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Examining CBT with Music as an Early Psychosis Intervention: A Critical Review of the

Literature

Capstone Thesis

Lesley University

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Andrew Maher

Music Therapy

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Abstract

This critical literature review investigates the use of music therapy and cognitive behavioral therapy-based treatments for use in early psychosis intervention with adolescents and young adults. It examines the format of cognitive behavioral therapy for psychosis (CBTp), music therapy, and cognitive behavioral music therapy (CBMT) treatments and the effectiveness of the treatments in reducing symptoms of psychosis. The literature reviewed consists of peer-reviewed journals, books, essays, and research studies that address the theory, structure, application, and outcomes of treatment for psychosis in first-episode cases. The literature is organized by introducing the presentation of first-episode psychosis, then by review of CBTp, music therapy, and CBMT treatments. The discussion addresses the strengths and weaknesses of the literature and calls for further research to expand the potential for a composite early intervention CBMT treatment for psychosis in first-episode patients.

Keywords: music therapy, cognitive behavioral therapy, treatment/intervention, first-episode, psychosis

Author Identity Statement: The author identifies as a straight, white, cisgender man. This author acknowledges he is living on Massachusetts and Wampanoag land.

Examining CBT with Music as an Early Psychosis Intervention: A Critical Review of the Literature

Introduction

People with first-episode psychosis who used EPI (Early Psychosis Intervention) services had mortality rates that were four times lower than those with first-episode psychosis who did not use these services, as well as better outcomes across several health care system indicators. These findings support the effectiveness of EPI services for the treatment of first-episode psychosis in the larger context of the overall health care system. (Anderson et al., 2018, p. 1)

The seriousness of psychosis cannot be understated. The relationship between early intervention and treatment on mortality outcomes evidences the importance of recognizing and treating psychosis. The aim is to initiate treatment of the earliest signs and symptoms to minimize the impact of a psychotic episode. The DSM-5 characterizes psychosis with symptoms of false sensory experiences or hallucination, delusions, loss of motivation or pleasure, disorganized thinking and behavior, and cognitive impairments (APA, 2013). Psychosis can be considered a feature of multiple psychiatric disorders. Psychosis is considered a primary feature of schizophrenia, schizophreniform disorder, brief psychotic disorder, and delusional disorder. These disorders can also include bipolar disorder, major depressive disorder, substance-induced psychotic disorder, obsessive-compulsive disorder, and a series of neurological conditions that can be associated with psychosis as a secondary feature. The age range of adolescence to young adulthood, or 16-24, is the primary range of onset of psychotic symptoms and for some their first episode of psychosis. This is a vulnerable time for young people with frequent change and a

rotating door of stressors. This is also a time of great resilience. Young people experiencing the early symptoms of psychosis can reap the most benefits of early treatment.

In the field of music therapy practice, continued development and refinement are crucial to the effectiveness of treatment. There is a good deal of studies on the effectiveness of music therapy for people with schizophrenia and schizophrenia-like disorders that show a positive effect on one's global state (Geretsegger et al., 2017). This thesis draws connections between cognitive behavioral therapy for psychosis and outcomes of music therapy for severe mental illness. This study explores the presentation of psychosis in adolescents; the use of music therapy in adolescent mental healthcare; the theory, effectiveness, and use of cognitive behavioral therapy for psychosis; and music therapy for psychosis. The purpose of this research is to bolster the field of research for the use of music therapy interventions in early psychosis intervention. It is hoped that this literature review will lead to the development of an evidence-based, structured model of cognitive behavioral music therapy for psychosis for use as an early psychosis intervention with first-episode adolescents and young adults.

Method

Through a critical review of the literature, I pursued an understanding of interventions for treatments of psychosis in use with young adults and adolescents with early warning signs or a first episode of a psychotic episode. Information regarding interventions for psychosis symptoms utilized in a partial hospitalization setting was highlighted as the most current applicable data. Literature was also collected and reviewed on current music therapy and cognitive behavioral therapy interventions for psychosis and similar disorders.

The literature review incorporates presentation, perception of psychotic symptoms, and treatment across cultures. A classification of psychosis and psychotic symptoms (including

diagnoses found in the DSM-5; APA, 2013), assessments, and current evidence-based treatments are first addressed.

The databases accessed for literature collection included: (a) the Lesley Library database, (b) the UMass Lowell Library database, (c) Google Scholar, and (d) various sources restricted by peer review. All other sources were from printed text, ebooks, organization websites, and various sources that require citation. The majority of collected sources were published within the range of 2003-2020, except for one outlier study published in 1992. Searches in the databases included keywords such as (a) music therapy, (b) adolescent(s) / teenager(s), (c) psychosis, (d) cognitive behavioral therapy (for psychosis) and CBT(p), (e) short-term and partial hospitalization, and (f) combinations of these keywords using boolean operators.

In library databases and Google Scholar, keyword searches yielded a variety of results based on the combination of keywords. Searches including “music therapy,” “psychosis,” and at least one other keyword included results that were highly apposite to the literature review. Search results including “partial hospitalization” and “adolescents” had a similar trend. Sources from these databases were collected in a folder based on their relevance to the keywords. The folder was then sorted by topic and inapplicable studies and publications were removed. Collected and applicable sources were cited and compiled into a list. The resources were then plugged into the thesis outline according to the areas in which they will provide evidence, context, or data.

Resources were narrowed to focus on four main subject areas: 1. Clinical definitions and recognition of psychosis, 2. Cognitive behavioral therapy for psychosis, 3. Music therapy and severe mental illness, and 4. Connections between CBT and music therapy. Information collected from the resources was analyzed for connections in theory, structure, and themes. This

thesis seeks to lay a literature framework for the future development of cognitive behavioral therapy for psychosis with music therapy with adolescents/young adults.

Literature Review

Psychosis and the DSM-5

Psychosis is a symptom. Often, with the prevalence of stigma about severe mental illness, “psychosis” becomes a faulty synonym for true diagnoses, like schizophrenia. The Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (APA, 2013) describes psychosis to be an episodic loss of contact with reality resulting in delusions, disorganized thinking or behavior, and/or hallucinations. This mix-up of terminology can be understood when compared to symptoms of schizophrenia, which includes all of the symptoms of psychosis but includes additional positive or negative symptoms and catatonic behavior (APA, 2013). This overlap in symptoms exists because psychosis is recognized as a symptom of much of the schizophrenia spectrum and other psychotic disorders. The DSM-5 (APA, 2013) broadly describes the Schizophrenia Spectrum and Other Psychotic Disorders as "defined by abnormalities in one or more of the following five domains: delusions, hallucinations, disorganized thinking (speech), grossly disorganized or abnormal motor behavior (including catatonia), and negative symptoms " (p. 87). Psychosis is also recognized as a symptom that can present itself as a side effect of certain prescription medications, develop from some medical conditions, substance use disorders, and even sleep deprivation (APA, 2013).

The three key features of psychosis include delusions, hallucinations, and disorganized thinking (or, speech). Delusions are rigid beliefs that one will refuse to accept the denial of despite contradicting evidence (APA, 2013). Delusions can be broken down by type of delusion, including examples like grandiose delusions where an individual believes they are exceptionally

famous or wealthy, or delusions of control where an individual believes that an outside force is in control of their body (APA, 2013). Hallucinations are false sensory experiences that occur without actual external stimulation of the sense. The most common form of hallucination is auditory hallucinations that present as voices, either familiar or unfamiliar, that differ from an individual's thoughts (APA, 2013). Disorganized thinking, also recognized as disorganized speech, can be recognized by an individual speaking in loose associations from one unrelated topic to another. In extreme cases, speech may become incomprehensible.

Before one meets the criteria for schizophrenia or a psychotic disorder, they will typically show several warning signs in their behaviors. According to the National Institute of Mental Health (NIMH, 2016), early warning signs of psychosis can include a “worrisome drop in grades or job performance, new trouble thinking clearly or concentrating, suspiciousness, paranoid ideas, or uneasiness with others,” social withdrawal, or isolation, unusual and “overly intense new ideas, strange feelings or having no feelings at all, decline in self-care or personal hygiene, difficulty telling reality from fantasy, and confused speed or trouble communicating “ (para. 1). Research conducted on the prevalence of psychotic symptoms estimates that symptoms are prevalent at a rate of 5-8% in the general population, with estimates that young people are at a higher rate (Stevens et al., 2014). Large, population-based studies surveying psychotic symptoms among adolescents have found rates of 9%–14% in interview-based studies and rates greater than 25% in some studies using self-report questionnaires (Stevens et al., 2014). Schizophrenia's onset is generally between the ages of 14-35 years, with early-onset (adolescent-onset) being within 13 and 18 years, but psychotic symptoms in childhood and adolescence more often accompany other psychiatric conditions like bipolar disorder, post-traumatic stress disorder, or major depressive disorder (Stevens et al., 2014). An unexpectedly profound correlation between

auditory hallucinations and suicide attempts was found in a longitudinal, questionnaire-based study on suicide prevention in high-school students; 34% of students who reported psychotic symptoms reported, at minimum, one suicide attempt (Stevens et al., 2014).

Few patients receive emergency treatment for psychosis, and the delay in treatment can range from 4-50 weeks after the first episode for a variety of reasons, including the availability of mental health resources, socioeconomic factors, cultural attitudes towards mental illness, and an individual's own attitudes and beliefs on their mental health (Stevens et al., 2014). It is important to seek help when noticing these changes in behavior in a person, especially if they begin to intensify or do not go away. It is recommended by the NIMH (2016) to consult a mental health professional should someone exhibit several items on this list. Early treatment of psychosis increases the chance for a successful recovery and symptom management.

Treatment: Cognitive Behavioral Therapy for Psychosis

People with unmanaged or untreated mental illness tend to be poor, socially isolated, unemployed, and at risk of victimization (Margison & Davenport, 2008), with those who have psychotic symptoms at an increased risk. Two methods exist to identify “patients at risk using the ultra-high risk (UHR) criteria and the basic symptoms approach” (Philips et al., 2008, p. 117). UHR criteria consider genetic factors, history of symptom presentation, attenuated psychotic symptoms, and brief limited intermittent psychotic symptoms to assess the risk level of patients (Philips et al., 2008). The basic symptoms approach is based on “the Early Initial Prodromal State and the Late Initial Prodromal State. These are characterized as subjectively experienced abnormalities of cognition, perception and attention,” which meet the basic criterion of psychotic symptoms to assess risk (Phillips et al., 2008, p. 119).

In research on psychotherapies for psychosis, Lewis (2008) remarked that the future of

the mental health sciences consists of developing both pharmacological and psychotherapeutic applications of gene, brain, cognitive, affective, and social studies to treat this neurological deficit. Impairments in social cognition and functioning are present even before the onset of schizophrenia and worsen during the later phases of the illness (Lewis, 2010). The importance of treatment for patients with psychosis is stressed by Larsen (2008), saying “it ought to be the right of every patient in the world who has first-episode psychosis to receive treatment, just as every patient who suffers a cardiac arrest has the right to acute treatment” (p. 86). Each patient is a unique person and recovery by person is not the same. As each person is made up of their identity, ethnic background, academic level, family history, socioeconomic level, and more, symptoms at first presentation vary by person, too (Miller et al., 2010). Patients experiencing their first episode may struggle with their condition for reasons of societal stigma on people with severe mental illness; they may be angry, sad, or hopeless to live up to their internalized ideal selves (Miller et al., 2010). Until a patient is stable, treatment of patients with psychotic symptoms requires an empathic, non-judgmental, accepting attitude from the counselor. Treatment for psychotic symptoms, especially for first-episode patients, must be built on insight, adherence, and abstinence, and integration of the service must meet individual needs (Miller et al., 2010).

Cognitive behavioral therapy for psychosis (CBTp) is an evidence-based intervention for psychosis and psychotic symptoms that has been used widely since clinical effectiveness trials were first published in the 1990s (Landa, 2017). “CBTp was developed by Dr. Aaron Beck,” considered to be the “father of cognitive behavioral therapy,” whose first documented and published use of CBTp was in 1952 during “outpatient treatment of chronic schizophrenia patients” (Landa, 2017, p. 4). Developed from cognitive behavioral therapy, CBTp expands the

concentration on an individual's thoughts, behaviors, and emotions. Reducing distress associated with psychotic symptoms and improving functioning are features of the treatment (Hardy, 2017). Research has shown CBTp is a clinically validated intervention for psychosis, with research that indicates a 20-40% reduction in psychotic-related distress, and a 50-65% reduction when paired with medications (Landa, 2017, p. 4). There are three essential features of CBTp:

1. The collaborative development of a shared formulation to inform the understanding and maintenance of psychotic symptoms and to aid in making sense of these experiences
2. Normalization of the psychotic experience to address the stigma that often is associated with psychosis
3. Acceptance of psychotic symptoms, which highlights the primary goal of this approach to reduce distress relating to the symptoms, rather than attempting to alter the occurrence of the symptoms. (Hardy, 2017, p. 3)

These three features inform the five phases of working with a patient in CBTp: 1. engagement and befriending, 2. assessment of experiences, 3. formulation development, 4. application of intervention and skill building, and 5. consolidation of skills (Hardy, 2017). Clinical application of CBTp can be done in individual or group settings. Group work for young people with first-episode psychosis may see a number of benefits. Participation in group sessions can “reduce isolation, build confidence, encourage peer support, and provide psychoeducation” (Woodhead, 2008, p. 225). The group format with individuals facing similar issues has been found to increase “the value of being accepted by others and emphasized the instillation of hope and the increased sense of optimism through seeing others further along in their recovery” (Woodhead, 2008, p. 228). For participants who have not only just experienced their first episode

of psychosis but are also participating in therapy for the first time, group therapy encourages them to step out of their comfort zone, give and receive support, try new activities, and can even be fun (Woodhead, 2008). Woodhead (2008) acknowledges that the possibility for first-episode treatment groups to form is low but wrote that the first-episode time frame is a crucial period for treatment that needs further study.

Research collected by qualitative analysis of group sessions with individuals with psychosis examined how individual factors influence treatment outcomes in CBTp groups (Menon et al., 2015). In the CBTp groups studied, patients reported improved quality of life, improved self-esteem, and an increase in self-efficacy (Menon et al., 2015). Several group and individual factors were found to be notable in impacting treatment outcomes. Patients were found to be more willing to explore the impact of their thoughts and behaviors on the depressive/non-depressive psychotic anxiety symptoms because of socializing within the group CBTp model (Menon et al., 2015). Neurocognitive decline was found to be a contributor to a decline in retention, comprehension of core concepts, and how individuals apply these to their symptoms (Menon et al., 2015). Personality type has also been connected with service utilization and clinical outcomes. Agreeableness, optimism, and cohesion were found to be linked to positive treatment outcomes (Menon et al., 2015). Menon recognized a particular benefit of group settings with rolling intakes; Individuals can observe and participate in symptom discussions to build confidence in identifying with the terminology used by established group members. In working with these individuals, the authors acknowledge differences in symptom presentation existing between group members as a potential for rupture in the group and therapeutic relationships (Menon et al., 2015). Rosado (2019) suggested finding creative solutions to negotiate therapeutic ruptures to avoid being rolled into a client's delusional

framework. From their research, Menon et al. (2015) highlight how successful group CBTp interventions find ways to discuss the specifics of delusions and find shared group goals, even when clients' insight of their symptoms is minimal.

Research on the cultural adaptivity of cognitive behavioral therapy for psychosis is still in its infancy. A study conducted on culturally adapted CBTp (caCBTp) compared to traditional treatments found that caCBTp was an effective treatment for culturally diverse populations in combination with traditional treatments (Naeem et al., 2015). Participants were recruited from two hospitals in Pakistan and were between 18 and 65 years old with a diagnosis of schizophrenia or a related disorder. CBTp was culturally adapted to a bio-psycho-spiritual-social model that is practiced clinically in Pakistan (Naeem et al., 2015). Adaptations to CBTp included a spiritual dimension in the formulation and understanding of the therapy plan; culturally appropriate homework assignments were assigned; folk stories relevant to local religious beliefs were used for clarification (Naeem et al., 2015). This study was the first CBTp trial conducted outside of the western hemisphere and showed promising results for the cultural adaptability of CBTp.

Music Therapy & Adolescents

Adolescents are still developing neurologically, emotionally, mentally, and physically (Halverson-Ramos, et al., 2019). Music therapy with adolescent mental health is evidence-based, multi-modal, inclusive of trauma-informed and wellness-based models of care, and meets the needs of adolescents of various ages and developmental levels (Halverson-Ramos et al., 2019). The clinical process of music therapy follows 1. Assessment, 2. Treatment Planning, 3. Evaluation. Music therapists may use a variety of assessment tools along with information gathered by other healthcare providers, teachers, parents, and/or caregivers (Halverson-Ramos et

al., 2019). Either individually or with a multidisciplinary team, music therapists develop individualized goals and objectives taking into account: 1. Therapeutic need(s), 2. Client's age and developmental level, 3. Physical and cognitive ability, 4. Individual trauma triggers (Halverson-Ramos et al., 2019). Regular evaluation of client progress and making necessary adjustments/modifications to the client's treatment plan are part of the course of treatment (Halverson-Ramos et al., 2019).

Engagement in the therapeutic process is a challenge that clinicians face that can lead to difficulty in the utilization of resources, participant retention, and comprehension of core concepts. Vanstone et al. (2016) developed and tested a questionnaire aimed at measuring the daily level of engagement with music for a participant with Alzheimer's disease. Their questionnaire was named the Music Engagement Questionnaire (MusEQ). This measure was designed to meet the need for an informant-based questionnaire to assess participants' daily levels of music engagement. In the first study, the authors "attempt to capture the multifaceted nature of music engagement while working within the conditions of what informants can report reliably" (p. 3) to capture the generalized reliability and validity of the measure. Three hundred and ninety-one participants were included in the first study, with 178 being informants and 291 being self-reported. The measure is made up of 35 items broken into six subscales: Daily, Emotion, Perform, Consume, Respond, and Prefer (Vanstone et al., 2016). The researchers found that this questionnaire had a high internal consistency. The researchers moved on to study two which evaluated their questionnaire's ability to appropriately measure a participant's daily music engagement through the reporting of an informant. Study two also explores whether MusEQ scores accurately reflect how a participant, or their informant, views their relationship to music and if the informant questionnaire is reliable for reporting for individuals unable to self-report.

Study two showed a strong correlation between the informants and the self-reported data (Vanstone et al., 2016). The only subscale that resulted in a substantial difference was the emotion category, where the self-report scored higher than the informant (Vanstone et al., 2016). Knowing how to quantify musical engagement for people experiencing cognitive decline is beneficial for research analyzing what would be considered “engaged in music” by the participants studied. In future research, the MusEQ can be adapted to measure engagement in populations experiencing cognitive impairment due to psychosis.

A study of client engagement in the treatment of substance abuse disorder, conducted by Dingle et al. (2008) examined how the level of engagement was affected by introducing music therapy to the group. Engaging participants that are in treatment remains a challenge, even though there are great quantities of effective treatments. The study was conducted over the course of 7 weeks, with weekly groups of cognitive-behavioral therapy supplemented by music therapy. The goal of adding the new variable of music therapy was to increase participant engagement in the substance abuse treatment program. At the end of each weekly music therapy session, an anonymous survey was taken by the participants to collect several pieces of data: patient attendance rates, patient demographics, and their perception of music therapy. In total, 24 surveys were analyzed with participants including 10 men and 14 women between the ages of 17 and 52 seeking treatment for misuse of alcohol, cannabis, or polydrug use (Dingle et al., 2008, p. 193). The enjoyment (or motivation) of the sessions remained consistently high over the 7-week period. Attendance for the full 7 weeks averaged 75% of participants and 83% of the group self-reported that they would “attend another music therapy session,” (Dingle et al., 2008, p. 193). When working with adults (ages 18 and up) with substance abuse disorders, engagement with music increases participant participation and facilitates feelings of belonging to a group.

Norwegian researchers, Krüger and Stige (2015), interviewed 15 young people (ages 18-23) who lived in a child welfare institution to develop a better understanding of their use of music in everyday life. This study regards music as a resource humans use for self-exploration. Music therapy, in the context of this study, refers to the relationship between activities and experiences of everyday life and experiences in music therapy sessions. Participants in music therapy groups participated in activities such as playing in a band and writing songs. Individual, one-to-one interviews were conducted with a dialogue process to meet the standards of a qualitative approach. Participants in this study included six boys and nine girls) living in a child welfare institution's aftercare program that looks to transition them to independent living. Interviews were conducted in two sessions, the first being structured and formal, and the second being relaxed and conversational. The study reports that the adolescents have experienced serious challenges in their life in the child welfare institution related to poor relationships with adults and that music may function as a resource for identity formation and community participation. The study informs us about the importance of positive adult/therapist interactions for efficient child welfare practices and that music may support group development, dialogue formation, and group collaboration.

In the study by Rosado (2019) on music therapy for inpatient adolescents, 14 adolescents in an inpatient crisis stabilization unit received group music therapy and were interviewed about their experiences. The interviews were conducted to understand how the music therapy sessions affected their recovery on the unit. Rosado focused on two questions for the study, "1. In what ways do adolescents describe their experiences of music therapy sessions during short-term crisis stabilization? 2. What themes regarding treatment benefit emerge, if any, and how do these themes relate to the inpatient milieu?" (p. 134). The participants of this study included 14

adolescent girls, aged 12-17, of a variety of racial profiles. The participants presented with a range of diagnoses, including major depressive disorder (and MDD including psychotic features), bipolar I, generalized anxiety disorder, post-traumatic stress disorder, attention-deficit/hyperactivity disorder, and disruptive mood dysregulation disorder (Rosado, 2019). Music therapy sessions at the inpatient unit included interventions such as active music listening, clinical improvisation, adaptive group music lessons, lyric analysis, and songwriting (Rosado, 2019). The researcher conducted interviews with each participant, asking open-ended questions about their experiences in music therapy groups. The interviews captured 13 themes of the teens' experience in music therapy sessions but were re-examined and narrowed to four core concepts: "1. music therapy affirms participant's strengths, 2. music therapy affirms coping resources, 3. music therapy integrates cognitive and affective processes, and 4. music therapy provides continuity of experience" (p. 139).

A study of the effects of a music therapy program on patients with psychosis in an emergency psychiatric ward expanded on the efficacy of music therapy treatment in promoting symptom improvement (Volpe et al., 2018). Participants were recruited from an acute inpatient ward and had to fulfill the inclusion criteria of a standardized diagnosis of schizophrenia, schizoaffective disorder, or bipolar disorder; negative history of head trauma with loss of consciousness, epilepsy, or substance abuse or dependence in the year preceding recruitment; age range of 18 to 65 years; written informed consent to participate; additional educational and mental state evaluation (Volpe et al., 2018). Researchers used measures of psychopathology and symptom severity at admission and at the end of their hospitalization to assess the effectiveness of music therapy against a control group (not receiving music therapy). Group sessions were conducted "bi-weekly according to the Benenzon model of music therapy" (Volpe et al., 2018. p.

3), which uses psychoanalytic concepts that focus on the interaction between music and sound in a nonverbal context. Sessions were conducted in 60 minutes with a maximum of 10 participants per group. Music therapy interventions utilized “included singing songs, writing songs, and improvisation” (Volpe et al., 2018, p. 3). The researchers found that participants who attended structured music therapy groups reported greater clinical and psychosocial improvements in comparison to patients who did not attend groups. The study demonstrated how music therapy can affect clinical symptoms and psychosocial functioning with a relatively low number of music therapy sessions in an inpatient setting (Volpe et al., 2018). The small sample size of all women and the impossibility of follow-up post-discharge make generalizing the results outside of short-term hospitalization speculative at best. The study highlights how music therapy is a useful rehabilitative technique for patients with severe mental illness in short-term hospitalization (Volpe et al., 2018).

A quality of music therapy that bears the necessity to address in clinical practice is the meaningful moments that are created. Meaningful moments were spontaneous, unexpected, unpredicted, and not logically planned (Amir, 1992). In music therapy, meaningful moments were experienced in physical, emotional, intellectual, intuitive, and spiritual realms (Amir, 1992). These experiences are highly aesthetic and creative; They are viewed as very valuable and with great revelation (Amir, 1992). This experience is shared by at minimum two people: the client and the music therapist, the client and another group member, or the client and the group as a whole (Amir, 1992). Amir (1992) wrote that during meaningful moments, the two participants were “completely absorbed, fully there, yet lost in a state of timelessness” (p. 185).

Immediate and long-term changes came from insights that were experienced as a feeling or “shift” in their mind and/or body. Inner tension and distress shifted to feelings of relief and

peace after meaningful experiences (Amir, 1992). Amir (1992) stated the significance of therapists' cognitive and intuitive knowledge in determining the therapeutic direction and suitable treatment goals for their clients. The goal in the transpersonal realm, as Amir states, is to recognize the inner factors of the client that will hesitate or engage with meaningful moments.

Music Therapy & Cognitive Behavioral Therapy

A meta-analysis of research conducted by Silverman (2003) on the effect of music therapy and music-based treatments on psychotic symptoms indicated that both music therapy and music-based treatments are significantly effective in suppressing and combating symptoms of psychosis. Catatonic behavior was the easiest symptom to observe the effect of music therapy due to its observable nature, while general and cognitive symptoms had to be measured by self-reporting scales (Silverman, 2003). Data collected by self-report led to minor inconsistency in effect, which Silverman attributes to symptomology leading to lack of concentration and task completion. The data remained consistent in both long and short-term institutions, which Silverman believes can mean music can have an immediate effect on all types of patients. In the study, live and recorded music was shown to be effective in managing psychotic symptoms with no significant difference between the two (Silverman, 2003). Interestingly, the study found both participant preferred and therapist-selected music to be effective in psychotic symptom management (Silverman, 2003).

In later research, Silverman (2008) assessed the development of quantitative music therapy literature in comparison to quantitative CBT literature. Several studies affirmed that group CBT is both cost-effective and clinically effective in the treatment of psychotic symptoms. Group CBT was found to produce a significant change in symptoms and insight following treatment and these changes were maintained when followed up by researchers. Silverman

(2008) also gave credence to pharmacotherapy in conjunction with group CBT because pharmacotherapy alone does not aid in skill development and knowledge necessary for a successful transition back into the community and improved quality of life and functioning (Silverman, 2008). In the music therapy studies reviewed, music therapy interventions have shown positive results and reception by participants despite the smaller research base compared to cognitive behavioral therapy (Silverman, 2008). In previous research, Silverman (2003) pointed out that a great number of qualitative studies on music therapy treatment with schizophrenia and psychosis exist. In this study, Silverman (2008) noted the distinct lack of quantitative studies of music therapy research, especially in the collection of research on severe mental illness and psychosis. A gap currently exists in music therapy literature for research into a music therapy adapted CBTp with the potential for quantitative and qualitative data. In both studies, Silverman (2003, 2008) highlights the need for additional quantitative research on music therapy and schizophrenia/psychosis to bring the contributions of music therapy to the foreground.

Cognitive behavioral therapy and music therapy, known together as cognitive behavioral music therapy (CBMT) have been linked in empirical study as well as in clinical practice. CBMT is an approach to music therapy that emphasizes the patient's abilities and talents while providing a setting to practice and reinforce positive behaviors and thoughts (Hanser, 2015). Music therapy interventions such as "songwriting, lyric substitution, and improvisation" (Hanser, 2015, p. 167) are supported by clinical and studied evidence in mental health, medical, and substance use treatment. Literature on specifically CBMT (excluding comparisons of music therapy and CBT treatments) is diverse and has been studied with multiple populations in varying settings. A study on CBMT to reduce test anxiety found that participants reported

significantly lower anxiety scores than the control group (Ugwuanyi et al., 2020). The CBMT program was designed as a 12-week guided self-help group that was held once a week in 90-minute sessions with Nigerian secondary school students (Ugwuanyi et al., 2020). Groups followed a traditional CBT structure by following the themes of thinking, behavior, and emotions and by using structured CBT tools. The program ingrained music into all aspects of the CBT group therapy through critical listening, songwriting, music-making with instruments, and discussion of music used as reference (Ugwuanyi et al., 2020). In sessions one through three, familiarity and cohesion were developed between the facilitators and participants, and objectives were established and explained. In sessions four to seven, group members reviewed previous assignments and discussed activation and automatic thoughts. The eighth through eleventh sessions heavily implemented music therapy intervention in sessions and homework. Each week, CBT-related material was covered in performance and discussion using popular songs rewritten to include themes of CBT (Ugwuanyi et al., 2020). In the CBMT sessions, the music therapist helps “their clients achieve therapeutic goals through the development of the musical and therapeutic relationship” (Ugwuanyi et al., 2020, p. 6). The researchers found that CBMT sessions were significant in reducing test anxiety for the population, but that the design of the study only concludes that CBMT is effective within the present study (Ugwuanyi et al., 2020).

Hakvoort & Bogaerts (2013) studied the theoretical foundation for CBMT in forensic psychiatry. The researchers provided a CBMT model and explained the role of the music therapist and music in the treatment process. The significant portion to highlight in this research is the CBMT model. The model is as follows:

First, patient’s target behavior is assessed during music therapy; risk- and need-factors are compared to the primary indication. Secondly, patients are trained through musical

assignments to acquire new skills. Thirdly, musical assignments are employed to provoke musical and behavioral reactions of patients. Musical situations are created in order to stimulate patients to modify their behavior. The repetition of experiences helps patients to adjust more rapidly to new, often stress-enhancing, situations. (p. 195)

This process is similar in structure to the formatting of cognitive behavioral therapy for psychosis described by Hardy (2017). The common structural component of each remains CBT. The step-by-step process through the CBMT cycle of treatment supplied by the researchers exemplifies the practical and clinical application of CBMT. This cycle follows these steps

1. Patient is assessed for manifestation of risk- and -need-factors;
2. Behavior (skill) are trained;
3. Music therapist creates musical situation to influence affect;
4. Emotions are mimicked in patient;
5. Important musical moments might influence cognition;
- 6.

- Reaction channeled by applying new skills;
7. Good behavior reinforced by music and music therapist;
8. Repetition outside music therapy (Hakvoort & Bogaerts, 2013, p. 196)

and repeats the cycle as needed. The researchers noted several significant qualities of CBMT in forensic psychiatry. First, music provided a safe space where distance could be placed between real emotion and musically expressed emotion. This distance made treatment of difficult or dangerous emotions, cognitions, and behaviors attainable for patients (Hakvoort & Bogaerts, 2013). This safe space acted as a container for practicing new skills, either musical, CBT, or both, which could then be taken out into the real world. The application of CBMT in the forensic psychiatry setting gave critical context to the potential for an application of music therapy fused with CBTp. The researchers acknowledged music therapy's ability to support behavior modification but noted that research must still be conducted to investigate if music therapy is effective for forensic patients (Hakvoort & Bogaerts, 2013).

Discussion

This critical review of the literature sought to form connections between theory and clinical application of CBTp and music therapy for the purpose of forging an approach to first-episode psychosis treatment. Literature included in the review highlighted key theories, examined qualitative and quantitative studies' reporting on the effectiveness of treatments, and supplied frameworks of treatment approaches that hold potential as a reference for a cognitive behavioral music therapy for psychosis treatment approach. The application of music therapy theory to cognitive behavioral therapy has already found consonance in CBMT. Connections can be recognized between the CBTp and CBMT phases of treatment due to their common foundation of CBT. Finding a middle ground between these two variants of CBT that employs music therapy and psychosis treatment is not implausible due to this. CBTp, music therapy, and CBMT have each demonstrated effective clinical use in the studies reviewed. From the common thread in these interventions of effectiveness, in research and practice, emerges the possibility for greater efficacy from the amalgamation of the interventions. The hypothetical intervention created from this merger of theory and literature will be referred to as cognitive behavioral music therapy for psychosis (CBMTp).

The proposed phases of CBMTp as influenced by CBTp and CBMT follow 6 steps through treatment: 1. Befriending and therapeutic relationship formation, 2. Goal formation from assessment and expression of psychotic experiences, 3. Goal-driven music-making to influence formulation development, 4. Skill acquisition through engagement in music therapy interventions, 5. Reflecting on meaningful moments and reinforcement of skills, 6. Integration of skills into daily life functioning outside of CBMTp (Hakvoort & Bogaerts, 2013; Hardy, 2017). These phases follow the important milestones of CBT treatment while incorporating symbolic

expression of music therapy. Key features of CBTp remain intact while incorporating CBMT assessment, intervention, and evaluation. Expanding on the three essential features of CBTp noted by Hardy (2017), the proposed features to be at the core of CBMTp include:

1. Collaboration in the musical experience to inform maintenance of symptoms and promote a personal and shared understanding of psychotic experiences.
2. Comfort in expressing one's psychotic experience through verbal and non-verbal means despite the associated stigma.
3. Reduction of distress caused by psychotic symptoms through practiced models of acceptance.

The proposed features and phases of the CBMTp model require significant research before clinical application. The purpose of proposing this model for a music therapy early psychosis intervention is to encourage further clinical and analytical research into CBTp and CBMT. Future research can provide evidence for the future development of cognitive behavioral music therapy for psychosis.

Silverman (2008) addressed a disparity in the number of quantitative studies compared to qualitative studies in music therapy research. Since the publishing of Silverman's research, the gap has narrowed, but still quantitative research in music therapy falls behind. Specifically, a lack of qualitative research on cognitive behavioral music therapy presents an issue for an evidence base to formulate a theory for CBMTp. Concerning this, the inability to generalize results to the greater population of many of the studies reviewed creates another barrier to the clinical application of a CBMTp model. In either case, future research focused on increasing quantitative studies of CBMT in populations with psychotic symptoms will provide evidence and context around which the CBMTp model can form.

This thesis encourages music therapists, mental health workers (who operate using cognitive behavioral therapy theory), and researchers in both domains to further extend the literature base necessary for an approach to CBTp with music therapy intended for early intervention to evolve. The development of such an approach would raise participant retention and engagement rates in acute mental health programs, generate a greater reduction in psychosis symptom presentation in patients, and promote wider availability for treatment of first-episode psychosis. The literature supports the use of CBTp, music therapy, and CBMT respectively in their ability to reduce symptoms of mental illness and establish new skills that increase self-esteem and self-efficacy. CBTp's feature of the reduction of distress attributed to psychotic symptoms aligns with the effectiveness of music therapy's ability to improve psychosocial functioning with members of the same population. Young people experiencing the first episode of psychosis are a vulnerable population with which new and engaging treatments may prevent the later severity of mental illness. It is hoped that this study will encourage music therapists to continue to diversify their skill sets to meet the needs of these high-risk patients.

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THESIS APPROVAL FORM

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In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

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