hexaflex Model may provide a detailed account of how music therapy can treat experiential avoidance in restoration defendants, so the clinical utility of such an approach remains an empirical question. Overall, more empirical research is needed to examine the efficacy of music therapy within the domain of competency restoration.

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Appendix A

Competency Vignette

County Police detained John Wick after he was accused of robbing a local liquor store. Police recovered footage of the robbery and identified John as the suspect. In the footage, the robber was not wearing a mask, and his face can be clearly seen. The robber held a gun up to the cashier and demanded money. Police also noticed that the robber placed his bare hand on the counter. In the video, customers of the store watched as the robbery occurred. The robber was then seen getting into a white Honda Accord with the license plates covered. The cashier stated the robber was seen speeding away from the scene. The police reviewed the video footage of the robbery and determined that John Wick committed the crime. When police arrived at John's residents, there was a white Honda Accord parked outside.

After reading the paragraph above, answer the following questions.

What physical evidence can be used against John:

_____
_____
_____
_____
_____

What types of witnesses can testify in this case? Who are they?

_____
_____
_____
_____
_____
_____

What crimes could John be charged with? What types of sentences could he receive?

_____
_____
_____
_____
_____

What is John’s best plea option? What makes that his best option over other pleas?

_____
_____