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**The Use of Violin Family Instruments in Music Therapy with Individuals Experiencing
Acute Psychiatric Presentations: A Literature Review**

Capstone Thesis

Lesley University

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Specialization: Music Therapy

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Abstract

This literature review seeks to better understand the unique ways in which the four contemporary violin family instruments - violin, viola, cello, and double bass - can be used in music therapy with individuals experiencing mania, psychosis, and dissociation. In this paper, I explore the ways in which these four instruments have been used throughout Western music history and the different roles assigned to them by composers, as well as the ways in which they are used in music therapy today. I then explore the acute psychiatric presentations of mania, psychosis, and dissociation, and the treatments and goals that tend to be indicated for individuals experiencing each. Drawing from these two bodies of research, I infer ways in which each member of this unique instrument family can be used in the treatment of individuals with these presentations. Findings suggest that each of these instruments possesses characteristics or unique qualities that may lend themselves to music therapy with these individuals. The violin's acoustic perfection and brilliant, focused sound, the viola's acoustic imperfection and proclivity for sounds that resemble human speech, the cello's ability to firmly ground the player through its connection to the ground and the manner in which it is played, and the double bass's proclivity for supporting through its low tones and rhythmic stability, are among some of these characteristics and qualities. These inferences can be taken into consideration for future research into the use of violin family or other instruments in music therapy with individuals with acute psychiatric presentations.

Keywords: music therapy, violin family, mania, bipolar disorder, psychosis, dissociation

Author Identity Statement: I acknowledge my race, experiences, and privilege, and how they have impacted this paper. This writer identifies as a cisgender, White woman of mixed European ancestry, living in the Northeastern United States. In writing and researching this paper, I strived to remain conscious of how my experiences and privilege affect my voice and the way I view the world. I am privileged to have had the experience of studying and interacting with Western classical music and violin family instruments; without having had such experience, writing this paper would perhaps not be possible, as I probably would not have much of the knowledge about this music and these instruments that has been afforded to me through my studies of them. I am also privileged to have worked in service to individuals with acute psychiatric presentations, many of whom experience the negative impacts of stigma and marginalization that Western society imposes on those it perceives as mentally ill. Because I have not lived with these presentations, I acknowledge that I cannot fully understand the experiences of living with them, and I consciously sought out work by individuals who have indeed lived with these presentations while conducting this research.

The Use of Violin Family Instruments in Music Therapy with Individuals Experiencing Acute Psychiatric Presentations: A Literature Review

Introduction

Every musical instrument has unique characteristics and a unique sound to offer. When played with a bow, the vibration of its four strings excites the wooden body of a violin, producing brilliant tones rich in harmonics; these tones are very different than those created by a saxophone, which creates sound when its player vibrates the reed in its mouthpiece which then vibrates the air inside the instrument's brass body. Even within instrument families, where instruments produce sound the same way and share many qualities - such as physical structure, materials, and appearance - in common, each instrument produces a sound that is distinctly its own.

Music conveys messages, ideas, and intentions. It can tell a story, express emotions, or paint a picture in the mind's eye. Music carries meaning. When a composer writes, they do not arbitrarily choose an instrument to play the notes they have written, nor do they choose the instrument they believe will most easily play the music: rather, they choose the instrument that can best give voice to the meaning the music carries. When Johannes Brahms wrote his Opus 120 No. 1 and 2 in 1894, the two pieces were intended to be played on the clarinet. Later in life, however, he rearranged these pieces to be played on the viola; many insist that the radiant warmth of the viola makes it even more appropriate for this music than the cool, smooth timbre of a clarinet (Freyhan, 2010). Of all the instruments Brahms could have chosen, why these? What about the clarinet made him feel as though it was the instrument most indicated? And what later made him feel as though perhaps the viola - a different instrument in every way, from timbre to materials to appearance - was also indicated?

This idea of a particular instrument or instruments being particularly well suited for a certain musical role or context applies in music therapy as well. Music therapy can be defined as the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship (American Music Therapy Association, n.d.). As a Masters-level music therapy student, I have my own working definition of music therapy: it is the clinical use of music in service of others. When music therapy is happening, music is being used to support a person, group, or community in some way. Music therapy always has a clinical goal. In much the same way that a composer chooses the instrument they think is best suited to convey the music they have written, a music therapist should carefully consider which instrument is best suited to support their client(s) and achieve that clinical goal.

While every musical instrument has unique inherent capabilities and characteristics, of particular interest to me is the modern day violin family of instruments, which comprises the violin, viola, cello, and double bass. Developed in the 16th century, these instruments - though differently pitched and acoustically proportioned - all share in common a physical makeup, tonal quality, and way in which they produce sound. These instruments hold a unique importance in Western music history, and are among the main members of the Western symphony orchestra. While they are used commonly in contemporary and classical Western music, their use in music therapy is notably less common. It is my belief that looking back on these instruments' roles in Western music history and the way in which composers used them can shed light on their potential as music therapy instruments. What can we learn from the way composers used these instruments, and how can we use that knowledge to inform the way we use them to achieve music therapy goals?

One such client group with whom music therapy is used is individuals with psychiatric illnesses and disorders. Mania, psychosis, and dissociation are three psychiatric presentations that are seen often in acute psychiatric settings, and individuals with these presentations can and do benefit from music therapy. How might violin family instruments be used in music therapy with someone who is experiencing a manic episode? For someone who is experiencing psychosis? For someone who is dissociated? In what ways might these instruments be uniquely suited to help these individuals meet clinical music therapy goals? These are the questions that this capstone thesis hopes to answer.

This thesis is a literature review that will seek to explore the use of modern violin family instruments in music therapy with individuals with these three psychiatric presentations. There will be three main sections to my research. Firstly, I will research the modern day violin family of instruments, including their physical makeup, how they have been used throughout Western music history, and how they have been used in music therapy. Secondly, I will research mania, psychosis, and dissociation, and some of the psychopathologies which these presentations tend to accompany, focusing on interventions and techniques - both music-based and not - that are indicated for each. Lastly, I will draw from these two bodies of research as I explore the ways in which I believe violin family instruments can be used in music therapy to support individuals experiencing these psychiatric presentations.

There is already research supporting the benefits of using particular instruments in music therapy. Loombe et al. (2015) have explored the strengths and uniquenesses of many different instruments - including some that are used less often in music therapy - and how music therapists can best make use of them. A bibliographic study conducted by Gilboa and Almog (2017) analyzed fifty-three instances in which a music therapy client intentionally chose a certain

instrument, exploring both why the instrument was chosen and how the choice impacted the music therapy experience. A capstone thesis by Dagger (2019) also found that music therapist training and relationship to the instrument in use impacted the level of therapeutic attunement - or connection and understanding between therapist and client - within the therapeutic relationship. In my own research, I have found literature that explores the use of violin family instruments in music therapy; however, literature that explores the use of these instruments specifically with individuals with acute psychiatric presentations is markedly less abundant. It is my goal to draw upon the literature on the use of violin family instruments throughout Western music history, and upon the literature on best treatment practices for individuals with acute psychiatric presentations, in order to infer how the violin family might be used in music therapy with individuals experiencing mania, psychosis, or dissociation.

If a music therapist can better understand how these instruments can be used with different music therapy clients, perhaps they can more effectively serve those clients. While this paper will specifically be exploring the use of violin family instruments with individuals with psychiatric presentations, a deeper understanding of the inherent characteristics of different musical instruments and how they relate to music therapy is something from which any music therapist can benefit. Music therapy *competency instruments* - which include guitar, keyboard, voice, and hand percussion - are the instruments most taught in music therapy programs (Dagger, 2019) while the use of other instruments, including those in the violin family, is much less frequently explored. While there are clear benefits to using competency instruments, such as accessibility, versatility, and (with the exception of some keyboard instruments) portability, one would be remiss to claim that these instruments are the “be all, end all” when it comes to effective music therapy. It is my hope that my research can help music therapists working in both

psychiatric and other settings to gain a deeper understanding of the strengths of different violin family instruments and how one might determine whether they may be suited for any unique client, presenting problem, or therapy setting.

As a player of multiple instruments, many of which are stringed, I am intrigued by why and how different instruments seem to be the “right fit” in different contexts. At the time of writing this thesis, I am a student intern on an acute inpatient psychiatric unit, where I practice both group and one-to-one music therapy with patients. I enjoy using different stringed and non-stringed instruments with my patients, and I am constantly curious about the ways in which instrument choice affects music therapy. I have chosen mania, psychosis, and dissociation as the three psychiatric presentations to study because these are three that I encounter often on this unit, and because I am particularly curious about them. Lastly, it is my hope that this research can help me to better understand my own primary instrument, the viola. The viola is an inherently flawed instrument, inhibited by proportions that are incongruent with its register, unable to resonate optimally or play with the same strength and brilliance that its siblings, the violin and the cello, can. The viola is acoustically impaired, an “instrument of compromise” (TEDx Talks, 2011). By all means, the viola should perhaps never be indicated; and yet, it is. Despite its flaws, its unique voice has endeared players, composers, and listeners, whom through its music have discovered its great potential. My intrigue with my own unique instrument, what it has to offer, why it is indicated in music, and what it can offer the field of music therapy, has helped to cultivate my desire to explore these things about the entire violin family of instruments.

The Violin Family

The modern-day violin family of instruments comprises the violin, viola, cello, and double bass. While these four instruments vary greatly in size and pitch range, their physical

makeup is the same, as is their tonal quality and way they produce sound. The bodies of violin family instruments are made of wood, as are their necks and scrolls. Modern violin family instruments have metal strings, which can be played *pizzicato* (plucking the strings) or *arco* (running the horsehair of a bow across the strings). The bridge stands on the belly of the instrument and transmits energy from the vibration of the strings through the instrument's hollow body; this body vibrates, along with the air inside, to produce sound (Wolfe, n.d.). Though closely related, each of these instruments has unique qualities and capabilities, and each has been used differently throughout music history.

The Violin

The violin is the smallest instrument in its family, measuring fourteen inches from the bottom of its body to the top of the scroll. This instrument can reach notes higher than any other instrument in its family can; its range can be compared to that of the human soprano and contralto voice plus a much higher range (Rimsky-Korsakov, 1923). It is held between the player's left jaw-bone and collar-bone. Since the late 16th century, the violin has been a dominant melodic instrument in Western music; it is loud and has considerable carrying-power, possesses a broad pitch range that extends into the stratosphere, and is capable of varied dynamics, rich vibrato, and great emotional expression (Nelson, 2003). The instrument's power, brilliance, and ability to express emotion dynamically made it the instrument of choice for composers - from the late 16th century to the present day - who imagined a melody that required virtuosity. Many concerti have been written for the instrument, the bright and focused sound of which allows it to be heard clearly over even a full orchestra. A solo violin can be thought of as a guide, carving out the melody and paving the way for the orchestra to follow. We can hear this in Felix Mendelssohn's Violin Concerto in e minor, wherein the violin introduces a haunting

melody in e minor that sets the mood for the rest of the first movement, before inviting the rest of the orchestra in to echo the same tune. The violin is one of the most acoustically perfect instruments, meaning that its size, materials, and measurements allow it to vibrate optimally for the register in which it plays. In orchestral music, the first violins in particular carry more of the melodic line than any other section of the orchestra (Loombe et al., 2015). It is capable of brilliance and of drama, virtuosity, a range of emotions and dynamics, and some of the highest notes that can be played by any instrument in an orchestra.

The qualities and capabilities of this instrument have myriad implications for its use in music therapy. A natural melodic instrument, the violin is a fine choice in situations where a music therapist needs to carry a melody; at the same time, it has the capacity for musical variation, harmony, and expression. In environments where volume control is essential, the volume of the instrument can be adjusted easily and quickly by varying the bow stroke and lessening the weight of the bow on the strings, or by switching between *arco* and *pizzicato* (Loombe et al., 2015). The instrument's size - small in comparison to a guitar - allows for portability, meaning that a music therapist can walk around a space while playing it, interacting with people individually. The act of playing the violin *arco* requires much physical upper body movement; for a client to watch such physical movement can be quite stimulating. Loombe et al. continue that many music therapists who utilize the violin in their work report that the instrument seemed to inspire their clients to move and dance around, perhaps due in part to how they themselves move freely whilst playing. Because of the violin's small size and fragility relative to other instruments, for a therapist to bring their violin into a music therapy session can be perceived as a sign of mutual trust, which is hugely important for the therapeutic relationship (Loombe et al., 2015). The fragility of the violin is also a stark contrast to the violence of the

offenses committed by those in a forensic setting, which music therapists who have used the violin in these settings have considered to be important (Loombe et al., 2015). The violin plays a leading role in many genres and styles of music, including Western Classical music, Celtic dance music, Irish reels and folk music, Klezmer freylekhs, “Gypsy Jazz”¹ or Jazz Manouche, American Country music, and Appalachian Bluegrass. The use of the violin in music therapy with clients who have a relationship with any of these genres of music can enhance the quality of the music for those clients, thus enhancing the quality of the music therapy.

The Cello

Although it plays a great deal lower, the cello is in a way the most closely related instrument to the violin in that it, too, is perfectly acoustically proportioned. The cello’s timbre is warm, resonant, and resembles that of the human “chest voice”; its range corresponds with a tenor or bass voice, plus a higher register (Rimsky-Korsakov, 1923). In its early history, the cello’s role tended to be as an accompanying instrument; in the Baroque period, it often played the “continuo” or continued bass line, the part that helped to support the melodic line (Markevitch & Seder, 1984). In contemporary music, the cello is no longer resigned to a bass line accompaniment; while it still excels in this role, it also knows the freedom to play melody as part of an ensemble or duo, or as a solo instrument (Markevitch & Seder, 1984).

The cello’s inherent strengths can be exemplified through what is perhaps the most well-known repertoire for the instrument: Johann Sebastian Bach’s six Suites for unaccompanied cello. The Suites present a wide diversity of character; the First Suite, in G Major, is light yet full of confidence, optimism, and gaiety; the Second Suite, in d minor, is tragic and lyrical; the Third Suite, in C Major, is bright and full of heroic optimism; the Fourth Suite, in E-flat Major, is

¹ “Gypsy Jazz” is a term used to describe a specific musical genre of Romani origin. I feel that it is important to note that while Gypsy Jazz is a historically significant genre of music, the term “gypsy” is a derogatory one, and has historically been used as a slur for the Romani people.

vigorous and robust, and in it Bach uses eighth notes to give the impression of an organ playing; the Fifth Suite, in c minor, is the most finely detailed of all of the Suites, and has a particular solemn grandeur and a prevailing mood of classical tragedy; the Sixth Suite, in D Major, is virtuosic and exuberantly optimistic (Markevitch & Seder, 1984). Each Suite comprises several movements, which are also dances; some, such as the sarabande, are slower in tempo and have the cello playing sustained notes that ring; others, such as the gigue, are full of quick and notey passages that require swift articulation. These six Suites together demonstrate the diverse array of resources and abilities the cello has at its disposal. Its size and physical makeup allow it to sing loudly and brilliantly, to play virtuosic passages of quick notes, and to let long, rich ones sustain. It can be a strong, bold solo voice, as well as a soft, gentle supporter.

The cello has much that it can lend to music therapy. Its large size and curved shape create a strong, human-like presence in the therapy space (Loombe et al., 2015). When a person plays the cello, they are seated in a chair with the instrument cradled between their knees. Their feet rest on the ground, with the endpin that extends from the bottom of the instrument also connecting to the ground, supporting the instrument's weight and bringing it to the appropriate height for the player. Therefore, a person holding and playing a cello is truly grounded, anchored to the floor by their own feet and by the instrument. One who uses a cello bow does not need to work to counteract gravity to hold it as much as they would with a violin or viola; because of this, clients who do not have experience playing a bowed instrument can produce a full sound more easily and independently with a cello than with these other bowed instruments (Loombe et al., 2015). The large, resonant wooden body of the cello can also be used as a percussion instrument when knocked or thumped upon. For some clients, the cello's large size may represent "masculine" characteristics, while the curvature of the instrument may represent

“feminine” characteristics; Loombe et al. (2015) note that these characteristics can provide useful associations as part of the therapy process.

The Viola

The viola is an instrument that is played in the same manner as the violin and resembles it almost exactly, except for its larger size and subtly different proportions. This instrument’s range corresponds most closely with the contralto or tenor voice, plus a higher range (Rimsky-Korsakov, 1923). A middle child between the violin and cello in regards to both size and register, the viola is unique from them in that it is acoustically imperfectly proportioned. As previously noted, when an instrument is acoustically perfect, its size, materials, and measurements allow it to vibrate optimally for its range. Based on its range, the viola would need to have strings more than half a foot longer than it does in order to be acoustically perfect; this, however, would make it virtually unplayable. Because of this, the viola is not capable of the same resonance that is afforded to acoustically proportioned instruments such as the violin or cello. It cannot sing with the same focused brilliance and struggles particularly in its highest and lowest registers (TEDx Talks, 2011). Historically, it has been left in the shadow of its siblings, rarely given important melodic lines and instead used to provide depth of harmony and tone (Harrison and Jones, as cited in Loombe et al., 2015). It was not until the 19th and 20th centuries that composers began to write repertoire that featured the viola. William Walton, Bela Bartok, Johannes Brahms, and Rebecca Clarke were among the composers who wrote works for the instrument, recognizing the unique and expressive qualities inherent to it. As Jennifer Stumm (TEDx Talks, 2011) puts it, “It is true that there are difficulties about the instrument; but in those limitations, we find its possibilities”.

Some examples of these unique possibilities can be found in the works of Paul Hindemith - one of the great violists and composers of the 20th century - who wrote a number of pieces featuring the viola. His sonatas for solo Viola, of which he wrote three, feature rich tonal melodies contrasted with melodic and harmonic turbulence and moments of sharp dissonance played at *forte* dynamic. These mournful, angry melodies and dissonances that are so prevalent and prominent in these pieces can be thought of as congruent with the inherent dissonance between the sounds the instrument aims to make and the limitations of its physical body. Another example can be found in Gyorgy Kurtag's "Wailing Song", in which the viola reaches into its highest register to mimic the wailing of a human voice. The viola's unique *inability* to resonate brilliantly in this register lends itself to this mimicry in a way that the acoustic perfection of the violin or cello cannot. Its timbre can be described as rich, velvety, and darker than that of the violin. In an orchestra, the viola is typically a supporting instrument. It is often given flowing musical lines that move toward and away from the melodies of more dominant instruments, creating and resolving dissonance and adding color and texture to the music (Loombe et al., 2015). As a middle-range voice that can reach up to higher registers as well as down into the tenor range, it is a flexible instrument that can support and enrich both higher and lower melody and harmony lines.

When used in music therapy, the viola has much to offer. As a middle-range or *alto* voice that can both reach down into the tenor range and up into the soprano range, the viola can more easily match most peoples' voices than the other members of its family can. This, combined with the voice-like timbre of the instrument, can be used to encourage clients to vocalize. Loombe et al. (2015) note that because violas are considered crucial in providing fullness of sound between the melody and bass line in an orchestra, creating and resolving dissonances and adding colors

and textures to the music, one can make a link between the role of a violist in an orchestra and of a music therapist in a session; they do not strive to be flashy or dominant, but serve to enrich the music by providing depth and cohesion. The fact that the viola is an inherently “flawed” and acoustically imperfect instrument may also allow clients to relate to it; for a violist to be able to play this imperfect instrument - which will never be able to vibrate optimally and “pop” like the violin or cello can - and still make a sound that is strong and beautiful can be a metaphor for a client’s own capacity to carry on despite the challenges they face. Jennifer Stumm’s (TEDx Talks, 2011) words about the viola sum up my personal belief about the instrument’s unique potential in music therapy: it is true that there are difficulties about the instrument; but in those limitations, one can find its possibilities.

The Double Bass

The modern double bass is the largest instrument in the violin family. Standing at roughly six feet tall, its range corresponds most closely to that of a human bass, with the addition of an even lower range (Rimsky-Korsakov, 1923). The instrument’s large size makes it so that the player must either be standing or seated on a tall stool to play it. It is unique in that its four strings - pitched “E”, “A”, “G”, and “D” - are traditionally tuned in perfect fourths, unlike the rest of its family, all of whom have strings tuned in perfect fifths. Like the viola, its acoustic imperfection keeps it from resonating optimally and speaking as loudly and clearly as it could were it to be acoustically proportioned.

Historically, except in the case of pedal tones, the double bass rarely played an independent part in Western orchestral music; rather, its job was to move in unison with the cello or bassoon, supporting an ensemble by doubling the bass line at either the same pitch or an octave below (Rimsky-Korsakov, 1923); this is, in fact, why the instrument is called the *double*

bass. In Western orchestras both throughout history and today, double basses have provided rhythmic support by playing steady rhythms that match or subdivide the pulse of the music, either *arco* or *pizzicato*. They are also rhythmic supporters in jazz ensembles, where they frequently provide walking bass lines that outline melodies and harmonies. The addition of a double bass to a chamber ensemble such as a string quartet helps to give the ensemble a thicker, more orchestral texture. In the past half-century, interest in the double bass as a solo instrument has increased, and many composers have taken to experimenting with the instrument's sonority through compositions that feature extended techniques (Pizziolo, as cited in Loombe et al., 2015), such as Jacob Druckman's "Valentine" in which the bassist hits the strings and the body of the instrument with timpani mallets. The modern double bass also plays an important role in jazz ensembles and is often played *pizzicato* in these groups. Additionally, the instrument is a characteristic feature of many types of popular and folk music, including tango, polka, and American country (Pizziolo, as cited in Loombe et al., 2015).

Relative to other members of the violin family, there are few references in the literature to the use of the double bass in music therapy. Pizziolo (as cited in Loombe et al., 2015) states that the low frequencies unique to the instrument give it a sense of "solidity and grounding", and notes that these frequencies are natural supports for singing. Through the use of sustained pedal tones and rhythmic elements, the bass can be an effective "container" for a client in that it can frame their music (Bion, 1967) since these musical elements are integral to music's structure and stability. The physical size and makeup of the instrument - large and imposing, with an hourglass curvature characteristic of this family of instruments - can help it to be seen as both feminine and masculine, and can encourage feminine and masculine associations that can help support the therapy process, much like the cello can. The low frequencies and rhythmic stability that the

double bass provides naturally can also be likened to the rhythm and low-frequencies perceived by a fetus in its mother's womb (McTier, 2012), which can evoke a sense of comfort and safety.

Psychiatric Presentations

A psychiatric presentation can be defined as a behavioral abnormality caused by a psychiatric illness or disorder. For a presentation to be considered "acute" means that the presentation is particularly severe. Mania, psychosis, and dissociation are three psychiatric presentations frequently seen on acute psychiatric units. When acute, these presentations often cause disruptions to the lives of individuals experiencing them, which is why exploration of effective treatment methods and modalities is important. The following section will explore these three presentations, the impact they can have on those experiencing them, and treatment techniques and interventions that are indicated.

Mania

The American Psychiatric Association (2013) defines mania - which is the experience of a manic episode - as:

a distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased goal-directed activity or energy, lasting at least one week and present most of the day, nearly every day. Symptoms that typically accompany mania include inflated self-esteem or grandiosity, decreased need for sleep, talking more than usual or pressure to keep talking, racing thoughts or flights of ideas, distractibility, increase in goal-directed behavior, and excessive involvement in activities that have a high potential for painful consequences, such as unrestrained buying sprees or sexual indiscretions. (p. 124)

Social behaviors are strongly affected by mania. Inattention to social cues, inappropriate familiarity with strangers, overconfidence in abilities or opinions, and inability to allow others to speak in conversation are all symptoms of mania (Yildiz et al., 2015). Diminished insight and judgment, poor impulse control, impaired executive functioning, thought disturbances, and psychotic features such as perceptual disturbances, are also common symptoms of mania that can have negative impacts on an individual's social and day-to-day functioning (Yildiz et al., 2015).

For individuals presenting with mania, clinical goals often include destimulation, grounding, containment, and encouraging sleep. Because of the impact mania can have on a person's social behaviors, helping an individual to notice and correct maladaptive interactions with others can also be an important goal. According to Volpe (2021), music therapy can provide a musical structure that can support containment and decreased anxiety for over-stimulated, manic individuals. Volpe continues that receptive music therapy methods can help with destimulation and can help to encourage sleep. Musical elements such as timing, tempo, and harmonic progression can also be used sensitively to help individuals experiencing a manic episode to regulate their social interactions with others (Volpe, 2021).

Mania is unique from the other two psychiatric presentations explored in this paper - psychosis and dissociation - in that while psychosis and dissociation can occur as symptoms of many different psychiatric illnesses, mania can only be present in individuals with bipolar I disorder. Individuals with a diagnosis of bipolar I experience alternating periods of mania and depression; in between these two states, individuals also tend to experience periods of neutral mood. For individuals managing bipolar disorder, remaining in this period of neutral mood for as much time as possible, thus avoiding the extreme mood swings of depression and mania, is a common clinical goal. Therefore, developing the skill of recognizing when an episode of mania

or depression is about to begin, so that they can seek the appropriate support and treatment, is important for people with bipolar I disorder.

Psychosis

Psychosis can be defined as a cognitive disconnection from reality. The two distinctive psychiatric features of psychosis are hallucinations and delusions; hallucinations refer to sensory perceptions in the absence of an external source (Anastassiou-Hadjicharalambous, 2012) while delusions are firmly held false beliefs that usually involve a misinterpretation of perceptions or experiences (American Psychiatric Association, 2013). Psychosis is typically marked by the presence of a thought disorder, some of which include schizophrenia and schizoaffective disorder (Anastassiou-Hadjicharalambous, 2012). Severe forms of post-traumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), body dysmorphic disorder, anorexia nervosa, hypochondriasis, and some personality disorders can also present with psychotic features (Wright et al., 2014). Other typical symptoms of psychosis include disorganized speech, catatonic or disorganized behavior, and inappropriate or blunted affect (Anastassiou-Hadjicharalambous, 2012). According to Johnstone (2009), there is growing evidence suggesting a general relationship between child abuse and adult pathology of all types, including psychosis. Additionally, Johnstone has found, the content of delusions is often closely related to actual experiences of child abuse.

The phenomenon of psychosis can be considerably confusing and distressing for the person experiencing it. Hallucinations and delusions can be frightening. Command hallucinations, which are auditory hallucinations that instruct a person to act in a certain way, can prompt an individual to do things that are dangerous or even life-threatening. Research by Carden et al. (2020) indicated moderate-to-strong positive associations between shame and

psychosis; such feelings of shame can be a contributing factor in other psychological problems, including depression, post-traumatic stress disorder, and self-injury. Psychotic disorders are associated with extensive disability in occupational, social, and day-to-day functioning, and often diminish overall quality of life (Wright et al., 2014).

Extensive research has been conducted into understanding the phenomena and the experience of psychosis, and into developing effective practices for working with individuals experiencing it. In general, it is essential that individuals experiencing psychosis are offered long-term and respectful therapeutic relationships in which they can feel safe and in control (Geekie et al., 2011). For individuals who are extremely detached or depersonalized, language-based interventions may not be appropriate; instead, grounding techniques - which can serve to calm a person and re-associate them with their body - and expressive interventions may be more indicated (Geekie et al., 2011). In a study by Metzner et al. (2018), rhythmical attunement by psychotic individuals during music therapy sessions was associated with a decrease in psychotic symptoms. Research by Volpe et al. (2018) also suggests that structured music therapy programs can induce clinical and functional improvement in individuals with schizophrenia, and that music therapy can improve global state, mental state and social functioning in individuals experiencing psychosis.

Dissociation

The American Psychiatric Association (2013) defines dissociation as “a disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior” (p. 291). In a non-dissociated individual, that individual’s thoughts, feelings, and actions are naturally integrated into their consciousness. When an individual fails to integrate one or multiple of these into consciousness,

that is dissociation (Eiley, 1988). When dissociated, an individual can maintain allegiance to multiple conflicting truths while remaining unconscious of the contradiction (American Psychiatric Association, 2013). Dissociation, the American Psychiatric Association continues, is the central mechanism in dissociative disorders, which are frequently found in the aftermath of trauma; it is seen in individuals with dissociative identity disorder, dissociative amnesia, and depersonalization/derealization disorder. Schizophrenia, bipolar disorder, posttraumatic stress disorder, major depressive disorder, and anxiety disorders are among other diagnoses in which dissociative symptoms can occur (American Psychiatric Association, 2013).

Symptoms of dissociation include fragmentation of identity, derealization, depersonalization, and amnesia. Such experiences can be frightening and disorienting, and have the potential to disrupt every area of psychological functioning (American Psychiatric Association, 2013). For individuals with bipolar disorder, dissociative symptoms are frequently associated with a worse prognosis as well as a greater number of mood fluctuations (Steardo et al., 2021), and for individuals with posttraumatic stress disorder, dissociative symptoms have been found to relate strongly to functional impairment (Boyd et al., 2020). Dissociative symptoms also appear to play a leading role in the psychopathological processes of depression for individuals with major depressive disorder (Pettorruso et al., 2020).

Treatment goals for dissociated individuals include integrating the divided personality or different identities an individual may have, grounding the individual, encouraging sleep, and processing/integrating trauma. Research supports music therapy's indication when treating individuals who experience dissociation. Many dissociated individuals are highly traumatized, and for some, their inner world may be such that words have lost their meaning and language is not possible (Steele et al., 2016), indicating that non-verbal treatment modalities such as music

therapy may be a better fit than language-based interventions for these individuals. Because dissociation is so strongly associated with trauma history, clinicians may find that individuals who experience dissociation want to focus on what happened in the traumatic past during therapy. Steele et al. (2016) suggest that encouraging a focus on the present experience and moment-to-moment changes happening for the individual are key to integration and reassociation. Because the act of music-making supports an individual in focusing on the “here and now”, music therapy can help to encourage a focus on the present and on moment-to-moment changes. Supporting a person in noticing their own body, gestures, posture, muscle tensions, and felt sensations and experiences can also help with re-personalization (Steele et al. 2016). Grounding techniques - both music-based and not - can serve to calm a person experiencing dissociation and potentially reassociate them with their body (Geekie et al., 2011). Music therapy can be a partially verbal or entirely non-verbal treatment modality, making it an appropriate fit for dissociated individuals for whom words or language are not possible. Receptive music therapy methods such as music listening can also be used to cultivate a sense of safety for a dissociated individual (Volpe, 2021).

Discussion

Through studying the acute psychiatric presentations of mania, psychosis, and dissociation, the musical history of violin family instruments, and the ways in which these instruments are used in music therapy, I can infer ways in which this unique family of instruments can be used in the treatment of individuals with these presentations. It should be noted that this discussion of the use of these instruments is not “prescriptive”; rather, these are my hypotheses regarding how one might approach psychiatric music therapy with these

instruments given the ways in which what these instruments have to offer intersect with the clinical needs of individuals with these presentations.

When working with clients for whom destimulation is a goal, the violin might be a good choice. Since this instrument is smaller than many other instruments that might be brought into the music therapy space, such as guitar, keyboard, or any other violin family instrument, it can appear less imposing, and can be played *pizzicato*, or *arco* with small, “brushy” strokes that use less of the bow; both of these methods of playing lend to less movement in an individual’s visual field and can thus be less visually stimulating. For clients who are detached or depersonalized, interventions based in verbal language may not be received. The violin, being one of the most acoustically perfect instruments in existence and one with a natural ability to carry melody and a range of emotions and dynamics, can perhaps “speak” in a way that can reach an individual for whom verbal language is not as accessible. In music therapy, the violin may be able to act as a leader or guide, in the same way that it might in orchestral and chamber music. For individuals who are psychotic or dissociated, and for whom their inner world may be frightening or keep them from accessing their outer world, perhaps the strong, cutting sound of the violin can be an external stimulus to focus on, follow, or latch onto.

The cello possesses a timbre that is particularly voice-like, thanks in part to its range which corresponds with a tenor or bass register. This instrument’s notable likeness to the human voice can help to encourage client vocalization. There is perhaps no instrument that quite literally grounds the player as much as the cello does, as to play it requires the player to be seated firmly in a chair, with their feet on the ground, cradling the heavy instrument between their knees; the end pin that extends from the bottom of the instrument anchors the player to the ground even more. For clients that need such grounding - as clients with any of these three

psychiatric presentations may - the cello can be a good choice for these reasons. The act of holding the instrument in the playing position, with the body of the instrument firmly in front of the player's body, creates a physical barrier between the player and the world in front of them; this can help the player to feel safe, and perhaps less vulnerable. For many individuals, the cello is the violin family instrument that is the closest in size to their own body. This, combined with its curvature that can be thought of as similar to a human body's, can trigger associations with people or bodies that may be useful as part of the therapy process. The player must embrace the instrument as they play it, or at the very least allow it to be very close to them. As they do this, they must be gentle, as the instrument - albeit large - is made up of thin wood and is therefore delicate. Could this trigger associations with times the client was intimately close to someone else? Perhaps a time in which they embraced a loved one in a hug, or gently held their child on their lap, or were held gently by their mother or father? The cello can serve as an object on which the client may project, which can be valuable to the therapy process.

The viola is similar to the violin in that its relatively small size can help it to feel less imposing than other instruments that might be used in music therapy. It has the same ability to be played *pizzicato* or *arco* and with the same small, "brushy" strokes that use less of the bow. The viola has the unique ability to create sounds and inflections that bear resemblance to human speech, in a register that matches that of the human voice, thanks to a timbre that is exceptionally voice-like due to its acoustic imperfection. Perhaps a music therapist, through the speech-like sounds and inflections they create using the viola, can communicate with individuals in a way that resembles yet bypasses verbal language. Its timbre can also help to encourage client vocalization, which can be grounding. I believe the acoustic imperfections that this instrument possesses can perhaps be a metaphor for a client's own self and experience. The viola cannot

resonate as the violin does, and therefore cannot play with the same brilliance or brightness. A violist must work harder to produce the same volume, clear articulation, and focused sound; and yet, a viola can play beautifully, and in ways that only it can. Perhaps a client who struggles with their experience of psychiatric illness could see the viola as a metaphor for themselves. When I play my own viola, I am not able to play quick passages of notes with the same focused, brilliant sound as a violin can, nor can I play in the same stratospheric register. And yet, what I can produce is lovely and unique. The viola is imperfect, but nonetheless, it is beautiful, capable, and worth listening to. If a client can think of this instrument as being a metaphor for their own self, perhaps it can help to cultivate an acceptance of their psychiatric illness, their symptoms, or their experience.

The double bass, with its tendency to provide rhythmic support, can create a steady rhythm through either *arco* or *pizzicato* playing. This rhythmic support, combined with the low frequencies of the notes it plays, can evoke comfort and safety, as they can be likened to the rhythm and low-frequencies perceived by a fetus in its mother's womb (McTier, 2021). This instrument can also be grounding while played, as the double bass, like the cello, has an endpin that extends from the bottom of the instrument and anchors it and the player to the ground. Because the bass is a natural choice when it comes to setting a tempo and outlining a harmonic progression, it can be used sensitively to help individuals who are manic to regulate their social interactions with others. The double bass, compared to all of the other violin family instruments and to many other instruments, is massive and imposing. Like with the cello, the bass requires the player to position the instrument between themselves and the world in front of them. This literal barrier created by this large instrument can help to support a sense of safety and to minimize feelings of vulnerability in the person who is playing.

There are qualities and possibilities that the entire violin family of instruments are able to offer when used in music therapy, due to their shared physical makeup, tonal quality, and means by which they produce sound. Rimsky-Korsakov, in his 1923 *Principles of Orchestration*, wrote that “Nobility, warmth, and equality of tone from one end of the scale to the other are qualities common to all [violin family] stringed instruments, and render them essentially superior to instruments of other groups” (p. 9). Indeed, these instruments’ rare ability to connect sounds in many different ways using the bow, combined with their warmth and nobility of tone, renders them an optimal medium for melodic expression. As mentioned previously, these instruments’ likeness to the human voice is also notable. Not only do humans’ vocal cords work in a similar manner to strings - vibrating at different frequencies congruent with different pitches they produce - but one can also compare the range of each stringed instrument with that of a corresponding vocal range. In these bowed instruments, Loombe et al. (2015) note, the separateness of the instrument and the bow can “provide a connecting bridge between [the music therapist’s] clients, the music and themselves”. By allowing the client to run the bow across the strings while the music therapist holds the instrument and depresses the strings, client and therapist can share in playing. All of these instruments are also capable of techniques such as double stopping, pizzicato, glissando, tremolo, and harmonics, which can help to match individual and idiosyncratic contributions clients may make to the music through their own singing and playing (Loombe et al., 2015).

While these instruments can surely be impactful in music therapy, I would be remiss not to note some of the contraindications of using violin family instruments in psychiatric music therapy contexts. These instruments are fragile. While an experienced player will know the physical limits of their instrument, such as how gently it must be held and how much force it can

withstand, a person who is not familiar with these instruments may not. A drop from no more than a couple of feet off the floor - or any moderate impact, really - can render the instrument unplayable and in need of repair. Violin family instruments also tend to be rather expensive, especially if they are a music therapist's primary instrument. On top of this fragility and expensiveness, players of these instruments tend to love and cherish them. We are close to them, proud of them, protective of them, and even personify them. I once dropped my own viola - an instrument that I love dearly, that I think of as being an extension of my voice and of myself - and I still cringe as I remember the heartbreak and sadness I felt as I picked it up off the ground to find it damaged and unplayable. I was very fortunate that the damage it sustained (a cracked heel) was entirely repairable, and my viola was once again able to sing as loudly and beautifully as ever, but not all who damage their instruments are so lucky. These instruments are also sensitive to temperature and humidity, and drastic changes in either can result in issues with tuning an instrument or tightening its bow. Sound quality can diminish if an instrument is stored in air that is too dry or too humid, and in some cases, seams in the instruments - which hold together the different pieces of wood in an instrument - can crack. And, because these instruments are so delicate and particular, they are typically stored in sturdy cases, held securely in place by zippers, buttons, velcro, and padding. To unpack a violin family instrument - especially a bass or cello, both of which have larger cases and require the player to release the endpin and anchor it securely into the ground - can take some time, which can be disadvantageous during music therapy if things in the therapy space are moving quickly.

Compared to guitars, keyboards, drums, hand percussion, ukuleles, and many other instruments, those of the violin family are seen less frequently in music therapy. In the United States, those who enjoy music for leisure are more likely to be familiar with guitars, keyboards,

and drums; these instruments are more common in popular Western music than violins, violas, celli, and double basses. Because of this, to see and hear a violin family instrument played in person can be a somewhat novel and even special experience for many. The use of these instruments in music therapy may help to motivate clients to engage in treatment, perhaps more than instruments that they are more familiar with, and would thus be less intriguing to engage with. Lastly, if a person plays the violin, viola, cello, or double bass - and plays it well - there is a high likelihood that they have studied that instrument formally. Unlike such music therapy competency instruments as guitar, piano, hand drums, or voice, violin family instruments are not taught in music therapy programs and tend to require professional instruction and years of practice to achieve proficiency. Players of these instruments who are both capable of using these instruments in music therapy contexts and willing to do so tend to have close relationships with them. As previously noted, research by Dagger (2019) suggests that a music therapist's training and relationship to the instrument they use in music therapy have an impact on therapeutic attunement within the therapeutic relationship. It is safe to assume that a music therapist who brings a violin family instrument to the music therapy space would feel quite connected to it. The deeper a therapist's relationship to their instrument is, the deeper they are able to go in the music they play; and the deeper one can go in music, the deeper they can go in music therapy. And because of how cherished and fragile it is, a therapist who chooses to bring their violin family instrument to the music therapy space is taking a risk and being quite vulnerable with their client. To be vulnerable in this way can help to cultivate client trust in the therapist, which can enhance therapeutic attunement, an important factor in therapy.

It is evident that the unique and beautiful violin family of instruments have great potential for use in music therapy, both with individuals with psychiatric presentations and those without.

It is my hope that this research might inspire music therapists to explore how these instruments might be indicated in different music therapy settings and with different clients. The world is full of different instruments, each with its own unique sound and characteristics. I hope that my research into this small handful of instruments might inspire other music therapists to pursue research into other instruments that, like the violin family, are not as well-researched when it comes to their use in music therapy.

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