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# An Exploration of Music Therapists' Perspectives on Preventing and Treating Postpartum Depression

Chengcheng Du

This research was completed as part of the degree requirements for the [Music Therapy](#) Department at Molloy College.

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An Exploration of Music Therapists' Perspectives on  
Preventing and Treating Postpartum Depression

A THESIS

Submitted in Partial Fulfillment of the Requirements

for the Degree of

Master of Science in Music Therapy

by

Chengcheng Du

Molloy College

Rockville Center, NY

May, 2016

MOLLOY COLLEGE  
 An Exploration of Music Therapists' Perspectives on  
 Preventing and Treating Postpartum Depression  
 by  
 Chengcheng Du

A Master's Thesis Submitted to the Faculty of  
 Molloy College  
 In Partial Fulfillment of the Requirements  
 For the Degree of  
 Master of Science  
 May 2016

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### **Abstract**

Music therapy has been proposed by many researchers and healthcare professionals (Beck, 2002; Simavli et al., 2014; Tseng et al., 2010) as an effective solution to treat Postpartum Depression (PPD). In this study, the causes of PPD, treatment and prevention of PPD, and the use and results of music therapy with pregnant women and/or mothers with PPD were examined to understand the effectiveness of music therapy and potential treatments for mothers with PPD. This qualitative study employed individual and semi-structured interviews of therapists working with women with PPD. All interviews were recorded and transcribed, then the data were summarized into four main categories of keywords. An analysis of individual and inter-categorical relationships was performed. The results suggested that music therapy is an effective approach of alleviating and preventing PPD, through creating a calm mental state, helping women develop confidence, building interpersonal connections and relationships, and decreasing negative thoughts. Music therapy can also be used as an adjunct treatment to counseling.

*Keywords:* Postpartum Depression (PPD); music therapy; effectiveness

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## Introduction

The transition of becoming a mother can be a much anticipated and important milestone for many women. The experience of motherhood is often filled with happiness as well as challenges. One significant source of challenge in becoming a mother lies in the act of childbirth itself, which may be a source of stress, anxiety, and pain. There are many additional issues that a mother could have after childbirth, such as anxiety, pain of laceration or laceration of the perineum, constipation, mood change, and postpartum depression (Liu, Chang, & Chen, 2010; Slimavli, Kaygusuz, Gumus, Usluogullan, Yildirim, & Kafali, 2014). This psychological distress paired with physical pain caused by childbirth may have a lingering impact on mothers, even to a degree that might require external intervention.

One of the most severe forms of psychological distresses in new mothers is postpartum depression (PPD). PPD is a non-psychotic depressive episode that begins in or extends into the postpartum period (Josefsson, Berg, Nordin, & Sydsjo, 2001). Among all causes of PPD, a sudden shift of hormones due to an unfavorable delivery experience is the most prominent. This hormone shift may “negatively impact postpartum psychiatric symptoms, sexual functioning, expectations about future births and connection between mother and infant” (Slimavli et al., 2014, p. 194). There are certain factors that increase the risk of a mother developing symptoms of PPD after childbirth. These include factors of physiological and psychological origins, such as family clinical history and genetics (Bhati & Richards, 2015; Browning, 2001; Liu et al., 2010; Phumdoung & Good, 2003; Slimavli et al., 2014; Tagore, 2009; Tseng, Chen, & Lee, 2010).

The findings of these studies resonated with my personal experience of childbirth with my first child last year. In the past year, I have experienced many challenges related to being a new mother, and the pain of the delivery exacerbated these challenges. For instance, when I saw my child’s face for the first time, I recalled the memory of my body trembling from pain, and this made me fear my child. My laceration made me physically uncomfortable for a month, which in conjunction

with my interrupted sleep schedule contributed to my bad temperament. These experiences all contributed to my increased anxiety and mood disturbance. I talked with my family members to seek their support, and as a music therapy student, I also tried to pursue relief through music. I was fortunate that music helped ease my symptoms. However, not everyone can be as fortunate as I was in finding such a powerful outlet to deal with pain and stress of this nature.

I shared my anxieties and my methods of coping with friends who were also new mothers. Though they each had tried several ways to relieve their postpartum conditions, such as exercise or walking, few of them were actually successful. Most of these new mothers could not find effective coping strategies to help manage their postnatal issues, which over time may have actually contributed to the worsening of their symptoms. Such symptoms were mainly associated with losing confidence in their mothering skills; in a few extreme cases, some experienced a decreased interest in their infants.

As a music therapy student, music has always provided me with a source of powerful support in self-expression and healing. With my desire to explore the use of music therapy with postpartum depression, this study was designed to discover the benefits of music therapy with postpartum mothers and the potential roles that music therapy has in promoting health amongst mothers and babies. Through this study, relevant literature was reviewed and results showed that under certain circumstances, music therapy can assist new mothers in improving their postpartum lives. This study also revealed that music may aid in fostering a bond (development of the relationship) between new mothers and their babies. Therefore, this study sought to investigate the musical qualities that might impact the formation of this relationship.

The method chosen for this study was in the qualitative paradigm. Bruscia (1995) stated that qualitative research is “a process wherein one human being genuinely attempts to understand something about another human being or about the conditions of being human by using approaches which take full advantage of being human” (p. 426). Specifically, I employed phenomenology to

explore these topics. Wheeler (2005) stated that phenomenology is an approach that allows researchers to study phenomena, such as a human experience, as an integral whole rather than dissecting phenomena into separate fragments to be studied. I interviewed music therapists to gain perspectives on their work with new mothers, and to garner the therapists' expertise regarding how using music with new mothers can be helpful. The role of music was explored, including its values and its meanings, in the context of postpartum treatments.

The central question for this thesis is:

“What is the impact and efficacy of music therapy on women with PPD?”

Sub-questions include:

1. What are the different perspectives of music therapists who are currently working with, or have previously worked with pregnant women and/or mothers who suffered from postpartum depression (PPD)?
2. What are the various ways of preventing PPD?
3. What are the effective and productive music therapy treatments for mothers with PPD?

## Literature Review

### Childbirth

Childbirth, can be painful, even can change one's perspectives on body image, lifestyle, social roles, and psychological status (Tseng, Chen, & Lee, 2010). For some, this experience may be less positive than typically expected (Simavli et al., 2014). Childbirth is oftentimes associated with pain and negative emotional states, including anxiety and stress (Browning, 2001). The painful delivery process can adversely impact a mother's mental health and may result in immediate PPD (Simavli et al., 2014).

### Postpartum Depression

Postpartum depression (PPD) has been described as “a dangerous thief that robs mothers of the love and happiness they expected to feel toward their newborn babies” (Beck, 2002, p. 453). It is a psychiatric disorder usually presenting as a major depressive episode (APA, 2000). According to Drozd, Brendryen, and Linning (2015), about 10 - 15% of women during pregnancy and after childbirth experience moderate to severe depressive symptoms. The prevalence of PPD has been reported to be as high as 25% in new mothers from underrepresented minority groups (Chaudron, Kitzman, Szilagy, & Sidora-Arocoleo, 2006).

PPD can occur during pregnancy and/or during the postnatal process, sometimes for up to as long as one year after delivery (O'Hara & Wisner, 2013), and can last for weeks or months (Regus, 2012). It can affect several areas of a woman's health, including physical, emotional, and behavioral domains (Regus, 2012). PPD may also have a detrimental effect on the infant due to decreased interactions with the mother (Simavli et al., 2014). Symptoms may vary depending on the severity of the PPD and can include sadness, hopelessness, anxiety, negative thoughts, lack of energy, and dependency (Horowitz & Goodman, 2005; Regus, 2012). According to the American Psychiatric Association (2000), the diagnosis of PPD can be categorized as experiencing depressed mood or loss of interest for a period of two weeks or longer. Meanwhile, additional symptoms present are

required for a diagnosis as well, such as significant weight loss, insomnia or hypersomnia, and recurrent thoughts of death or suicide (Horowitz & Goodman, 2005).

**The causes of PPD.** There are many factors that can cause PPD. Some possible underlying mechanisms of PPD may include: physiological responses during and after labor, psychological responses during and after labor, and other causes.

***Physiology during the labor.*** Childbirth pain can bring about psychological changes that lead to mood disorders (Simavli et al., 2014). During labor, most women will experience varying levels of pain intensity, and about 40% of women rate their pain experience as “severe” (Phumdoung & Good, 2003). These unpleasant, painful and anxious birth experiences can impact a mother’s postpartum health and may lead to immediate postpartum depression (Simavli et al., 2014).

***Physiology after the labor.*** According to Simavli et al. (2014), episiotomy, perineal laceration, or uterine involution may result in pain that disturbs the new mother’s mood stability, physical health, and mental status. Bhati and Richards (2015) and Brummelte and Galea (2015) purport that extensive shifts in hormones such as estrogen, progesterone, prolactin, and cortisol can result in circadian rhythm disturbance that contributes to postpartum depression.

***Psychology during the labor.*** Women may feel anxiety when first encountering the unknown labor process and labor pain (Liu et al., 2010). Browning (2001) found that stress and anxiety during the labor process can trigger the production and release of catecholamines, which work to decrease contractions. This extends the progression of labor, leading to prolonged discomfort in women during childbirth, which makes the laboring process an unpleasant experience and may become a potential cause for PPD.

***Psychology after the labor.*** The continued hormonal changes after labor also affect a new mother’s psychological status (Tagore, 2009). Poor psychological states during the postnatal period, such as serious stress or anxiety, will negatively impact a new mother’s health (Tseng et al., 2010). New mothers may feel guilty for being seemingly deficient in their maternal abilities. They may

also feel ashamed of having any negative thoughts during this period. Emotional despair may push new mothers into further postpartum depression (Beck, 2002). The role shift from a woman to a mother is a slow process, and insufficient preparation for the role shift may lead to anxiety and guilt to the mothers (Mercer, 2004).

**Other causes.** Infant nighttime feeding can impact a new mother's sleep quality and may result in sleep disturbances, thus potentially contributing to the development of PPD (Bhati & Richards, 2015). Stress related to childcare, environmental surroundings, poor marital relationship, and poor social support from friends and family are also potential causes of PPD (Bhati & Richards, 2015; O'Hara & Wisner, 2013; Tseng et al., 2010). Failure of a new mother to maintain her self-system, which includes self-image, body image, and her ideal image, may result in lower self-esteem and risk of maternal role failure; this can also be a potential cause of PPD (Mercer, 2004).

**Effects of PPD.** There are many documented ways in which PPD can negatively affect the lives of new mothers. Regus (2012) stated that PPD will result in a new mother's "excessive worry about caring for the baby; teariness; anxiety or panic; inability to sleep when the baby sleeps; difficulty doing regular tasks; inability to take pleasure in the baby" (p. 10). Mothers with PPD will also have "difficulties with attachment and bonding, behavioral disturbance, and changes in the pituitary-adrenal responses to stress" (Chaudron et al., 2006, p. 221). Furthermore, PPD will also impact a newborn baby's development indirectly, since newborns depend on the behavior of others to regulate their own reactions. Friedman, Kaplan, Rosenthal and Console (2014) stated that mothers and infants shape each other's behavior. Babies learn how to adapt to the world through experiences and repetition. Thus, without a mother's help and communication to guide the development of her baby, the baby's abilities to cope with the new world may be impacted.

### **Music and Childbirth**

The ability of music to provide pain relief and to reduce anxiety has made the application of music in pain management quite popular in the past two decades (Liu et al., 2010). In the context of

pregnancy and labor, music has proven to have multiple useful functions including helping the mother to focus on the labor process itself, distracting her from the pain, reducing pain, and stimulating her pleasure response afterward (Liu et al., 2010). During labor, music listening can stimulate relaxation and pleasure (Liu et al., 2010); it has been reported that music “can ease severe pain and delay the emotional escalation as sensation increases” (Phumdoung & Good, 2003, p. 59).

In addition to the delivery process, therapeutic music can promote relaxation to cope with anxiety, stress, and depression that occur during the labor process and the postpartum period (Buffum et al., 2006; Chang et al., 2008; Tseng et al., 2010; Schorr, 1993). Music can also act as a safe and free medium to help new mothers to make changes, to experience growth and recovery, as well as to facilitate relaxation and to promote a more positive atmosphere after delivery (Tagore, 2009; Wheeler, Shultis & Polen, 2005). In the paper published by Chan, Wong and Thayala in 2011, it was also revealed that listening to music could help reduce depressive symptoms in adults in general. For these reasons, music has become increasingly valuable as a therapeutic tool in the management of postpartum conditions in new mothers.

### **Music Therapy as a Treatment for PPD**

Music therapy is a musical, clinical, and professional approach that may be employed in the treatment of PPD (Beck, 2002; Simavli et al., 2014; Tseng et al., 2010). The American Music Therapy Association (AMTA) defines music therapy as a clinical and musical method to achieve physical, emotional, cognitive, and social goals designed for clients (AMTA, 2011). Bruscia (1998) also defined music therapy as “a systematic process of intervention wherein the therapist helps the client to promote health, using music experiences and the relationships that develop through them as dynamic forces of change” (p. 20). Treatment methods in music therapy can include:

- Improvisation experiences, such as group drumming.
- Recreative experiences, such as pre-composed music.
- Composition experiences, such as song-writing.

- Receptive experiences, such as music listening and music relaxation.

Traditional medical treatments for PPD include a wide range of psychological, pharmacological, and alternative options (O'Hara & Wisner, 2013). Medicinal intervention may not be ideal because of the potential side effects (Friedman et al., 2014) such as dry mouth, blurry vision, constipation, urinary retention, increase in insomnia and restlessness, sexual dysfunction and headaches (Santarsieri & Schwartz, 2015). Music therapy is a form of non-physically-invasive and non-pharmacological treatment with little likelihood of harmful physiological side effects (Tagore, 2009). Music therapy has demonstrated a positive impact on PPD symptoms and therapeutic benefits in facilitating positive mood changes in mothers (Simavli et al., 2014), and can be a positive source of support for mothers coping with the demands of a newborn.

There is evidence supporting the effectiveness of music therapy during the delivery of first-time pregnant women of reducing pain and tension which can lead to less risk of depression (Liu et al., 2010; Browning, 2001; Tagore, 2009; Simavli et al., 2014; Taghinejad, Delpisheh, & Suhrabi, 2010). Typically, mothers who focus on the pain or fear associated with labor may feel more anxious and stressed (Tagore, 2009). Fortunately, it has been observed that, with music therapy, a client's tolerance level to pain increases while the anxiety level decreases (Browning, 2001). A systematic review conducted by Zhao, Bai, Bo and Chi in 2016, also suggested that engagements in music therapy led to positive outcomes in reducing depressive symptoms and preventing aggression of the condition. Such research results suggest that music therapy can be both sufficient and effective for the treatment of the symptoms of PPD.

### **Significance**

Although there is evidence supporting the therapeutic use of music in providing relief of PPD symptoms, there is insufficient data to suggest that music therapy, as a treatment method, is widely accepted by mothers with PPD. It is difficult to measure the subjective and personal feelings of mothers with PPD quantitatively; there exist few articles that have actually evaluated the



effectiveness of music therapy in treating clients with PPD in a visible and measurable way. In order to provide support for the use of music therapy with mothers suffering from PPD, it is important to explore the overall benefits of music therapy for postpartum mothers and their babies. Thus this study examined the needs that music therapy may address with women with PPD, the types of music therapy methods and interventions utilized, and the benefits of engaging in music experiences. This was done in the context of the perspective of music therapists working with mothers at various stages on natal care.

### **Objectives**

The objectives of this study were:

1. To examine and compare the perspectives of music therapists who are currently working with, or have previously worked with pregnant women and/or mothers who suffered from postpartum depression (PPD).
2. To generate recommendations for pre- or postnatal women on accessing music therapy.
3. To offer the effective and productive music therapy treatments recommendation for mothers to treat PPD

## **Method**

This qualitative study involved individual semi-structured interviews of music therapists working with pregnant women or mothers with PPD. The semi-structured interviews included several open-ended guiding questions as well as questions designed to explore the experiences of using music through the music therapists' perspectives. The data gleaned from the interviews was coded, analyzed and interpreted using methods as presented below.

### **Design**

This research employed a conventional content analysis approach (Hsieh & Shannon, 2005) to conduct a combined descriptive and correlational study (Shaughnessy et al., 2000). Data was gathered through semi-structured interviews with four music therapists. The conventional content analysis approach by Hsieh and Shannon (2005) of identifying keywords was used, with slight modifications in the categorization of keywords. Keywords from the interview transcript were identified and captured, and their frequencies were quantitatively analyzed. Keywords were further sorted into categories depending on their central themes, to determine whether a relationship existed between them.

### **Participants**

Four board-certified music therapists (MT-BC) who are currently working with or have previously worked with the target client group of pregnant women and/or mothers with PPD, were interviewed for this research. All participants reported having worked with at least one client from the target group, with treatment lasting at least three months, in the past three years. The participants were recruited through convenience and snowball sampling. Based on the most recent AMTA workforce analysis, there is no delineation for music therapists who specifically serve the pre- or post-natal population (AMTA, 2015). It is inferred that individuals working with this population have been grouped into the category labeled as "Other(s)", which comprises only 19 of the 1,328 survey respondents. Due to the small number of music therapists who identify themselves

as serving this population, the sample size of four participants (N=4) for this study was deemed reasonable and acceptable. The basic demographic information of the four participants is summarized in Table 1.

Table 1. *Basic Demographic Information of Interviewees*

<b>First Initial</b>	<b>Number</b>	<b>Gender</b>	<b>AMTA Region*</b>	<b>Years in Practice</b>	<b>Level of Education</b>	<b>Approach</b>
H	1	Female	Mid-Atlantic	12	Master of Music, MT-BC	Psychodynamic, bio-psycho-social
K	2	Female	Great Lakes	17	Master of Music, MT-BC, Doula	Client-centered treatment approach, physiological birth
M	3	Female	Mid-Atlantic	10	Master of Music Therapy, MT-BC, Licensed Creative Arts Therapist	Holistic, psychodynamic, cognitive behavioral, humanistic
Y	4	Female	Western	25	Ph.D.in Education, MT-BC, Doula	Sound Birthing Method (created by the Sound Birthing Music)

\*Note: AMTA is divided into seven regions into the United States: Great Lakes, Mid-Atlantic, Midwestern, New England, Southeastern, Southwestern and Western.

## **Procedures**

A semi-structured interview was conducted with each of the participants. This allowed the researcher to follow the lead of the interviewees to obtain in-depth answers to open-ended questions, while the guiding questions ensured that the main topics were covered. Each interview lasted between one to two hours, depending on the interaction between the interviewer and the interviewee. The complete list of prompting questions can be found in Appendix A. The strategy of responsive interviewing was utilized, in which new questions were presented to interviewees immediately following their responses to the previous question. Other questions related to the topic also developed extemporaneously during the interviewing process. The researcher interviewed each

of the participants face-to-face or through online interview tools. Two interviews were conducted in person, one interview was conducted online through video chat on Google Chat, and one interview was conducted both in person and through Skype video chat. Each interview was audio-recorded using a recording pen. The recordings were saved for future reference. The data remained on the researcher's password protected computer for the duration of the study. Once submitted to faculty, all data will be securely stored for three years by the researcher, at which time the data will be destroyed as per policy of the Molloy College IRB which approved this research (Appendix B).

To ensure confidentiality and accuracy of the study, participant consent forms were kept in a secure location separate from the data (Appendix C & D). When transcribing interviews, each participant was assigned a pseudonym that would be consistent for all recorded data (transcriptions and journal notes throughout the study). All recorded data were stored in a password protected external hard drive, and accessed using a password protected desktop or laptop computer.

After the interviews, every interviewee received a gift valued at less than 10 dollars, and a "Thank you" email written by the researcher.

### **Keywords Analysis**

The process of finding keywords, or codes, in this research followed the conventional content analysis approach as illustrated by Hsieh and Shannon (2005) with a few slight modifications. Conventional content analysis using keyword frequency count approach was employed in this research. This approach of data analysis necessitates the use of the interviewee's own wording. Thus, each interview was transcribed. All identifying names or sensitive phrases that were unrelated to the keywords were carefully rephrased or entirely deleted in order to protect confidentiality. The researcher then analyzed the resulting transcripts, and the emerging keywords were highlighted. The keywords were then quantitatively analyzed and categorized by their meaning.

Using the interview transcriptions, keywords were identified by the researcher based on a moderate or close connection to music therapy and/or to postpartum depression. According to

Marcus (2009), mothers experience diverse kinds of new difficulties that may trigger depression. As such, all words related to possible difficulties and signs of depression were selected. Then, as one of the main topics of this research is music therapy, all words related to various forms of music, ranging from general music references to specific songs, were chosen. Lastly, words related to the possible objectives of music therapy were chosen (Chang, Chen, & Huang, 2008).

### **Data Analysis**

Data was collected between January 2016 and April 2016. Audio files were transcribed to create a text-based document for each interview. These interview transcripts were then used to generate interview summaries. Data was analyzed and coded, then categorized and interpreted. The researcher kept a reflexive journal in order to record personal reactions, concerns, thoughts and feelings as they occurred throughout the study.

The data analysis occurred in the following manner:

1. Each interview was transcribed.
2. Impressions of the interview were recorded.
3. The transcription of each interview was analyzed by labeling/coding the words, phrases, sentences, or sections based on concept, activities, and opinions.
4. Important categories for coding were created.
5. Categories were labeled and compared for relevance; inter-categorical relationships were analyzed/determined
6. Categories were interpreted.

After identifying the keywords, the next step was to analyze their frequency in the interview transcripts. The keywords were counted using the keyword finding function of Microsoft Word. The researcher then confirmed that the keywords were found in an appropriate context. If the keyword was not in an appropriate context related to the research topic, it was not counted towards the total frequency. The frequency of each keyword was quantified, recorded, and ranked from highest to

lowest frequency. Then, high-frequency words (greater than or equal to three times) were selected and were grouped into different categories. Each category was generalized into a common theme. To analyze the keywords, or codes, and to arrive at conclusions, the researcher assessed the relationship among the keywords, between keywords and their categories, and between categories. These categories and the interrelationships with and among keywords are presented below. The research used the following method to determine the categories: acknowledge of disorder, assessment of clients' needs, planning of the music therapy, and providing treatment with limited resource.

## Results

One inherent assumption in this research is that the words mentioned more often by the interviewees are of significant importance. Using the conventional content analysis approach, the frequencies of all keywords were quantified, and their relationships and importance were also established according to their relative frequencies.

A total of 40 high-frequency keywords were captured in the interviews. Synonyms were counted as one word if their dictionary definitions were perceived to mean the same. For example, the definition for *attachment*, according to the Merriam-Webster dictionary, is “strong feelings of affection or loyalty for someone or something” (Attachment [Def. 2], n.d.). Also based on the Merriam-Webster dictionary, the definition for *bonding* is similar, being “the process of forming a close relationship with someone” (Bonding [Def. a], n.d.). As such, they were counted as one keyword. *Fear* and *scare* were also counted together as they both can be interpreted as “to be afraid.” Different morphemes (nouns, verbs, adjectives, tenses etc.) of a word were also counted as one word. For example, anxiety and anxious were counted as one word. All keywords and their respective frequencies are listed in Table 2.

Table 2. *Keywords and Their Frequency of Appearance*

Keywords	Frequency
Music	187
Support	39
Song	35
Depression	33
Sleep (deprivation)	32
Thoughts	32
Calm	20
Teach/Teaching	19
Anxiety/Anxious	19
Attachment/Bonding	19
Trauma	18
Couple	18
Family	16
Relationship	15
Confidence	14
Resource	13
Playlist	12
Deep	12
Difficult/Difficulty	10
Lullaby	10
Sing/Singing	10
Cultural/Culture	9
Secure/Security	9
Believe	9
Communication	8
Training	7
Fear/Scare	7
Expect/Expectation	6
Social	6



Relax	6
Friend	5
Favorite	5
Loss/Lost	5
Husband	4
Counseling	4
Simple	4
Partner	4
Overwhelm	4
Isolation	3

As shown in Table 3, 10 keywords including *depression, sleep, anxiety/anxious, trauma, difficult/difficulty, fear/scare, expectation, loss/lost, overwhelm, and isolation* were selected and grouped together to form Category One.

Table 3. *Category One Keywords with Frequency*

Keywords	Frequency
Depression	33
Sleep (deprivation)	32
Anxiety/Anxious	19
Trauma	18
Difficult/Difficulty	10
Fear/Scare	7
Expectation	6
Loss	5
Overwhelm	4
Isolation	3

These keywords formed a unified theme of “Difficulties during pregnancy and/or the postnatal period” that commonly trigger PPD. Higher frequency words are more positively correlated with

the appearance of depression, and vice versa. The relationship between these ten keywords is illustrated in Figure 1.

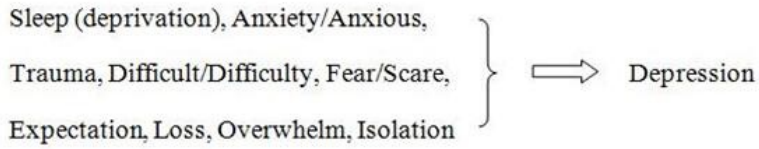


Figure 1. *Relationship between keywords in Category One and PPD*

As shown in Table 4, 10 more keywords, including *support, couple, family, relationship, communication, social, friend, counseling, partner, and husband* were grouped into Category Two.

Table 4. *Category Two Keywords with Frequency*

Keywords	Frequency
Support	39
(One of the) Couples	18
Family	16
Relationship	15
Communication	8
Social	6
Friend	5
Counseling	4
Partner	4
Husband	4

These keywords fall under the group of “The needs of pregnant women and/or postnatal mothers” that help relieve depression to suffering mothers. Their relationship with each other is illustrated in Figure 2.

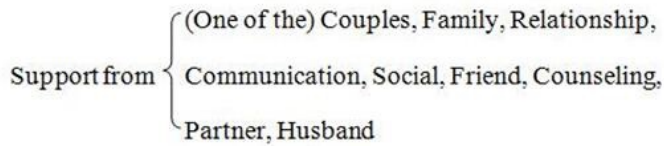


Figure 2. Relation between keywords in Category Two and PPD

As shown in Table 5, six keywords including *calm*, *attachment/bonding*, *confidence*, *secure/security*, *believe*, and *relax* were grouped into Category Three.

Table 5. Category Three Keywords with Frequency

Keywords	Frequency
Calm	20
Attachment/Bonding	19
Confidence	14
Secure/Security	9
Believe	9
Relax	6

These keywords described positive emotional states and were the ideal goals of effective music therapy. These keywords formed a category of “Goals of music therapy treatment.” Their relationship with each other is illustrated in Figure 3.

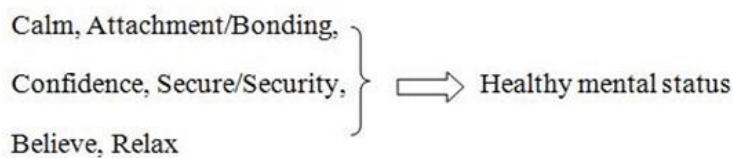


Figure 3. Relationship between keywords in Category Three and PPD

Finally, as shown in Table 6, nine keywords including *music*, *song*, *teach/teaching*, *resource*, *playlist*, *lullaby*, *sing/singing*, *training*, and *favorite* were grouped into Category Four.

Table 6. *Category Four Keywords with Frequency*

Keywords	Frequency
Music	187
Song	35
Teach/Teaching	19
Resource	13
Playlist	12
Lullaby	10
Sing/Singing	10
Training	7
Favorite	5

These keywords all represented various approaches that music therapists used to treat women with PPD thus this category was named “Techniques for treating mental health issues.” Their relationship with each other is illustrated in Figure 4.

Figure 4. *Relationship between keywords in Category Four and PPD*

**Uncategorized keywords.** There were four keywords that were unable to be placed into the four categories. These keywords were *thought*, *deep*, *simple*, and *cultural*.

## Discussion

### PPD and Four Keyword Categories

PPD is not an uncommon condition among new mothers. Some symptoms of PPD include depression, insomnia, and anxiety. As seen from Category One, “Difficulties during pregnancy and/or the postnatal period,” *depression*, *sleep (deprivation)*, and *anxiety* were all terms that occurred frequently throughout the interviews, indicating that they are a group of symptoms of PPD determined to be most common by the participants. As identified in the participants’ personal experiences, PPD can result from trauma, negative childhood memories, work experiences, miscarriages, stillborn or infant loss, family or social expectations for the mother or the baby, being emotionally and physically overwhelmed, isolation from society, and fear. Of all the triggers for PPD, trauma was mentioned most often, signifying that the effect of trauma, such as sexual trauma or cultural trauma, on mental health is viewed as the most serious.

As noted in the literature, a lack of a strong social network and support system can lead to PPD (Tseng et al., 2010). As a result, mothers with PPD have an urgent need to increase their communication with others, especially with their intimate partners or family members. However, the interviews revealed that mothers with PPD may isolate themselves, either voluntarily or involuntarily, from their families, relatives, friends and other social contacts. By gaining support and forming better relationships, the mental health of mothers suffering from PPD may improve. In this sense, support from family, partner, and friends is also crucial in preventing depression among pregnant mothers and in assisting the treating of mothers with PPD. In Category Two, “The needs of pregnant women and/or postnatal mothers,” it is also evident that a strong support system is essential to mothers with PPD since the keywords *support*, *couples*, *family*, and *relationship* were all mentioned with very high frequency.

Besides the need for social support and interaction, bonding with their infants is also important for mothers when coping with PPD symptoms. Category Three, “Goals of music therapy

treatment,” revealed that *confidence* and *attachment/bonding* were the most frequently occurring keywords, which suggests that mothers with PPD might undergo a difficulty interacting with the baby. The bonding between mothers and babies is vitally important and cannot be supplemented by other forms of interaction. Since the infant-mother bonding largely depends on the mother's ability and willingness to connect, lack of confidence and reluctance of interacting with the baby may endanger the relationship between the mother and the infant. On the other hand, confidence and a sense of security can help mothers create a strong relationship and/or attachment to their child. It also helps “to foster the development of parenthood before and after the baby is born,” as Participant 4 mentioned, and aids mothers in handling stressful events caused by their babies.

Because the participants were music therapists, and many of the interview questions focused on their use of music in working with the population, the word *music* was mentioned 187 times. This word was included in Category Four, “Techniques for treating mental health issues.” Through the content of the interviews, it became clear that the participants place great faith in the ability of music as a treatment modality with this population. Music, as the main treatment media and communication tool, is used by music therapists both *as* therapy and *in* therapy during the treatment process. Participant 4 stated, “Singing to the baby every night, spending quality time bonding together as a family... foster the development of parenthood.” Similarly, Participant 2 shared,

Through the lyric analysis or songwriting or a descriptive art using music to support imagery, so that during that bonding time with their baby, they [mothers] have a clear frame of mind to focus on the baby, because they already process those issues through music, and giving the mothers the tools to use their own voices in their own music with the baby as a way of bonding.

## **PPD and Central Research Question**

The central question of this thesis was to explore the impact and efficacy of music therapy on women with PPD. Within this examination is an exploration of the benefits of music therapy, the potential contraindications of music therapy, recommended music therapy interventions, and the possible impact of music therapy interventions. This analysis will be presented according to each category of data that was identified in the Results section of this paper. Data presented in this section illustrate that PPD symptoms such as depression and anxiety can impact new mothers and their loved ones.

**Support.** Participant 1 stated that a primary means of preventing and treating depression is support. As discussed earlier in Category Two, most of the support comes from the mothers' partners, parents, and friends. However, it may be necessary for a deeper level of support than these individuals are able to provide, thus requiring clinical treatment. Music therapy and the relationships that develop within the therapy setting can teach both mothers and their loved ones to establish relationships while offering another means of support. Music therapy experiences can be designed to help the mother to increase communication, gain support, and form better relationships with others. Participant 4 stated that music therapists “are there to support family,” and they can “help the mother and father (or partner) to have a much closer relationship and be better parents.”

**Confidence.** Music therapy for the treatment of depression has been found to be an effective (Beck, 2002; Simavli et al., 2014; Tseng et al., 2010), non-physically-invasive, and non-pharmacological treatment with little likelihood of harmful physiological side effects (Tagore, 2009). Music therapy can promote a stable and healthy mental status, assisting clients in developing confidence and a calm state of mind. Confidence is important in general to the mothers' wellbeing, and it is very important “especially when the mother-baby attachment needs to happen.” As Participant 3 stated,

The process in therapy [can] help the moms increase their confidence and willingness to find their voice again, to share it, and then talk about that, what that was like, and to help them continue to do that... It is to help the mom learn how to relax and to gain access to the inner strength ... the work it's strengthening and resourcing.

Confidence contributes to the establishment of strong relationships between parents and their children and in maintaining relationships with other family members.

**Carryover effects of music therapy.** When implementing music therapy, it is essential for the therapist to understand how to meet the treatment goals and which approaches should be used. As stated by most interviewees, typical music therapy techniques such as song-singing and music imagery can help clients immediately. However, clients also need support and help when the therapists are not present. Therefore, teaching and training the mothers and their loved ones how to use the mothers' favorite music to create a playlist that can help offer long-lasting support, facilitate communication, and improve relationships. As Participant 2 stated, "The overarching focus is to teach the parents how they can use music outside of class... and to show them also how to engage music." Participant 4 also stressed that the music therapist teach the parents to use music as a resource in everyday life. She encourages the use of recorded music. With recorded music, the parents typically have easy access and can use it anytime. This may offer the parents long-lasting support that can be called upon when needed.

**Uncategorized keywords.** There were four important keywords that were unable to be placed into the four categories. These keywords were *thought*, *deep*, *simple*, and *cultural*.

**Thought.** *Thought* refers to the mental process that goes on in mind and can dictate a person's feelings and actions. Because PPD is essentially a psychological disorder, the accumulation of unwanted negative thoughts is fundamentally the culprit that leads to a depressed mental state



(O'Hara & Wisner, 2013). With the help of music therapy, negative thinking can be controlled, thus lowering the risk of developing depression in pregnant mothers. Participant 2 expressed:

We know that music engages areas of our brain from motor planning, to memory and speech, in almost every area, but when we are singing, it's hard for our bodies and our brains to stay, and fight or flight, because it requires our brain to be more subdued instead of remaining a status on high alert... It will subdue the depression because [it causes the brain to] be more open to receiving the oxytocin and dopamine... to reduce cortisol levels in [the mother's] brain.

Thus, inhibiting or eliminating negative thoughts and encouraging positive thoughts can help treat and prevent PPD. Since music therapy can be effective in reducing negative thoughts, the mothers engaging in this treatment may have a lower risk of developing depression.

***Deep and simple.*** On first consideration, the terms *deep* and *simple* may seem unrelated, and even opposite in meaning. In the interviews, these terms were related to the possibility that music therapy might evoke strong feelings related to trauma history thus potentially leading to re-traumatization. In general, the notion that interventions that were deemed too *deep* were contraindicated for this population. All of the interviewees indicated that they do not use music therapy techniques such as vocal holding or the Bonny Method of Guided Imagery and Music (BMGIM) with pregnant women or mothers suffering from PPD because these particular techniques involve very intense and regressive psychological work. Rather, mothers need help addressing current issues so that they can function on a daily basis first before deeper issues can be addressed. Thus, the need for *simple*. Music therapy is equally effective in addressing issues on a supportive level, and by using musical characteristics such as rhythm, harmony, melody, and dynamics. Techniques such as singing, songwriting, lyric analysis, and supportive music and imagery can address the needs of the mothers without the risk of re-traumatization.

**Cultural.** Cultural factors often shape one's mental state (Slimavli et al., 2014). In order to treat depression, music therapists need to identify and understand the various cultural factors in the client's personal life that affect their mental well-being. Participant 3 believed that different cultures impose different influence on mothers and their involvement in the community, and she believes that "if we identify cultural issues that are playing into personal situations ... either from others possibly contributing to her problem ... [it] is important to identify the reasons for the negative thoughts and then the potential solutions." Participant 2 also believes that "society's expectations [for new mothers are] completely out of whack which creates a lot of anxiety, leading to feelings of worthlessness or [being] overwhelmed by stressful events."

### **PPD and Sub-questions**

**Music therapy in prenatal care.** A common opinion that the participants expressed in that music therapy can prevent or lower the risk of having PPD during the prenatal period. This is significant because the focus is on the prenatal time period and on prevention of PPD, rather than treatment of symptoms in the postnatal period.

The common music therapy techniques that the therapists use in sessions are: music listening, lyric analysis, and music imagery. Moreover, music therapists emphasize different areas for preventing and treating PPD. For example, participant 2 focuses on "assessing clients musical preference and sort of being able to intuitively design [their preference into] musical programs." She believes that the surrounding physical support - family members and music - are important. Participant 3 focuses on working through thoughts, and going "at the mothers' pace, gently and slowly, and to help them to regain their sense of safety and security [in music therapy sessions]." She believes that modulating the mind from negative thoughts is important for mothers. Both Participants 1 and 4 focus on "training [the mothers and their partners] how to create their playlist by using their favorite music" and offering live music therapy assistant during the labor. They

believe that prenatal education and training is the most important step for both the mothers' wellbeing.

**Music therapy to prevent PPD in the postnatal period.** Music therapy has been highly successful in helping clients alleviate unpleasant feelings or bad memories of childbirth and has the potential to engender positive feelings and thoughts. Music therapy techniques, such as song-singing, music imagery and lyric analysis, as employed in the treatment process, can impact clients through their emotional, creative, and structural characteristics. The clients' favorite music and/or songs are often the primary resources used during therapy. The music therapist, using her clinical judgment may make other recommendations. This might occur when the trained therapist believes that the preferred music of the client may have a negative impact on the client, or when the clients' favorite song might impose risks of re-experiencing trauma (Browning, 2001; Friedman, Kaplan, Rosenthal, & Console, 2014). Participant 2 offered a suggestion for this potential situation. She suggested that the music therapist could offer different versions of the song to the client to choose. In her work, she shared utilizing an instrumental version of a favorite song, because her client "didn't need to hear the lyrics necessarily over and over, because she could connect to the instrumental version of the song, that's sort of passing in a different way."

**Music therapy techniques in treatment of PPD.** As indicated in the interviews, it was found that there are two strategies used by the music therapists that have shown to be valuable for research and for improving future treatment processes. The first is a treatment strategy in which the therapist helps the clients reveal their deep feelings and analyze their thoughts with the therapist from an objective perspective. This strategy involves the therapist helping the mothers voice their thoughts into their favorite music. The therapist writes the thoughts down and reads the thoughts together with the mothers later, followed by a technical analysis of the words. This strategy has demonstrated a reduction in anxiety and guilt that the clients may have and subsequently helped them avoid negative thought patterns such as, "It is my bad thought, it comes from me, I should not

have this kind of thought” (Participant 3). The second strategy identified in the interviews is to maintain the clinical process, taking into account such psychological phenomena of transference and countertransference. The process should include but not be limited to: consent forms, assessment, treatment plan, documentation, evaluation, and termination. These steps can help the therapist maintain clinical judgment and help the therapist manage the treatment process clearly. This allows the therapist to consider the needs and resources of her clients. Participant 4 find that these steps also offer the clients a predictable framework and to reduce the rates of treatment withdrawal.

### **Recommendations for Music Therapy Treatment of PPD**

Based on methodologies that music therapists employ, the needs that clients have, and the resources that clients are able to invest, there can be many variables in the parameters of the treatment process. Such parameters include session length and number of sessions. The appropriate length of a session can be anywhere from 45 minutes (Participant 1 & 3) to 150 minutes (Participant 2 & 4). The number of sessions is dependent on the clients’ needs and growth (Participants 1 & 3) and their budgets and time available to invest in the program (Participants 1, 2, & 4). Thus, treatment can be a single session to a long series of sessions. Music therapy is very flexible, it can provide support to mothers during the sessions but can also teach the mothers how to provide support to themselves outside of the sessions. It also offers “training to family members, partners or friends on how to offer support to mothers experiencing PPD” (Participant 4).

Treatments for PPD can include psychological, pharmacological, and alternative options (O'Hara & Wisner, 2013). Music therapists utilize a combination of both musical and nonmusical resources to create the treatment plan. Some non-musical treatments, such as counseling, are also utilized during the music therapy process. Participant 1 noted that music therapy techniques can be successfully implemented in conjunction with traditional treatment, such as counseling, especially “when the clients don’t want to talk at all.” This combination has been found to boost the results of

non-musical treatment alone, demonstrating the efficacy of music therapy. Therefore, music treatments can serve as a strong supplementary tool to complement and reinforce the effects of conventional methods of treatments.

Music therapy also has limitations. For women who are experiencing “intrusive and/or suicidal thoughts or complete insomnia, may require medical intervention such as medication or referral to a higher level of care” immediately (Participant 2). Music therapy cannot meet all needs of all clients. It is important to recognize the various levels of music therapy training in acknowledging scope of practice. Music therapists should be aware of the boundaries of the profession and to make appropriate decisions to avoid obstructing the clients' access to the proper level of care of their needs.

In treating mothers, challenges can arise for the therapists. During the treatment process, a client's experiences may trigger traumatic memories that the therapist has experienced in the past. As participant 2 stated, “Their (mothers’) trauma triggering my own experience. Being a mother, I feel like I’m susceptible.” Therapists who are also parents may experience vulnerability and thus become overly empathetic with the client. Music therapists should be highly aware of the transference and countertransference that can occur in order to maintain appropriate clinical judgment. Self-care is also invaluable.

### **Study Limitations**

The original intention of conducting this research was to focus on the application of music therapy to the treatment of PPD. However, throughout the course of interviews and data collection, the researcher realized the difficulty in finding interviewees who conducted conventional music therapy work with mothers suffering from PPD. Many music therapists who work with pregnant mothers focus more on preventing PPD before labor. Others who work with mothers with PPD are not credentialed music therapists but are individuals that use music to accompany their treatment sessions. This differs from a music therapist who is trained to use music as a treatment modality.

Due to the small number of music therapists who identified themselves as serving this population, it was very hard to find competent candidates to interview. PPD prevention was added as a focus of this study so that four interviewees could be identified and interviewed.

Literature that focuses on music therapy and PPD is very limited. A portion of the literature identifies that music is used in therapy sessions by music therapists, or that music is used in therapy sessions by non-music therapists. However, only very small portion of the literature discusses how music is used as a therapeutic tool by music therapists. The lack of music therapists working with the PPD population and the lack researchers studying the PPD population are evidently problematic for this population that is growing in numbers.

It is also important to note that this study focuses on the perspective of the music therapists working with mothers, and not the clients' perspectives. This is a valuable source of information, but cannot capture the perspective of the clients who may actually engage in this treatment.

## Conclusion

Depression is not uncommon among prenatal and new mothers as they experience many unfamiliar challenges during this period. Music therapy is one effective tool in the prevention of PPD in new mothers and treating mothers who are affected by depression. Through the information that all participants offered, music therapy can help the mothers reduce anxiety, depression, and isolation, reduce the risk of traumatization, increase confidence, and facilitate communication and interaction. By utilizing appropriate music resources, musical techniques, and music approaches, music therapy may create a calm and positive mental state in clients.

Through engagement in music therapy, mothers have the opportunity to develop the confidence they need to build a healthy and strong social network that would, in turn, support and reinforce a healthy mental state. Music therapy can decrease negative thoughts and help lower the risk of depression among new mothers. PPD is more than just depression or mood disorder associated with pregnancy and birth; it should be treated as a spectrum of postpartum wellness. In addition, it is important for music therapists to work closely with other healthcare professionals, including counselors, psychotherapists, and psychiatrists, to provide customized care that fits each individual client's needs.

## References

- American Music Therapy Association (AMTA). (2011). Definition and quotes about music therapy. Retrieved from <http://www.musictherapy.org/about/quotes/>
- American Music Therapy Association (AMTA). (2015). 2015 AMTA member survey and workforce analysis: A descriptive statistical profile of the AMTA membership. Retrieved from <http://www.musictherapy.org/assets/1/7/15WorkforceAnalysis.pdf>
- American Psychiatric Association (APA). (2000). Diagnostic and statistical manual of mental disorders DSM-IV TR (text revision). Arlington, VA: American Psychiatric Association. Retrieved from <http://www.mededppd.org/dsm.asp>
- Attachment [Def. 2]. (n.d.). *Merriam-Webster Online*. In Merriam-Webster. Retrieved April 29, 2016, from <http://www.merriam-webster.com/dictionary/attachment>
- Beck, C. T. (2002). Postpartum depression: A metasynthesis. *Qualitative health research, 12*(4), 453-472. doi:10.1177/104973202129120016
- Bhati, S. & Richards, K. (2015). A systematic review of the relationship between postpartum sleep disturbance and postpartum depression. *AWHONN, the Association of Women's Health, Obstetric and Neonatal Nurses*. doi:10.1111/1552-6909.12562
- Bonding [Def. a]. (n.d.). *Merriam-Webster Online*. In Merriam-Webster. Retrieved April 29, 2016, from <http://www.merriam-webster.com/dictionary/bonding>
- Bonnie, K. N. (2015). Qualitative research: Sampling and sample size considerations. Tulane University. Retrieved from [https://my.laureate.net/Faculty/docs/Faculty%20Documents/qualit\\_res\\_\\_smpl\\_size\\_considerations.doc](https://my.laureate.net/Faculty/docs/Faculty%20Documents/qualit_res__smpl_size_considerations.doc)
- Browning, C. A. (2001). Music therapy in childbirth: Research in practice. *Music Therapy Perspectives, 19*(2), 74-8. doi:10.1093/mtp/19.2.74
- Brummelte, S. & Galea, L. A. M. (2015). Postpartum depression: etiology, treatment and consequences for maternal care. *Hormones and Behavior*. doi:10.1016/j.yhbeh.2015.08.008



- Bruscia, K. E. (1998). *Defining music therapy (2<sup>nd</sup> ed.)*. Gilsum, NH: Barcelona Publishers
- Buffum, M. D., Sasso, C., Sands, L. P., Lanier, E., Yellen, M., & Hayes, A. (2006). A music intervention to reduce anxiety before vascular angiography procedures. *Journal of Vascular Nursing, 24*, 68-73. doi:http://dx.doi.org/10.1016/j.jvn.2006.04.001
- Chan, M., Wong, Z., & Thayala, N. (2011). The effectiveness of music listening in reducing depressive symptoms in adults: A systematic review. *Complementary Therapies In Medicine, 19*(6), 332-348. http://dx.doi.org/10.1016/j.ctim.2011.08.003
- Chang, M.Y., Chen, C.H., & Huang K. F. (2008). Effects of music therapy on psychological health of women during pregnancy. *Journal of Clinical Nursing, 17*(19): 2580-7. doi:10.1111/j.1365-2702.2007.02064.x
- Chaudron, L. H., Kitzman, H. J., Szilagyi, P.G., Sidora-Arocoleo, K., & Anson, E. (2006). Changes in maternal depressive symptoms across the postpartum year as well child care visits. *Ambulatory Pediatrics: The Official Journal of the Ambulatory Pediatric Association, 6*(4), 221-224. doi:10.1016/j.ambp.2006.04.003
- Drozd, F., Haga, S. M., Brendryen, H., & Linning, K. (2015). An internet-based intervention (Mamma Mia) for postpartum depression: Mapping the development from theory to practice. *Journal of Medical Internet Research, Research Protocols, 4*(4): e120. doi:10.2196/resprot.4858
- Friedman, S. H., Kaplan, R. S., Rosenthal, M. B., & Console, P. (2014). Music therapy in perinatal psychiatry: Use of lullabies for pregnant and postpartum women with mental illness. *Music and Medicine, 2*(4), 219-225. doi: 10.1177/1943862110379584
- Galassi, F. M., Boni, T., Rühli, F. J., & Habicht, M. E. (2016). Fight-or-flight response in the ancient Egyptian novel "Sinuhe" (c. 1800 BCE). *Autonomic Neuroscience, 195*, 27-28. doi:10.1016/j.autneu.2016.02.006

- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 1*(9), 1277-1288. doi: 10.1177/1049732305276687
- Horowitz, J. A. & Goodman, J. H. (2005). Identifying and treating postpartum depression. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 34*, 264–273. doi: 10.1177/0884217505274583
- Josefsson, A., Berg, G., Nordin, C., & Sydsjo, G. (2001). Prevalence of depressive symptoms in late pregnancy and postpartum. *Acta Obstetrica et Gynecologica Scandinavica, 80*(3), 251-255. doi: 10.1034/j.1600-0412.2001.080003251.x
- Liu, Y., Chang, M. & Chen, C. (2010). Effects of music therapy on labour pain and anxiety in Taiwanese first-time mothers. *Journal Of Clinical Nursing, April:19*(7-8), 1065-1072. doi: 10.1111/j.1365-2702.2009.03028.x
- Marcus, S. M. (2009). Depression during pregnancy: Rates, risks and consequences. *The Canadian Journal of Clinical Pharmacology, 16*(1), 15-22
- Mercer, R. T. (2004). Becoming a mother versus maternal role attainment. *Journal of Nursing Scholarship, 36*(3), 226-232. doi: 10.1111/j.1547-5069.2004.04042.x
- O'Hara, M. W. & Wisner, K. L. (2013). Perinatal mental illness: Definition, description and aetiology. *Clinical Obstetrics and Gynaecology, 28*(1). doi:10.1016/j.bpobgyn.2013.09.002
- Phumdoung, S. & Good, M. (2003). Music reduces sensation and distress of labor pain. *Pain Management Nursing, 4*(2), 54-61. doi:10.1016/S1524-9042(02)54202-8
- Regus, P. J. (2012). Postpartum depression: Standardizing motherhood? *Dissertation, Georgia State University*. Order No. 3533722. Retrieved from [http://scholarworks.gsu.edu/cgi/viewcontent.cgi?article=1063&context=sociology\\_diss](http://scholarworks.gsu.edu/cgi/viewcontent.cgi?article=1063&context=sociology_diss)
- Santarsieri, D. & Schwartz, T. L. (2015). Antidepressant efficacy and side-effect burden: A quick guide for clinicians. *Drugs Context, 4*: 212290. doi:10.7573/dic.212290

- Schorr, J. A. (1993). Music and pattern change in chronic pain. *Advances in Nursing Science, 15*, 27-36. doi:10.1097/00012272-199306000-00004
- Shaughnessy, J. J., Zechmeister, E.B., & Zechmeister, J. S. (2000). *Research Methods in Psychology*. New York: McGraw-Hill
- Slimavli, S., Kaygusuz, I., Gumus, I., Usluogullan, B., Yildirim, M., & Kafali, H. (2014). Effect of music therapy during vaginal delivery on postpartum pain relief and mental health. *Journal of Affective Disorders, 156*, 194-199. doi:10.1016/j.jad.2013.12.027
- Taghinejad, H., Delpisheh, A., & Suhrabi, Z. (2010). Comparison between massage and music therapies to relieve the severity of labor pain. *Women's Health, 6*(3), 377-381. <http://dx.doi.org/10.2217/whe.10.15>
- Tagore, T. (2009, Spring). Why music matters in childbirth. *Midwifery Today, (89)*:33-4, 67-8. Retrieved from [www.midwiferytoday.com](http://www.midwiferytoday.com)
- Tseng, Y-F., Chen, C-H., & Lee, C. S. (2010). Effects of listening to music on postpartum stress and anxiety levels. *Journal of Clinical Nursing, April:19*(7-8), 1049–1055. doi:10.1111/j.1365-2702.2009.02998.x
- Wheeler, B. L., Shultis, C. L., & Polen, D. W. (2005). *Clinical training guide for the student music therapist*. Gilsum, NH: Barcelona Publishers
- Zhao, K., Bai, Z., Bo, A., & Chi, I. (2016). A systematic review and meta-analysis of music therapy for the older adults with depression. *International Journal of Geriatric Psychiatry, April 19*. <http://dx.doi.org/10.1002/gps.4494>

## Appendix A

## Possible Interview Questions Prepared in Advance of Interviews

1. How many years of experience have you had, in treating PPD clients as a music therapist?
2. What is your understanding of postpartum depression?
3. What are the most common physical and emotional symptoms when they first approach you?
4. In general, approximately how many therapy sessions have mothers received?
5. Could you tell me about your strongest professional area in working with the mothers?
6. What types of music would you use during treatment sessions?
7. What music therapy techniques do you most commonly use during treatment sessions?
8. What are the criteria that you use to determine the best therapeutic techniques that you would use on a client?
9. What are some of the cultural factors that you have encountered, which changed your treatment process if any?
10. What are the main effects that PPD have on the physical, psychological, social and financial wellbeing of new mothers?
11. What are the potential roles that music therapy may have in promoting health amongst mothers and babies?
12. Have you ever encountered clients that withdrew before the completion of their treatments?  
Why?
13. What are some factors that you believe, or know, that contributed to their withdrawal?
14. What are the potential contraindications of music therapy in working with postpartum mothers?
15. Have you ever encountered a dilemma in clinical reasoning, during your career as a music therapist?

16. Are there any aspects that you would like to make any improvements in when working with Mothers with PPDs?
17. How do you think this interview will affect music therapists who are not familiar with PPD clients?
18. Is there any feedback that you would like to provide regarding this interview session?

## Appendix B

## IRB Approval Letter



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Rockville Centre, NY 11571  
[www.molloy.edu](http://www.molloy.edu)

Tel. 516.323.3801  
Tel. 516.323.3711

Date: December 21, 2015  
To: Heather Wagner for Chengcheng Du  
From: Kathleen Maurer Smith, Ph.D.  
Co-Chair, Molloy College Institutional Review Board  
Patricia Eckardt, Ph.D., RN  
Co-Chair, Molloy College Institutional Review Board

**SUBJECT: MOLLOY IRB REVIEW AND DETERMINATION OF EXEMPT STATUS**  
**Study Title: An Exploration of Music Therapists' Perspectives on Postpartum Depression Mothers**  
**Approved: December 21, 2015**

Dear Professor Wagner for student Chengcheng Du:

The Institutional Review Board (IRB) of Molloy College has reviewed the above-mentioned research proposal and determined that this proposal is approved by the committee. It is considered an EXPEDITED review per the requirements of Department of Health and Human Services (DHHS) regulations for the protection of human subjects as defined in 45CFR46.101(b) and has met the conditions for conducting the research.

You may proceed with your research. Please submit a report to the committee at the conclusion of your project.

Changes to the Research: It is the responsibility of the Principal Investigator to inform the Molloy College IRB of any changes to this research. A change in the research may change the project from EXPEDITED status that would require communication with the IRB.

Sincerely,

Kathleen Maurer Smith, Ph.D.

Patricia Eckardt, Ph.D., RN

## Appendix C:

## Invitational Email Informed Consent for Participant

Dear Music Therapists,

My name is Chengcheng Du. As part of the requirement for my music therapy graduate thesis course at Molloy College, I am conducting a research study called *An Exploration of Music Therapists' Perspectives on Preventing and Treating Postpartum Depression*. The purpose of this study is to examine different perspectives of music therapists working with mothers diagnosed with Postpartum Depression (PPD). The following research questions will guide this study:

1. What are the potential benefits of music therapy in working with postpartum mothers?
2. What are the potential contraindications of music therapy in working with postpartum mothers?
3. What is the experience of music using when working with postpartum mothers?

If you are receiving this email, you have been referred to this study by an experienced board-certified music therapist or through the identification of your work with the American Music Therapy Association. The participant requirements are that you:

1. Are a board-certified music therapist who is currently working with or who has experience working with PPD mothers.
2. Have worked with one postpartum client for more than three months.
3. Have had at least one postpartum client in the past three years.

If you meet these criteria, I invite you to participate in this study. This study will examine questions such as why to use music, potential uses of music, the benefits of engaging in music experiences, and exploring the experiences of music through the music therapists' perspectives. The interview will take approximately one hour, and will occur either in person or through online videoconferencing.

Audio records, transcriptions of interviews and written notes will be securely stored by the researcher in a private hard-drive and notebook, with access granted only to the researcher. All the

participants' names will be changed to protect confidentiality. The researcher will keep all of the responses anonymous. After the study is finished, the data and the notebook will be safely kept by the researcher for three years. After three years, all of the data will be deleted, and the notebook will be shredded.

The results of this study will have no direct benefits to you as a participant, but the findings of this study may benefit the field of music therapy. The results may be beneficial to students, educators, and supervisors. This study may help readers more fully understand the role of music therapy in working with postpartum mothers, explore the role of music, and the value of music as therapy in the context of postpartum treatment. It may also lead to future research.

This study will consist of interviews of music therapists, thus there are minimal risks to the participants. Participation is voluntary. You can decline to answer questions that may cause discomfort, and withdraw from the study anytime. Refusal to participate will involve no penalty or loss of benefits. If you wish to receive the results of the study, please contact me below.

Thank you for your time and consideration,

Chengcheng Du

Master of Music Therapy Candidate, 2016

Molloy College

Cdu@lions.molloy.edu

Tel: 718-450-2103 (Text message only)

Faculty Advisor:

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## Appendix D

### Consent Form

#### Research Study: An Exploration of Music Therapists' Perspectives on Preventing and Treating Postpartum Depression

##### The Purpose of the Study:

The purpose of this study is to examine different perspectives of music therapists working with mothers who have prenatal and/or postnatal depression. The following research questions will guide this study:

1. What are the potential benefits of music therapy in working with pregnant women or mothers with prenatal and/or postnatal depression?
2. What are the potential contraindications of music therapy in working with pregnant women or mothers with prenatal and/or postnatal depression?
3. What is the experience of music using when working with mothers with pregnant women or prenatal and/or postnatal depression?

##### Study Description:

The research study will require participation in an individual, semi-structured interview with the researcher that will take about one hour. The semi-structured interview will include several guiding questions focusing on such questions as why to use music, potential uses of music, and the benefits of engaging in music experiences for this population, as well as exploring the experiences of music through the music therapists' perspectives. The interview will take approximately one hour, and will occur either in person or through online video conferencing.

##### Participant Selection:

The participant requirements are that you:

1. Are a board-certified music therapist who is currently working with or who has experience working with mothers with prenatal and/or postnatal depression.
2. Have worked with one client with pregnant women or prenatal and/or postnatal depression for more than 1 month.
3. Have had at least one client with pregnant women or prenatal and/or postnatal depression in the past three years.

#### Study Procedures:

This study is a phenomenological inquiry in which your work with mothers identified as having prenatal and/or postnatal depression. Individual, semi-structured interviews will be the primary source of data for the study. A semi-structured interview approach will be employed so the researcher can utilize guiding questions while still allowing her to follow the lead of the interviewees. The philosophy of “responsive interview” will be utilized, which presents new questions to interviewees in immediate response to their narratives. Audio files will be transcribed to create a text-based document for each interview. These interview transcripts will then be used to create interview summaries. The researcher will keep a reflexive journal in order to record personal reactions, concerns, thoughts and feelings as they occur throughout the study.

#### Benefits & Risks:

The results of this study will have no direct benefits to you as a participant, but the findings of this study may benefit the field of music therapy. The results may be beneficial to students, educators, and supervisors. This study may help readers more fully understand the role of music therapy in working with postpartum mothers, explore the role of music, and the value of music as therapy in the context of postpartum treatment. It may also lead to future research. Because this study consists of interviews, there are minimal risks to the participants.

#### Confidentiality:

Anonymity will be achieved by keeping documented informed consent forms in a secure location separate from the data. When transcribing participant interviews, each participant will be assigned a pseudonym that will be consistent for all recorded data (transcription, journal notes, throughout the study write-up). All recorded data will be stored a password protected external hard drive, and will be opened using a password protected desktop or laptop computer.

The data will be used to gain insight on the phenomenon explored in the study. The data will remain on the researcher's password protected computer for the duration of the study. Once submitted to faculty, all stored data will be deleted.

#### Sharing of Results:

Participants may request a copy of the results. The results of this research study may be presented at professional and educational meetings or published in professional journals.

#### Participant's Rights:

Participation in the study is completely voluntary and you may withdraw from the study at all time through verbal or written notification. If a participant wishes to withdraw during an interview, the interview will stop and all recorded information will be deleted. If a participant wishes to withdraw after the interview and before publication, all recorded information will be deleted.

If you have any questions or concerns about this research, its procedures, or its risks and benefits, please do not hesitate to contact the researcher or the faculty advisor.

Chengcheng Du

Molloy College

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Tel: 718-450-2103 (Text message only)

Faculty Advisor:

Heather Wagner, PhD, MT-BC

Molloy College

[hwagner@molloy.edu](mailto:hwagner@molloy.edu)

Signing the form below indicates your understanding of the consent form as well as your consent to participate in this study.

The extra copy of this signed and dated consent form is for you to keep.

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_