The Impact of Music Therapy on a Young Man on the Autism Spectrum: A Case Study

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Abstract

Young adults with Autism Spectrum Disorder (ASD) are faced with challenges as they progress through stages of human development. The client in this case study is a young man who desired the same things that typically developing young people do, namely to live in his own apartment. However, he had not yet acquired the daily living skills needed to accomplish this due to the challenges presented by his diagnoses of ASD. Music therapy was an important component of his habilitation. In these sessions, the music therapist accompanied the client on a journey of self-exploration and confidence building, which readied the client to learn and implement the needed independent living skills.

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I have worked with individuals with developmental disabilities and adults with ASD in various different capacities. I have often found that these individuals expected things to be done for them, even if they were capable of completing the task on their own. Research supports this concept of *taught helplessness* (Grunewald, 2003). For many, breaking this cycle of taught helplessness can empower them to take a greater level of control of their own lives. As a music therapist, I felt inspired to use music to not only teach independent skills, but also empower these individuals to start doing as much as possible for themselves.

There are many approaches to music therapy. As a music therapy intern just starting out, I had learned about these approaches but had little experience putting them into action. Initially, my work as a music therapist was informed by the behavioral perspective, and it is how I started my work with the client I present in this case study. However, as the sessions progressed it is clear that my approach shifted to embrace psychodynamic influences, namely humanism, in my relationship with my client.

The idea that the client would be intrinsically motivated to behave a certain way and learn information is part of behavioral music therapy (Hanser, 2015). I wanted to use music as a way to teach independent living skills. I also wanted to use music to motivate him to learn otherwise tedious activities associated with daily living.

As the treatment sessions evolved, a psychodynamic approach to music therapy truly emerged. The emphasis on the client and therapist relationship, and the fact that his past experiences was really affecting how he acted in the present became the focus. It started out more about learning new information, but the most important piece became that he had the self-confidence to learn new material. When his lack of belief in his own ability to learn new skills

was addressed, the sessions truly began to shift. That is when the real therapeutic progress was made (Isenberg, 2015).

The work also reflected elements of humanism as well. Treating the client as a whole person and facilitating person-centered treatment was humanistic in nature (Abrams, 2015). In addition, this was impacted by the positive therapeutic relationship that was developed. My ultimate goal evolved into not simply wanting him to have skills to live independently, but to empower him to believe in himself. The related humanistic music therapy goal is the facilitation of self-actualization, for the client to fully know himself and his abilities. Even though learning specific skills was important, the ultimate goal of reversing *taught helplessness* became crucial to his treatment. The present study used an evolving music therapy approach to reach the desired goals, which were to build self-confidence and increase independence.

Review of Literature

ASD: Diagnosis and Needs

According to the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders(DSM-5), the criteria for a diagnosis of Autism Spectrum Disorder (ASD) are as follows: deficits in social communication and social interaction, restricted and repetitive patterns of behavior, symptoms must be present from childhood, everyday function must be impaired and the presentation is not better explained with Intellectual Disability alone (American Psychiatric Association, 2013). According to Dowell (2007), even though ASD is a "spectrum", individuals commonly have three main areas of difficulty: social interaction; social communication and social imagination (p. 11).

Social interaction is a challenge for individuals with ASD because they tend to appear aloof and indifferent to others (Dowell, 2007). This may cause typically-developing peers to be

reluctant to initiate interactions, and makes it more difficult for individuals with ASD to do the initiating. Bauminger (2002) found that social-emotional understanding was a major problem for especially high-functioning individuals with ASD. The limited understanding of social interaction may present as disinterest, but most likely this is not the case. The author concluded that individuals with ASD want to interact with peers, however they are not sure how to interact socially due to limited social-emotional understanding.

Social communication is another challenge for individuals with ASD. Individuals with ASD not only have difficulty with verbal communication, but also in reading non-verbal communication. Lin et al. (2018) noted that children with ASD are not able to identify emotions as quickly as their neuro-typically developing peers. When they are able to recognize emotion, they have difficulty understanding more complex emotions such as guilt and embarrassment (Bauminger, 2002).

Social imagination is very difficult for individuals with ASD. They are able to memorize facts but are not always able to apply them to different situations. Their inability to imagine what will come next during transition gives them anxiety and often causes inappropriate social behaviors. They also aren't able to store memories as related to personal experience (Dunlop et al., 2009). The inability to understand the nuances of social-emotional development often lead to comorbid diagnosis.

Adolescents with ASD are likely to have at least one comorbid diagnosis, and often have more than one (DeFilippis, 2018). Posserud et al. (2016) found that only 2% of children were found to have "ASD only" (p. 280). Common traits of autism such as inability to adapt to change, difficulty coping with stress, difficulty understanding their own behavior and inadequate social skills often manifest into mood disorders (Lainhart, 1999).

According to Ghaziuddin et al. (2002), depression is most likely the most prevalent comorbid diagnosis (p. 299). Anxiety also occurs frequently among individuals with ASD (Nadeau et al., 2011). Antshel et al. (2011) found that a diagnosis of Anxiety Disorder or Attention Deficit Disorder (ADD) in addition to ASD significantly affected how well the individuals responded to treatment aimed at the development social skills. There may be a genetic link between ASD and Bipolar Disorder, another prevalent comorbid disorder (Munesue et al., 2008). Adolescence is a time when youth struggle with self-identity and interpersonal relationships, and mental health concerns can further complicate this already bewildering time in human development (DeFilippis, 2018).

These social issues are typically ameliorated in childhood and adolescence through school services and family engagement. Educational services provide structured social inclusion for all children. This prevents isolation or social deprivation, even with the presence of deficits in social and communication skills in children with ASD (Posserud et al., 2016). When family is closely involved in everyday care, symptoms of mental health concerns have less impact on their quality of life. However, as parents become less involved and young adults with ASD age out of the school system, their lack of social skills and self-help skills could potentially lead to isolation and prevent them from functioning in society as an adult (Posserud et al., 2016). Mental health concerns in adolescence with ASD will likely have a negative impact on their young adulthood.

There are several reasons why treatment needs are not being met for adults with ASD in regards to mental health (Cam-Crosbie et al., 2018). The first challenge is lack of adequate assessment with provision for the unique characteristics of ASD (Cassidy et al, 2018). Some symptoms of depression may overlap with symptoms of ASD, which may lead to overlooking valid concerns. Depression may manifest differently in a person with ASD compared to

someone without ASD. For example, individuals may not show emotion in their face like their neuro-typical peers, so their depression may not present at the appropriate severity to mental health professionals. Assessment tools for the general population also do not consider symptoms of depression specific to ASD, such as loss of absorption in "special interest".

Often mental health clinicians are not trained to understand ASD. The participants in the Cam-Crosbie et al. (2018) study self-reported that many clinicians who provided them with treatment had minimal understanding of their ASD diagnosis. The participants felt their treatment was not being tailored to their specific needs. The majority of participants found it difficult to seek treatment, and when they did receive treatment they were often misunderstood and misdiagnosed.

The Impact on Society

According to Dowell (2007), most individuals with ASD are not receiving the supports they need to enjoy independent living. It was found that 44% of adults with an ASD diagnosis aged 25 and older were still living at home with their parents. Only 4% of adults with ASD living away from home were living completely independently, and 30% were living in supported housing. Only 9% of individuals with ASD were receiving social skills training and only 6% had full-time jobs (p. 14). These are individuals that with the right support, could contribute to society and improve with their quality of life.

There is significant empirical research that supports the importance of early intervention for children with ASD. Early detection of the deficits that are commonly found in children with autism, such as communication difficulties, lead to a better overall outcome (Kamio, 2012). Early Intensive Behavioral Interventions (EIBI) has been proven to be crucial to the beginning stages of development. Services delivered for children at 2-3 years old is proven to be more

cost-effective, because these children gain skills that will increase their independence as adults, thus requiring fewer services in the future (Matson & Konst, 2013). By working on transitions, coping with emotions, and acquiring skills to aid with learning early on, they will have the tools they need to be more successful as adults. Early intervention has been proven to increase cognitive function, measured by the increase of IQ scores (Itzchak et al., 2008). However, IQ scores do not necessarily determine that preparation for adulthood is adequate. Research tends to focus on measuring academic achievement, but this does not necessarily correlate with emotional and social readiness to meet the unique challenges of adulthood (Burgess & Gutstein, 2007).

The National Autistic Society found that only 53% of adolescents with ASD had a transition plan in place for adulthood, thus approximately half of adults did not get the training they needed to gain independent living skills (Dowell, 2007). As previously discussed, individuals with ASD have the inability to use past experiences and use them to predict what will happen in the future. This makes it difficult for individuals with ASD to see beyond their daily activities (Dowell, 2007). This means even if a young adult has the capacity to live independently, they may not be able to without an individualized transition plan in place.

Early planning for transitioning into adulthood for individuals with ASD sets them up to reach their full potential in adulthood. This is the primary tool for success. There are direct costs of disability, such as healthcare and treatment, but there are also indirect costs such as loss of wages when individuals with ASD do not get the proper training they need for adulthood (World Report on Disability, 2011). Empowering these individuals with the ability to set goals, and the means to meet these goals, will contribute to building their self-esteem and motivating them to be contributing members in society. This will add meaning to individual's lives while helping society at the same time (Racino, 1999; Tymchuk et al., 2001).

Music Therapy with ASD

Music therapy is an established healthcare profession that uses music to improve physical, emotional, cognitive, and social needs of individuals of all ages (Davis, Gfeller, & Thaut, 2008). Music is used by a trained clinician to develop non-musical skills, change behavior, and improve quality of life. According to Wheeler (2015), "Music therapists use the unique qualities of music and relationship with a therapist to access emotions and memories, structure, behavior, and provide social experiences in order to address clinical goals" (p. 5).

Research supports the use of music to meet the needs of individuals with ASD. According to Hillier et al. (2011), "Engaging with music can positively impact a range of psychological outcomes for those with ASD" (p. 209). Music therapy with individuals foster receptive and expressive language skills, social skills, behavior management and self-awareness (Carpente & LaGasse, 2015). Musical improvisation clinically facilitated by a music therapist, has been found to be effective treatment for children with ASD (Geretsegger et al., 2015). Music can create a safe environment for an individual with ASD to explore their feelings on a deeper level. With the support of a music therapist, an individual with ASD can express themselves in a non-judgmental environment (Baker et al., 2009b). In addition to improvisation, other methods of music therapy can be useful with working with persons with ASD, including songwriting.

Songwriting in music therapy. Songwriting is an effective intervention to use in music therapy. Bruscia (2014) defines the process of clinical songwriting in music therapy as "the client composes an original song or any part thereof (e.g., lyrics, melody, accompaniment) with varying levels of technical assistance from the therapist. The process usually includes some form of notation or recording of the final product" (p. 135). According to Baker et al. (2009a), the prevalence of the use of songwriting among music therapists is significant. Music therapists

were surveyed all over the world and the most noted goals were experiencing mastery, enhancing self-esteem, decision making, developing sense of self, externalizing emotions, telling the client's story, and gaining insight into thoughts and feelings.

During songwriting within the music therapy context, the therapist's role is to facilitate an opportunity for the client to create a song that is truly theirs; reflective of their thoughts and validates their feelings (Baker & Wigram, 2005). Songwriting is about both the process *and* the end product; it documents the journey of the client and also provides a piece of work the client can revisit and take pride in. The song is a tangible creation they can sing and play whenever needed, and the process is an opportunity to process their emotions and give them new perspective.

There is evidence that songwriting can alleviate psychological symptomatology. For example, songwriting as part of music therapy treatment for individuals with a traumatic brain injury (TBI) is an effective way for them to process many emotions, especially self-concept (Baker et al., 2018). This can be attributed to the fact that songwriting is both focused and creative, and allows for self-reflection. The creative process of working through song lyrics allows for revisiting perspectives and reframing of feelings. These results could be applied to individuals with ASD by reframing how they see themselves and situations. With the guidance of a skilled music therapist, this could be focused on improving self-esteem and alleviating depression and anxiety. As previously mentioned, individuals with ASD often experience lowered self-esteem when they do not feel they can access treatment and they do not feel their voices are being heard. Songwriting is a way to validate what they are feeling, to empower them to make decisions, and to organizing their thoughts into a structure which will in turn give them new perspective (Bruscia, 2014).

Songwriting can also be an effective way to learn information, while simultaneously influencing emotion. It potentially can be a tool to help individuals with ASD with the transition process, making information more accessible to them and at the same time addressing their feelings. Due to the structure of music and lyrics, songs are an effective means of teaching concepts and skills. Knowledge and ideas communicated and taught through song are more easily stored in memory (Brownwell, 2002; Crowther, 2012). Music therapy experiences can be designed to use music to present non-musical information, such as academic knowledge and social skills training. In addition to transition planning, these are also important skills to build. Brownell (2002) examined four separate case studies, in which social stories were set to music to modify the behavior of children with ASD. The research showed that unwanted behaviors occurred the least during the music condition. Varvara (2004) examined three case studies that administered "prescriptive therapeutic songs" to assist children with ASD, to acquire social skills. It was found that in each case, the parents were pleased with the results and felt their child benefitted from the music therapy treatment. Similarly, the present study explores the effectiveness of using song lyrics to facilitate the training of independent living skills.

In order for individuals with ASD to successfully live independently, they need to develop specific skills. Independent living skills that neurotypical individuals learn with little effort may be more challenging for someone on the autism spectrum. Music therapy is a way to reinforce appropriate social behavior, while structuring information and putting abstract ideas into concrete steps (McLaughlin & Adler, 2015). The process and product of songwriting for this purpose can increase self-esteem, and engages clients creatively. Co-writing compositions as part of a therapeutic process the potential to inspire clients to learn, and empower them by making it so they can express themselves creatively (Baker & Wigram, 2005). The present study

not only explores learning information through songwriting, but it also it used to support client through a journey self-actualization. The songwriting activity is first used to build confidence needed to gain new skills.

The Purpose of the Current Study

The purpose of the present case study is to explore the use of music to teach non-musical information with an adult with ASD to increase his self-esteem and to learn skills that would help him to live more independently. I present an in-depth examination of music therapy sessions that I facilitated spanning an eight month period with a 24-year-old man with mild intellectual disability and ASD. He has a comorbid diagnosis of ADHD and bipolar disorder, specifically Bipolar I. The sessions were conducted when I was a music therapy intern completing my graduate coursework at SUNY New Paltz. For the purpose of this study, the client will be referred to as JT.

The Musical Experience of Client JT

Phase 1: Assessment

When engaging in a music therapy treatment process, it is not only imperative that the music therapist gathers initial clinical information through assessment, but also that the assessment is music-based. A music-based assessment may reduce anxiety while increasing self-disclosure, and also highlight symbolic and nonverbal communication. It also allows the client to be observed "in process" (Lipe, 2015). It was particularly important for the assessment of JT to be based on a music assessment, because of its qualitative nature and his challenges in verbal communication. The assessment process for JT took place over three sessions.

The initial session with JT was aimed at assessment of his independent living skills and offered the me the opportunity to get to know him. During the first few sessions, I was assisted

by a staff clinician who is trained in Applied Behavior Analysis (ABA) and experience working with individuals with ASD. The sessions took place at a day program in upstate New York that specializes in meeting the needs of individuals with ASD.

During the first session, I immediately observed that JT had a short attention span, and that it was difficult to engage him in sustained activity. He came into the room perseverating about an event that had occurred prior to the session. Because I was a novice to music therapy and working with JT, the ABA clinician assisted a great deal with redirection. When I began the greeting song, he refused to sing. JT explained he did not want to sing because he did not know how. I assured him that he did not have to sing if he did not feel comfortable, but encouraged JT to just say "hello" when cued in the song. He complied and said "hello" when appropriate, but seemed very anxious and uncomfortable with the me.

I realized that it would be imperative to build a strong rapport with the client, especially since singing seemed to be "out of his comfort zone." When I introduced instrument playing to assess his motor function, JT did not demonstrate any deficits in this area. He demonstrated strong cognitive skills through his behavior and expressive language skills, but I felt his short attention span may make it difficult for him to learn new musical material. I experienced particular difficulty engaging him in the process because I did not know his music preferences at the time. When I played songs that JT did not know, he stated he would not sing and his attention would wander.

In order to more fully engage clients in the music therapy process, it is important to find the music that is best suited for the client (Davis, Gefeller, & Thaut, 2008). Age and cultural background are both factors to consider, and each client has unique musical tastes and life experiences that shape responses to music. Music may also challenge the client, and care must be

taken by the music therapist to determine the appropriate music based on the therapeutic process. Thus, going forward, I prepared different music selections from various different time periods and genres. This was not only to find what music JT was comfortable with, but also the music that may gradually challenge him for later in the therapeutic process.

At the beginning of the second assessment session, JT seemed to be in a better place emotionally although during the greeting song, he was still not responding to the musical cue to sing "hello". When verbally asked to sing "hello," JT said, "I can't sing." I told JT he could once again speak "hello" if that is what he preferred, and with some positive encouragement he sang "hello" for the first time. When I presented preferred music, again JT responded, "I can't sing because I don't know how." I responded each time by reassuring him that he did not have to sing and that he could just listen if he wanted. This was effective because removing pressure would cause him to sing at least a portion of the song. When there was a lull in the session, JT would lose focus and speak rapidly about unrelated topics.

By the third session, the initial assessment period was complete and JT started to seem more comfortable. He seemed to be getting used to me and was more willing to participate than before. However, he still presented as anxious and continued to insist he could not sing when prompted to participate. He started to sing during the chorus of the songs presented. When JT did sing along with the music, he would sing very fast. Verbal prompts were required for JT to slow down and listen to the guitar and lyrics of the song. I introduced a songwriting activity. This started as free form, allowing JT to have total control over the topic and how it was created. I quickly realized that this was not enough structure for him. He continually went off topic and it was difficult for him to organize his thoughts.

By the fourth session, which was the initial baseline assessment, JT was participating much more in the singing activity. He began to sing more than just the chorus. JT still rushed ahead, but would sync with the rhythm of the guitar when verbally reminded. Entrainment is defined as the adjustment of the cycle or pace of one activity, to synchronize with another. Entrainment can be used to organize behavior (Ancona & Chong, 1992). The rhythm of the my guitar slowed JT's singing down, which then appeared to lead to slower breathing and a more relaxed body. Once JT slowed down, his brain had more time to process the information and was able to sing/speak the lyrics more clearly.

JT was beginning to be aware of his progress. He began to clap after each song in which he successfully participated and exclaimed, "Yay! We did it!" This exemplified that JT was becoming more comfortable and confident with his singing ability. By the second baseline assessment, which was the second session after the three initial assessment sessions were completed, he was able to create two original lines of a song during the songwriting activity. I observed that he seemed to frequently talk about movies, so I incorporated that interest into the songwriting. This led to more meaningful songwriting experiences for JT.

Phase 2: Songwriting

After the assessment phase, a treatment plan was developed. As we entered into the treatment phase, JT was increasingly adapting to the sessions and I was learning how to better meet his needs. In order to provide more structure, I began to use lyric sheets for JT during our singing. His participation increased with the support of the lyric sheet as he was more able to stay on task with this visual cue. When JT did not have lyric sheets, he would resume singing rapidly over the music; with the lyric sheets, he slowed down and sang with me. JT would still

express that he felt he could not sing the songs, but he appeared to be gaining self-confidence. I observed JT singing not only louder, but also for longer periods of time.

During the second treatment session, JT still jumped from one topic to the next during the songwriting experience, but it all related to music. Previously, when he strayed from the focus of the session, his verbalizations were unrelated to the activity. As treatment progressed, JT instead stayed more focused on music. I felt that even though his speech was still somewhat scattered, the fact that it still related to music in general indicated to me that his attention was improving. This showed me that JT's comprehension of the concept involved with songwriting seemed to be improving. In the first songwriting session, JT was able to create a single line of lyrics. This success resulted in feelings of triumph and success in JT, as evidenced by a change in body language and less negative self-talk. By the second treatment session he was able to create four original lines of lyrics. JT responded well to visual support, such as writing the song lyrics on a whiteboard.

JT's participation in the songwriting experiences was influenced by his emotional state. The third treatment session was not very productive because JT was upset before the session began. He had fought with his girlfriend, and he was perseverating on the argument. I utilized the *iso-principle* by matching JT's mood in the music, choosing songs that were darker sounding rather than cheerful, upbeat songs. The iso-principle is identified as a musical way to manage mood in a clinical music therapy setting (Heiderscheit & Madson, 2015). It is a technique during which the therapist matches the mood of the client through the music, and then gradually alters the music toward the desired emotional state (Davis, Gfeller & Thaut, 2008).

I used my clinical judgment to use this technique with JT. I experimented with this using different tempos and strumming patterns. JT initially refused to sing. I told JT he could just

listen, but then incorporated songs that he knew well. JT started to sing reflexively but stopped when he became aware that he was singing. JT said he was too upset and did not want to sing, but when I played songs from previous sessions, it was almost as if JT was compelled to sing. In response to one of the darker songs I chose, JT said, "This song is too sad." This was interpreted positively, because it demonstrated an emotional awareness. Music seemed to be an excellent way to both redirected JT and to assist in emotional coping and modulation. It was important for me to first match the current emotional space in order to facilitate the transition to a different emotional state (Davis, Gfeller & Thaut, 2008).

When JT was not able to participate in songwriting due to his emotional state, I focused the session on elevating JT's mood through singing and movement/drumming. Meeting the client's needs in the moment is supported by the humanistic approach to therapy, in that the music therapist must always treat client as a whole person, and be responsive to their needs from one moment to the next (Abrams, 2015).

Phase 3: Building Self-confidence

By the fourth treatment session, JT became noticeably more comfortable with songwriting. Once he understood the process, I felt he would benefit from using songwriting for empowerment and to build self-esteem. Although JT still maintained that he could neither sing nor perform new activities that I introduced, with encouragement, JT typically was able to engage with success. I surmised that songwriting would provide an opportunity to focus on what he could do, rather than what he could not do. Baker and Wigram (2005) support that songwriting can externalize issues a client may be facing, and in the process make the problems seem more manageable. Also, singing about these feelings can seem less threatening than

talking about them. I hoped that this would decrease the number of times JT spoke in a self-deprecating manner during the sessions.

JT was becoming more comfortable and building a rapport with me. During the fourth session he began to dance in his seat and asked if I wanted to dance "as friends." This demonstrated that the client understood appropriate boundaries, and he was praised for being very polite and socially appropriate. JT also became more confident singing songs with minimal assistance from me. Thus it seemed to be the right time to shift into deeper work in the therapeutic process.

Phase 4: Identifying Strengths

The first time I asked JT what he was good at, he said he was good at watching movies. In an effort to help him more accurately reflect on meaningful strengths rather than preferences, I rephrased the question and used examples. I also wrote the question on a whiteboard because visuals seemed to help him better understand directions. According to Lal and Bali (2007), individuals with ASD process information better with visuals. The visual assisted JT with being able to focus and process the information, and his response was he was good at swimming and singing with me. Focusing on what he felt he did well seemed to deter him from his typical negative self-talk. His typical negative self-talk seemed to show low self-esteem and the inability to make decisions for himself, which was my inspiration to build self-confidence before working on independent living skills. In the music experiences, he continued to grow and seemed more confident with his singing skills.

By the fifth treatment session, JT was singing the songs with a greater degree of independence, and I was able to drop out of the song to assess his ability to sustain on this own. JT continued to sing even when I was only playing the guitar. In verbal processing, JT was able

to identify his strengths and remain on task but would still occasionally lose focus and revert to his preferred topic, watching movies.

Phase 5: Safe Container

The level of trust between JT and me seemed to be deepening. During the very first assessment session he did not want to sing at all, but by the seventh treatment session he not only was singing the greeting song effortlessly, but JT was also improvising his own words and rhythms. He would musically express that he was happy to be in music or different sentiments referencing how his day was going. I had successfully created a safe environment for JT to express himself. He was hesitant to learn new songs, but he seemed to engage faster than before, with only minimal resistance at the beginning of the song. This was an improvement from his initial reluctance. I introduced a new activity called "pass the instrument" which JT enjoyed and was eager to participate in repeatedly. This also exemplifies that he was comfortable with me, and less anxious to try new things.

JT had reached somewhat of a plateau. This was most likely because he needed to become comfortable with his personal growth and new development. He was consistently able to create four lines of a song and sing them, but did not usually create more than four lines of lyrics. This seemed to be the limit of his attention span, as he would be eager to stop creating and move on to singing it. However, during the seventh treatment session he created five lines of lyrics. This may positively correlate with his sense of pride regarding a his handling of a difficult peer relationship. JT and the peer had a long standing history of conflict, but on this day JT apologized to this peer for their interpersonal difficulties. JT was excited to share this with me, which again demonstrated that he felt comfortable with our therapeutic relationship. I

validated JT's courage, and used the songwriting activity to further his identification of his strengths. This facilitated a conversation that remained focused on his positive attributes.

During the ninth treatment session, the safe environment to express feelings became critical. JT's girlfriend had just broken up with him, and he was very upset. The ABA clinician had not been sitting in on the sessions for several weeks, but the clinician joined the beginning of the session that day. I started with a verbal check in with JT, and the clinician encouraged me to go right into the music. I realized afterwards that was very good clinical advice, especially with JT. JT's mind was racing at that point, and he most likely was not able to mentally process verbal directions or questions. Since the rapport and safe environment had already been created, it was more effective to go directly into the music. I focused on familiar songs, which were the most retrievable due to their familiarity. I understood that day that music sometimes the music supplements the therapy, and sometimes the music acts *as* the therapy itself. In this way, this session embodied the philosophy of music-centered music therapy (Aigen, 2005), allowing the music to directly meet the needs of JT and serve as the complete therapeutic process. Experiencing this firsthand was an important learning experience for me.

Phase 6: Accomplishments and Goals

JT continued to improvise during the greeting and closing songs. I started to harmonize with him to see if he could maintain the melody independently, and JT knew the songs so well that he was able to keep the melody strong. He continued to become more confident with his singing and would give me a high five exclaiming, "We did it!" I said I was just "singing back up" (harmonizing) and he was singing the main melody, he became even more proud and asserted confidence in himself about singing on his own. JT would even at times request to sing it on his own. He said, "I don't need your help, you just play the guitar." JT had made

significant progress, considering he did not want to sing at all at the beginning of our work together.

JT's newfound confidence carried over to his songwriting. At times JT spontaneously sang the lines that he and I had created together, whereas before he would wait for the me to start singing and playing the guitar. JT sometimes created melodies on the spot; other times he said: "Let's make fun of a song!" referring to making a song parody. For example, he created a song parody to "Deck the Halls":

JT is good at fixing computers, fa la la la la la la la la

JT is good at singing songs, fa la la la la la la la la

Tying sneakers, swimming laps, fa la la la la la la la la

JT is good at laughing too much Ha ha ha ha ha ha ha ha ha

I fixed words occasionally to fit with the music, but for the most part the client wrote lyrics independently. He thought of the "ha ha" part in place of "fa la la" which I assured him was wonderfully creative.

The successful songwriting not only was assisting him with identifying his skills, but simultaneously gave him a new creative skill. This was very important to his self-esteem and his self-concept. He was able to verbalize his strengths, see them written down, and be a part of the creative process of putting it to music. It assisted him with seeing not only what he can do, but how he could participate in his community and help others with his skills. For example, this gave him a chance to really take pride in the fact that he was able to help someone fix their computer, when the person struggled with it. He also said he was good at singing songs, and we discussed how he could sing with others. By singing with other people, he could use his ability to sing to bring music to others and share the joy it brings. When he said he was good at

"laughing too much," I kept the wording because I really wanted it to be his song and reflect exactly what he said. According to Baker and Wigram (2005), it is imperative that the client feels ownership of the songs written in music therapy sessions. However, we did discuss how laughing and having a good sense of humor is a positive quality to have. The music opened discussions about how he helped people fix computers, made people laugh, shared his love of music and how being an active member of society made him feel.

JT was doing well with songwriting and seemed to have a sufficient grasp on the concept. I felt that he was ready to progress in the songwriting process. With the new year approaching and the typical talk of New Year's resolutions, I introduced the idea of singing about goals JT wanted to achieve in the new year. At first JT stated he wanted to watch more movies, but after a verbal reminder that was a leisure activity not an accomplishment, he came up with an appropriate list. This list included: 1) getting a new girlfriend, 2) getting his own apartment, and 3) becoming more independent.

In team meetings regarding JT's living arrangements, there were efforts being made to find JT a supported apartment. This meant that he would receive less staffing and gain more independent living skills. I immediately focused on the client's wishes of a new apartment and being independent. I thought that songwriting would be an effective way to teach independent living skills. Research supports using social stories to teach skills that may be difficult for individuals with ASD learn (Bozkurt & Vuran, 2014). Social stories put to music also has been found effective (Brownwell, 2002).

Individuals with ASD tend to have difficulties thinking abstractly, and tend to think based on their memory rather than problem solve (Solomon, 2011). Songwriting can give the individual with ASD an opportunity to think more symbolically. The concept of "living more

independently" is abstract, and was likely difficult for JT to fully understand. In music therapy, it was possible to use the structure of a song to break down the required life skills into manageable steps, and thus presenting him the information in a more accessible manner (Wheeler, 2015).

It is important that a therapist creates a working alliance with the client, which is gained through understanding and respect (Meier & Davis, 2005, p. 3). I felt that this alliance was created between me and JT, and the emotional connection of the therapeutic relationship was enhanced through the music (Hanser, 1999). The ability to be creative is innate, but individuals may need a safe environment to feel comfortable to explore it (Kenny, 2006). I felt that music therapy sessions would be a non-threatening environment for JT to begin to embark on his life-changing journey towards independence.

Phase 7: Determining Steps Toward Independence

After spending a few sessions creating lists of independent living skills, I asked JT to pick an activity for each session. They then worked to conceptualize manageable steps that JT could take to achieve specific goals. The first goal discussed was grocery shopping. It was difficult for him to stay on topic and had to I frequently had to redirect him.

JT needed redirection and prompting to come up with the first step, "make a list." JT did say one needs to "buy food and beverages," but when the I asked "How do you know what to get?" he told me, "The house manager tells you." This comment illustrated his dependency on his staff and exemplifies *taught helplessness*. JT was used to the staff in his house doing the grocery shopping, even though JT was capable of executing all the steps that grocery shopping entailed. I asked, "What if the house manager wasn't there? What if you were in your own apartment and you had to do the grocery shopping?" Once he was his mindset was away from

the group home, JT was given the chance to think more independently. After considering this, JT told the me he needed to make a list. At the time, I was not able to guide him to identify that going to the store would be the next step. Throughout the process, JT often got off topic talking about movie quotes. Though he missed many of the preliminary steps, JT did identify the need to "look for what you need in the store." JT had difficulty understanding that he needed to make sure he had enough money. He did however say that he "had to pay for it." I decided that visuals would help a great deal and may support him in coming up with the steps. I wrote down each step on the whiteboard as JT came up with them, but pictures of each step may have helped as well.

At the end of the session, JT created a melody in the moment for each identified step over chords I played on the guitar. The first time singing the lyrics, I sang with JT. The second time, I just said the number of each step and continued to play the guitar. JT sang the melody accurately and independently the second time.

The next session the activity was presented, I had visuals to accompany the process. The visuals significantly increased his participation and ability to focus on activity. I had printed out a picture representing each step needed to go grocery shopping. JT was able to get make a list right away, and with additional verbal prompts he was able to decipher the picture meant taking a trip to the store. He was able to understand ideas, such as "pick up what is on the list" and "check price of items." When JT saw the picture of money in a wallet, and instead naming one of the steps (check how much money you have) he claimed that he never stole money, but stole candy as a child. He kept repeating that he no longer stole items from a store. I validated his feelings, and assured him that no one was accusing him of stealing anything. I learned in that moment that visuals may elicit associations for the client. I supported JT as he worked through

the emotion. When he was ready to resume the present activity, he was able to respond to the appropriate step in the grocery shopping process.

We discussed other activities that related to independent living, such as cooking favorite meals. Visuals were used to support the process. I had JT identify the steps of each activity, and then wrote each one down. JT improved upon identifying specific steps required to complete the activities. Figure 1 illustrates JT's ability to identify more and more steps each time, and includes the number of times client was able to come up with a step to an activity independently and the number of songs the client sung confidently were recorded over the course of the treatment period.

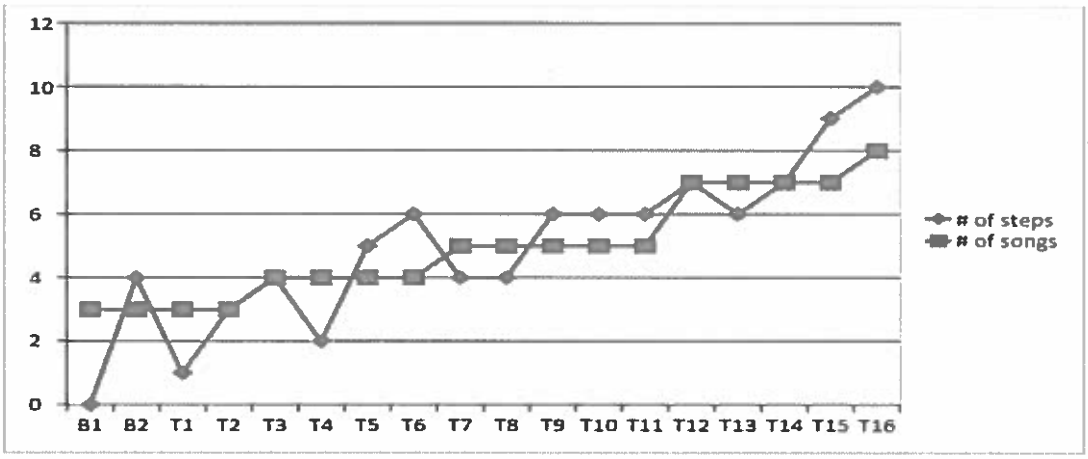

Figure 1. Treatment graph from 1/9/2013 to 3/22/2013.

After approximately a month of this work, JT started to brainstorm ideas without being prompted. I said, "So, we've been talking about different skills needed for you to be more independent…" and JT interrupted, "What about sub?!" When asked what he meant, JT said, "I would like to learn how to make a submarine (sandwich)." Het was praised for expressing himself clearly and directly. JT began to require less prompting from me and seemed to naming steps effectively and efficiently. I then assisted JT with fitting the steps into the melody of "All Shook Up." I was very pleased with the progress JT had made, he actively participated in the

songwriting and confidently sang the familiar songs we had been working on. Even though our sessions together were coming to an end, I knew I had effectively inspired him to write his own songs and make music creatively. Aasgaard (2005) discusses the importance of promoting an interest for songwriting, so once the process has started music-making and songwriting can occur when the music therapist is not present. It was important that JT realized he could still sing and create songs even when the music therapy sessions had ended.

Phase 8: Saying Goodbye

After 25 sessions, my time with JT was coming to an end. To facilitate closure of the therapeutic relationship, there were three sessions that were focused on termination. At the beginning of the first termination session, I said, "I am not going to help you with any of the songs." To my surprise, JT said very matter-of-factly, "You don't have to." I was very pleased to hear his confidence. I made the clinical decision to challenge JT because of the quality of our therapeutic relationship. After JT sang all of his regular songs, I felt it would be appropriate to discuss how far he had come during their time together. I quickly realized that this was too abstract for the client, and I adapted the topic to "what I've learned in music." I wrote a list on the white board, to sum up all of the sessions for JT and review what he had learned. A list of what JT articulated follows:

1) *Keeping the beat.* JT started clapping his hands and when I asked if he meant keeping the beat, the client nodded.
2) *Learning to sing well.* JT offered "learning to sing good."
3) *I learned that I am cool.* JT expressed how he felt "cool" when asked what he was good at. This demonstrated that he was building self-confidence as the song writing increased his self-esteem.

4) *Say goodbye when it is time to go home.* I attempted to have him point out how he made up his own words, singing the "hello" and "goodbye" song creatively. JT pointed out working on following directions and was comfortable in the routine of the sessions.
5) *I can speak up for myself.* JT said "speak up," and when I asked for who he pointed to himself. This demonstrated he felt empowered in the sessions and may apply it to his daily life.
6) *How to do stuff as an adult.* JT started to list all of the activities of daily living that were explored through the songwriting. After some encouragement, JT was able to verbalize it was important to have activities to increase independence.
7) *Help yourself achieve accomplishments.* The client said he learned how to do what he wanted to.

At the beginning of the second termination session, JT chose to do a new song. I picked out a song that JT had not participated in before, but he seemed confident he could learn it quickly. I was very proud to hear him express such confidence. I kept with the Motown genre that he seemed to relate to and pick up quickly. It was important to set him up for success so he could sing the song as independently as possible. It was also important to pick out a song that was sufficiently different that he did indeed feel like he was able to learn new songs more quickly than he had in the early sessions.

I used new songs in termination sessions to demonstrate how quickly JT could pick up songs on his own in the hopes that he would continue to engage with music on his own even though the music therapy sessions had ended. This independent way of thinking would hopefully do away with such a "learned helplessness" attitude, and he would have more confidence to do more for himself in everyday life as well. *Taught helplessness* comes from

years of being cared for in a large setting, and from staff not having the time to teach individuals how to perform essential living tasks on their own (Grunewald, 2003).

JT only hesitated briefly, saying, "I can't do this." However, he was then was able to sing along with the me. The second time through the song, JT needed very little help. JT repeatedly looked up from the lyric sheet, and I nodded at him to continue. This was enough encouragement for him to keep singing independently.

I made a simple flow chart so the client could visually see the progression of the sessions. The chart is found in Appendix A. He had difficulty with seeing the subtle differences between each part of the flow chart, but could see the major difference between the beginning sessions and the present sessions. This correlated with his diagnosis on the Autism Spectrum, having difficulty seeing abstract concepts but identifying concrete examples. Language that is non-literal is difficult for individuals with ASD to understand (Kern & Humpal, 2012, p. 26).

I once again used the flow chart for song writing at the third termination session. I explained the progression from listing strengths (building self-esteem) to breaking down the steps of accomplishing tasks (building independent living skills) to JT. Abstract concepts were difficult for JT, so I wanted to give him the visual of how the sessions progressed. I knew this would be a difficult concept for JT to grasp, but I wanted to give him as many opportunities as possible to understand the connection between all the work we did together. Once again JT was able to demonstrate an understanding of each tier on the flow chart, but had difficulty with the overall picture of how he had progressed. However, I did feel he understood that he had grown a great deal over the sessions and his self-confidence had improved.

I took the opportunity to impress upon JT the importance of continuing to use music as a way to cope with emotions, even after the music therapy sessions have ended. I wrote a song with blanks for the client to fill in. The underlined words are what JT added.

When I feel sad,

Music makes me feel better.

I have learned music can help me with my problems.

Even though I won't have sessions,

I still can use the computer to play music.

I know I am a very talented singer,

And I can do anything I put my mind to!

JT repeatedly commented that he would miss me and his music sessions. I said that I would miss him too, and that I understood his feelings. I told JT that I hoped he would continue to play music on his own. I was very impressed when he said he could lead music sessions with everyone at the program. I was glad to see JT had gained so much confidence over the eight months of our work together.

Phase 9: Moving Forward

The progress that JT made over the eight months in music therapy sessions shows the benefit that music therapy has in serving individuals with ASD. He was able to overcome his insecurity about singing, and built confidence as he sang lyrics that demonstrated his strengths. He was able to take a daunting task, and break it down into manageable steps, all while singing and elevating his mood. It also gave him an outlet for his stress and a way to cope with his emotions in a healthy way.

In the beginning, I had a behavioral approach in mind. However, I feel that the most important progress was more humanistic in nature. Even though I strongly feel that songwriting is an excellent way to teach new skills, there are other ways JT could learn independent living skills. The confidence that he had gained over the time we had together was the key to his success. The songwriting process gave him new perspective on how he viewed himself and how he went about solving a problem.

As the sessions progressed, psychodynamic music therapy became very important even though it was unintentional. As Grunewald (2003) found, *taught helplessness* among individuals living in a residential treatment setting is a major obstacle to overcome. At the beginning, JT constantly would say "I can't" when presented with a new activity. JT was most likely not even aware of how negatively he perceived his abilities since he automatically said that he could not do something without even trying first. Through our therapeutic relationship, JT became more aware of his competence and also his potential. Once his "I can't sing" was challenged in music therapy sessions, and JT realized he could sing, that made it possible for him to learn other activities through music. This mind shift from saying "I can't" to "I can" could then be generalized to his everyday life. Undoing years of *taught helplessness* through songwriting, could potentially empower individuals with ASD to learn skills they would otherwise believe was beyond their capabilities. This was the most important skill he acquired, even though it was not the initial goal of therapy.

This case study has demonstrated how music can facilitate the transition from dependency on staff in group settings, to independence in a setting of self-sufficiency. It is my hope that, this study will inspire other music therapists to consider how both behaviorally-

oriented therapy and psychotherapeutic elements can be integrated to more fully meet the needs of individuals with ASD to live happier and more fulfilling lives.

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Appendix A

Review of this Year's Music Sessions