Coping-Infused Dialogue through Patient-Preferred Live Music: A Medical Music Therapy Protocol and Randomized Pilot Study for Hospitalized Organ Transplant Patients

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Background: Solid organ transplant patients often experience a variety of psychosocial stressors that can lead to distress and may hinder successful recovery. Using coping-infused dialogue (CID) through patient-preferred live music (PPLM) music therapy sessions may improve mood and decrease pain while also imparting psychoeducational knowledge concerning the identification of local and global problems and coping skills.

Objective: The purpose of this pilot study was to develop a coping-based medical music therapy protocol that combines coping-infused dialogue (CID) with patient-preferred live music (PPLM) and measure the effects of the resulting CID-PPLM protocol on mood (positive and negative affect) and pain in hospitalized transplant patients.

Methods: Our study used a pre-/posttest single-session wait-list control design. Participants (N = 25) were randomly assigned to experimental (CID-PPLM) or control (usual care) conditions. Participants in the CID-PPLM condition received a single 30-minute session that integrated stressor identification and knowledge of coping skills (CID) with patient-preferred live music (PPLM).

Results: Results indicated no between-group differences at pretest and significant correlations between pre- and posttest measures. Concerning posttest ANCOVA analyses, there were significant between-group differences in positive affect, negative affect, and pain, with experimental participants having more favorable posttest scores than control participants. Effect sizes were in the medium-to-large range for positive affect ($\eta^2 = .198$), negative affect ($\eta^2 = .422$), and pain ($\eta^2 = .303$).
Conclusions: CID through receptive PPLM may be an effective protocol for improving mood and decreasing pain in organ transplant recipients. MT interventions can be an important tool to develop rapport and enhance outcomes with patients. As greater engagement during interventions may have stronger treatment effects, we recommend future research examining patient engagement as a potential mediator of intervention effects, as well as the number of sessions required to maximize clinical outcomes.

Keywords: music therapy; organ transplant; coping; mood; randomized controlled trial

Literature Review

Organ failure is a common and potentially fatal medical complication. The Organ Transplantation and Procurement Network (OTPN, 2013) estimated that in 2013 there were 127,000 individuals on organ donation waiting lists in the United States. In 2011, there were approximately 28,000 organ transplant procedures, compared with 15,000 in 1990 (OTPN, 2011). Despite the dramatic increase in organ transplantation, approximately 7,000 individuals on transplant lists still die every year due to organ failure and/or inability to identify a suitable donor.

While successful solid organ transplantation can increase longevity and quality of life in patients, there can be elevated levels of psychosocial stress throughout the process (Langenbach, Schmeißer, & Köhle, 2004; Noma et al., 2008). For example, a fifth of heart and liver transplant recipients experience psychosocial stress three years after transplantation (Langenbach et al., 2004). Liver transplant recipients are more likely to be diagnosed with psychiatric disorders before and after transplantation than the general population (Noma et al., 2008). These psychiatric disorders may be influenced by past mood disorders, inability to maintain a healthy lifestyle, unstable family support, and suicidal ideation (Noma et al., 2008). Patients with renal failure can experience shame and guilt that negatively impact their mood (Taskintuna & Ozcurum, 2011). Therefore, as patients with higher subjective well-being and perceived social support are less likely to experience stress (Langenbach et al., 2004), it is essential to provide patients with
strategies that help promote health and wellness so they will be able to better cope with stressors.

One approach being used to help transplant patients manage psychosocial stressors in the medical setting is teaching patients to identify stressors and use effective coping strategies. Coping skills can be defined as cognitive and behavioral efforts to manage stressful events (Lazarus & Folkman, 1984). Coping is an important component of stress research (Lazarus, 2006; Semmer & Meier, 2009) because individuals who use effective coping can maintain or improve perceived well-being during stressful events (Lazarus & Folkman, 1984). While coping skills can be an important factor in mitigating the impact of stressful events during the transplant process, patients may have inadequate knowledge of coping skills to effectively manage stress. By increasing patients’ knowledge of and ability to use effective coping skills, medical professionals may improve outcomes by reducing psychosocial stressors and resultant negative affective states and outcomes in their patients.

Lopez-Navas et al. (2010) analyzed how 50 patients who were waiting for liver transplants coped with their disease. The researchers adapted and administered the Mental Adjustment to Cancer Scale and found that only 6% of the patients on the waiting list used healthy coping styles, while 94% adapted poorly to their diseases. Lopez-Navas et al. (2010) recommended that patients on a transplant waiting list receive appropriate psychological care that facilitates healthy coping, such as an increased fighting spirit and hopeful attitude. Moreover, previous researchers noted that higher subjective well-being was related to higher quality of life and reduced stress (Langenbach et al. 2004), further highlighting the relevance of adequate coping skills for transplant patients.

Music therapists often use music-based interventions to help patients cope in the medical setting. The Contextual Support Model of Music Therapy (CSM-MT) “is a developing theory that seeks to describe and investigate the mechanisms that are responsible for bringing about changes in self-regulatory behaviors during times of stress” (Robb, 2003, p. 103). Robb developed this conceptual model to explain how music can be used to create supportive environments that provide structure (i.e., predictability), autonomy support (i.e., opportunities for choice/control), and involvement (i.e., supportive relationships), which in turn encourages engagement and active forms of coping. It is proposed that
supportive environments can buffer the effects of stress and influence the way individuals cope with stressful experiences.

Using the CSM-MT as a guiding framework, we designed the CID-PPLM to provide structure and predictability through a standard, sequential session format and live, familiar music; autonomy support through patient selection of preferred music and patient-identified concerns/stressors; and relationship support through shared music experiences. Other medical music therapy researchers working with adult surgical patients have found beneficial results when using patient-preferred music to manage relaxation, pain, nausea, anxiety, stress, mood, and side effects of medication (Chaput-McGovern & Silverman, 2012; Crawford, Hogan, & Silverman, 2013). The aim of these studies was to create a supportive environment through music that would encourage patients to engage in session content, becoming active participants in their treatment. With the CID-PPLM, our intent was to encourage patients to become active in their treatment by disclosing stressors and identifying coping skills to improve self-regulation, manage stressors, and maintain health.

While researchers have published studies concerning stustu music and music therapy in medical settings, few have examined the benefits of music therapy interventions for solid organ transplant inpatients. Madson and Silverman (2010) measured the effects of a patient-preferred live music (PPLM) intervention to reduce anxiety, pain, and nausea, while improving relaxation in solid organ transplant donors and recipients. The researchers found significant post-intervention improvements in anxiety, pain, relaxation, and nausea. However, the authors did not include a control group, thereby limiting internal and external validity, with the authors recommending that subsequent studies use control groups and measures with established psychometrics.

Ghetti (2011) compared the effects of two music therapy interventions, Active Music Engagement (AME) and Emotional-Approach Coping combined with AME (EAC/AME), on affective states, pain, coping self-efficacy, satisfaction with hospitalization, and willingness to ambulate in kidney and liver transplant recipients post-transplant. Ghetti randomized participants (N = 29) to a treatment-as-usual group, AME group, or EAC/AME group. The AME patients participated in a 30-minute music-making session with the researcher. Ghetti encouraged participants to sing or play
along with instruments if they felt comfortable. Participants in the EAC/AME group took part in a similar intervention as participants in the AME group, but the researcher featured songs that were thematically linked to her perceptions of the participants’ emotional states. Participants were encouraged to discuss emotions and personal experiences that were triggered by lyrical or musical stimuli and participated in a therapist-facilitated discussion about coping skills. The EAC/AME intervention significantly increased positive affect, and both the AME and EAC/AME interventions decreased negative affect when compared to the control condition.

Crawford et al. (2013) measured the effects of a PPLM music therapy intervention on perception of stress, relaxation, mood, and side effects in solid organ transplant patients. The researchers randomly assigned the participants \( N = 38 \) to an experimental or wait-list control group. Participants had the choice of a patient-preferred music listening session performed on guitar by a music therapist or an interactive harmonica lesson that allowed them to keep a sterilized harmonica and CD to practice with accompanying music tracks. There were significant and positive between-group differences in relaxation, stress, and mood, with experimental participants having more positive scores than control participants. However, only 1 of the 37 participants elected to participate in a harmonica lesson rather than the receptive PPLM session. These results were congruent with previous research suggesting that some oncology patients (Chaput-McGovern & Silverman, 2012), younger patients, and patients with higher levels of stress may prefer receptive music therapy (Burns, Sledge, Fuller, Daggy, & Monahan, 2006). However, it is important to note that Crawford et al. (2013) did not offer a variety of active music-making interventions, so the option of taking a harmonica lesson was not compared to active experiences that may have been more inviting to participants.

Mood, defined as the interactive relationship between positive and negative affective states, can have effects on psychosocial stress and physiological outcomes (Langenbach et al., 2004). Music therapy researchers have measured the effects of music-based interventions on mood in several populations. Kenny and Faunce (2004) compared the effects of group singing to music listening while exercising on measures of mood, coping, and perceived pain in chronic pain patients. The group singing condition was as effective at improving mood as the exercising to music condition.
However, participants who did not attend the group also had increased mood despite not receiving treatment. Music therapy interventions have been used to effectively increase positive mood states in neurological (Davidson & Magee, 2002) and oncology (Waldon, 2001) patients, with Ghetti (2011) and Crawford et al. (2013) publishing the only randomized studies to date measuring the effects of music therapy interventions on mood in solid organ transplant patients. In both studies, the authors found positive mood outcomes.

Regardless of clinical setting or disease, coping is an essential aspect of dealing with stressful life events. In a randomized effectiveness study, Silverman (2011) examined the effects of a songwriting intervention on knowledge of coping skills and working alliance in acute psychiatric patients. Working alliance is frequently described as the degree of engagement between the therapist and consumer, and is consequential, as it is often positively related to beneficial change and therapeutic outcome. The researcher found that a songwriting intervention focused on developing knowledge of coping skills was as effective as a no-music psychoeducational session with a similar script. Ghetti (2011) approached coping through emotional awareness and expression with solid organ transplant patients.

There is a need for additional music therapy research with solid organ transplant patients. While researchers have published several studies wherein they measured the effects of PPLM, AME, and AME/EAC music therapy on solid organ transplant patients, there is a need for additional rigorous studies to establish benefits of specific interventions. While positive coping skills are important for psychosocial well-being and physiological outcomes, patients may not be comfortable discussing problems and coping skills with hospital staff. Music therapists can often develop rapport quickly through music-based interventions, which can then be used to facilitate meaningful discussion about the use of coping skills and strategies during treatment. However, the development and testing of standardized protocols to establish benefit is needed to inform and advance evidence-based practice.

The purpose of this study was to examine the efficacy of a coping-infused dialogue through patient-preferred live music (CID-PPLM) intervention on mood and pain in hospitalized transplant patients. The guiding research questions were as follows:
1. Compared with wait-list control patients, will CID-PPLM patients report greater positive affect and less negative affect immediately post-intervention?

2. Compared with wait-list control patients, will CID-PPLM patients report less pain immediately post-intervention?

**Method**

**Research Participants**

All participants in the study were inpatients on a solid organ transplant unit in a large Midwestern research hospital. The researchers’ affiliated university and hospital Institutional Review Board approved this study in advance of participant enrollment. Patients were eligible for study inclusion if they (a) could verbally communicate in English; (b) were inpatients for a transplant procedure, transplant-related infection, or a transplant rejection; and (c) were 18 years or older.

**Instrument**

The researchers used the Global Mood Scale (GMS) ([Denollet, 1993](#)) for the purposes of measuring mood, specifically positive and negative affect. The GMS is a set of 20 items designed to assess positive and negative affect by asking the patient to self-report “to what extent you have felt this way lately” ([Denollet, 1993](#), p. 121) on target mood states on a 4-point scale. Words such as *wearied, listless,* and *insecure* represented negative affect, while words such as *active, bright,* and *sociable* represented positive affect. The GMS had high reliability, Cronbach’s alpha = .90, in a sample of 478 men with coronary heart disease. While the GMS was designed to measure mood over a period of months, the authors of the present study adapted the language in the GMS to measure mood in a single session. For the purposes of the current single-session study, the language was modified from “indicate to what extent you have felt this way lately” to “indicate to what extent you feel this way right now.” Despite this change, Cronbach’s alpha measures ranged from .89 to .94 in pre- and posttest subscales of positive and negative affect in the adapted GMS used in the present study. The researchers also measured current pain levels on a 0–10 Likert-type scale. Consistent with hospital pain measures, 0
represented no pain and 10 represented unbearable pain on this Likert-type scale.

**Design and Procedure**

The researchers used a randomized controlled single-session wait-list design. The principal investigator (PI) recruited participants on the hospital unit twice a week over the course of nine weeks. After receiving a music therapy study referral from the nursing staff, the PI explained the study, and if the patients expressed interest, obtained informed consent. Participants were then randomly assigned via a computer program to either the CID-PPLM intervention or the standard-care control condition. Once randomized to a treatment condition, the PI administered the following participant self-report pretest measures: a demographic questionnaire, the GMS, and the pain scale. Measures were administered in either oral or written format, depending on the preference and ability of the participant. Following the 30-minute experimental or control condition session, participants completed posttest measures including the GMS and pain scale. Wait-list control condition participants received a 30-minute CID-PPLM intervention following the completion of the posttest.

**Development of the CID-PPLM**

The Coping-Infused Dialogue through Patient Preferred Live Music (CID-PPLM) protocol was developed for the purpose of integrating the discussion of coping skills within a single receptive music therapy session in an inpatient medical setting. Patients at medical hospitals often have little time to talk with physicians or nurses about psychosocial stressors they confront in- and outside the hospital. Based on Robb’s CSM-MT (2003), the CID-PPLM was designed to provide three forms of contextual support through music: (1) structure through familiar music and a predictable session structure that alternates between live music and dialogue; (2) autonomy support through patient selection of preferred music and topics for dialogue; and (3) relationship support (i.e., rapport) through shared music experiences. These forms of contextual support were intended to increase patient engagement and foster dialogue concerning local and global stressors and coping skills.
The CID-PPLM intervention was slightly modified throughout the study. For example, changes were made based on patient responses and an informal presentation and discussion with a graduate medical music therapy class. Changes and modifications were semantic for purposes of clarification and clinical training. For example, “surface dialogue” was originally named “dialogue 1.” From an overall clinical and functional perspective, however, the protocol largely remained consistent throughout the course of the study.

The protocol is divided into five brief dialogues and four opportunities for song choice, with the therapist alternating between dialogue and patient-preferred music. The music therapist facilitates discussion centered on the following dialogue types: surface dialogue, local stressors, global stressors, coping skills, and generalization of skills. Between each dialogue, the music therapist redirected the patient to the music and played a song chosen by the patient from a songbook of 160 songs featuring popular music from the years 1900–2013. All songs were sung live with/for the patient, using acoustic guitar accompaniment. After each song, the therapist made an observation of the patient’s response to the music and then transitioned to the next coping dialogue. The following outlines session content/progression:

1a. Surface dialogue was defined as conversation intended to develop a working alliance between the music therapist and the patient. During this dialogue, the music therapist would ask open-ended, music-based questions such as “What kind of music do you like to listen to?”

1b. Patient-preferred live music. The patient was then directed to choose a song he/she wanted to hear from the songbook.

2a. Local stressors/Coping skills dialogue. Local stressors were defined as stressors due to hospitalization, such as the inability to attend social events. During this dialogue, the music therapist would initiate conversations with questions like “What are some of the things that are stressful for you in the hospital?” This conversation would be followed by the identification of coping skills. Coping skills were defined as cognitive and behavioral efforts to manage stressful events (Lazarus & Folkman, 1984). A coping skill within the
hospital may be taking a walk around the unit. The therapist would engage the patient in the identification of potential local coping skills through questions like “Who can you call if you are feeling lonely or missing family?”

2b. Patient-preferred live music. The patient was then directed to choose a song he/she wanted to hear from the songbook, with the therapist introducing the concept of music listening as a positive coping strategy.

3a. Global stressors/Coping skills dialogue. Global stressors were defined as stressors due to everyday challenges of organ failure, such as fatigue. During this dialogue, the music therapist would initiate conversations with questions like “What are some of the things that are stressful for you at home or at work?” This conversation would be followed by the therapist engaging the patient in the identification of potential global coping skills through questions like “What kind of coping strategies have you found to be helpful at home or work?”

3b. Patient-preferred live music. The patient was then directed to choose a song he/she wanted to hear from the songbook.

4a. Generalization dialogue. The therapist would then work with the patient to identify skills and other positive experiences from the session, using questions like “What are some of the things we talked about today that you might try in the future when you are feeling stressed?”

4b. Patient-preferred live music. The patient was then directed to choose a song he/she wanted to hear from the songbook.

5. Closing dialogue. The therapist would then engage the patient in a brief dialogue to bring closure to the session and thank the patient for their study participation.

Usual Care

After the wait-list control condition participants completed self-report pretest measures, the music therapist explained that he was leaving for 30 minutes and would return to help participants complete posttest measures and administer the CID-PPLM
intervention. The music therapist did not give the participants any instructions or tasks to complete during the 30-minute usual care time. The PI did not collect any data on visitors or other medical procedures that wait-list control condition participants may have had during the usual care time.

Power Analyses

The researchers conducted a power analysis to determine adequate sample size using G*Power 3.1.3 (Faul, Erdfelder, Lang, & Buchner, 2007). Power analyses indicated at least eight participants per group were necessary in order to detect a moderate effect size (.25) when \( \alpha = .05 \) for a power of .80 using an ANCOVA with fixed effects.

Statistical Analyses

The researchers conducted chi-square tests to determine if there were between-group differences in gender, type of transplant received, and reason for hospitalization. The researchers conducted \( t \)-tests to determine if there were between-group differences in participants’ ages and length of hospitalization and to determine if there were between-group differences in pretest scores. Correlational analyses on pre- and posttest data indicated significant relationships, all \( p < .05 \). Levene’s Tests of Equality of Error Variances were not significant, \( p > .05 \). Therefore, a linear mixed model with posttest scores as the dependent measure, the treatment group as the fixed factor, and pretest scores as covariates was computed for all dependent measures using the ANCOVA function in SPSS Statistics Version 19.0.0. Effect sizes were interpreted according to Kotrlik, Williams, and Jabor (2011): small \( \leq .08 \); medium \( .09–.24 \); large \( \geq .25 \).

Results

Twenty-five of the 76 eligible patients participated in the study, resulting in an enrollment rate of 33%. While the PI did not formally collect reasons for declining participation in the study, typical reasons included a visit from a friend or relative, feeling too unwell to participate, feeling too tired to participate, and not being interested in the service. Figure 1 depicts participant flow through phases of the study.
There was no significant between-group difference in any demographic measures ($p > .05$). See Table 1 for frequency data by condition concerning sex, type of transplant received, and reason for hospitalization. For descriptive statistics concerning participants’ ages and length of hospitalization, see Table 2.

There was no significant between-group difference in pretest measures of positive affect, negative affect, and pain. The posttest ANCOVA with pretest as a covariate resulted indicated that there were significant between-group differences in posttest measures of positive affect, negative affect, and pain. Experimental participants had higher mean positive affect, lower negative affect, and less pain in posttest scores compared to the control participants. Effect sizes were in the medium-to-large range for positive affect ($\eta^2 = .198$), negative affect ($\eta^2 = .422$), and pain ($\eta^2 = .303$). Descriptive statistics are depicted in Table 3, and overall $F$-test for group differences is depicted in Table 4.
The purpose of this pilot study was to develop a medical music therapy protocol for coping-infused dialogue through patient-preferred live music, and to measure its efficacy to improve mood and decrease pain in solid organ transplant patients. The authors developed the Coping-Infused Dialogue through Patient-Preferred Live Music (CID-PPLM) clinical protocol for music therapists to use in various medical settings. The CID-PPLM was designed to facilitate practical discussions concerning local and global stressors and coping skills between patients and the music therapist. After a single music therapy session, there were significant between-group differences in positive affect, negative affect, and pain. Participants in the music therapy condition had positive outcomes compared

### Table 1
**Frequency Data by Condition**

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<thead>
<tr>
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<th>Experimental group</th>
<th>Control group</th>
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<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
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<tr>
<td>Female</td>
<td>7</td>
<td>9</td>
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<tr>
<td>Male</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Organ type</td>
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<tr>
<td>Liver</td>
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<td>4</td>
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<tr>
<td>Kidney</td>
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<td>4</td>
</tr>
<tr>
<td>Pancreas</td>
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<td>2</td>
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<tr>
<td>Auto islets</td>
<td>0</td>
<td>2</td>
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<tr>
<td>Multiple organs</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Reason for hospitalization</td>
<td></td>
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<tr>
<td>Transplant surgery</td>
<td>5</td>
<td>7</td>
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<tr>
<td>Off service</td>
<td>7</td>
<td>6</td>
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All $p > .05$

### Table 2
**Descriptive Statistics of Patients’ Ages and Length of Hospitalization**

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<tr>
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<th>Experimental group</th>
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<tbody>
<tr>
<td>Age</td>
<td>51.92 (7.29)</td>
<td>50.38 (10.72)</td>
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<tr>
<td>Days in hospital</td>
<td>7.33 (6.20)</td>
<td>6.69 (2.78)</td>
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All $p > .05$

**Discussion**

The purpose of this pilot study was to develop a medical music therapy protocol for coping-infused dialogue through patient-preferred live music, and to measure its efficacy to improve mood and decrease pain in solid organ transplant patients. The authors developed the Coping-Infused Dialogue through Patient-Preferred Live Music (CID-PPLM) clinical protocol for music therapists to use in various medical settings. The CID-PPLM was designed to facilitate practical discussions concerning local and global stressors and coping skills between patients and the music therapist. After a single music therapy session, there were significant between-group differences in positive affect, negative affect, and pain. Participants in the music therapy condition had positive outcomes compared
to the wait-list control condition. It is important to note that effect sizes were large for negative affect and pain, with a medium effect size for positive affect supporting further examination of the CID-PPLM through a larger controlled trial.

The positive results of this study are congruent with previous research with solid organ transplant patients indicating that music therapy interventions can improve mood (Crawford et al., 2013; Ghetti, 2011) and decrease pain (Madson & Silverman, 2010). A strength of the current study was the use of a randomized controlled design and established psychometric instruments to measure patient outcomes.

It is important to note several limitations of the current study. First, in this initial pilot study, the researchers did not measure coping knowledge, coping self-efficacy, or coping behaviors, and these represent potential mediators (coping knowledge; self-efficacy) and additional outcomes (coping behavior) that we recommend measuring in subsequent studies. Second, although protocol changes were semantic in nature for purposes of communication

<table>
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<th>Table 3</th>
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<tr>
<td><strong>Descriptive Statistics</strong></td>
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<td>Dependent measure</td>
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<td>Positive affect</td>
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<td>Negative affect</td>
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<tr>
<td>Pain</td>
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All pretest between group differences \( p > .05 \)

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<th>Table 4</th>
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<td><strong>Posttest ANCOVA by Treatment Group with Pretest as a Covariate Results</strong></td>
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<td></td>
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<tr>
<td>Dependent measure</td>
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<td>Positive affect</td>
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<td>Negative affect</td>
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<td>Pain</td>
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and academic and clinical training, the researchers slightly modified the CID-PPLM over the course of the study. These protocol changes may have affected patient outcomes over time, representing a potential limitation of the study. A final limitation was the multiple roles of the investigators. Future researchers might employ research assistants to collect data to avoid having a dual role of researcher and clinician as well as collecting detailed reasons for study refusal.

We recommend additional evaluation of the CID-PPLM that includes (1) qualitative interview data; (2) a larger efficacy trial; and (3) treatment dismantling. Qualitative interviews would illuminate from the patient’s perspective what aspects of the CID-PPLM were most meaningful and/or beneficial, helping identify potential mediators and/or unanticipated outcomes. Findings also support progression to a larger efficacy trial, replicating the present study with a larger sample and measuring knowledge of coping skills and coping self-efficacy. As the 33% enrollment rate was low, future researchers may consider educating staff about the study, as educated staff may positively influence patients’ decisions to accept music therapy. We also recommend collecting specific reasons for refusing study participation, as these could be used in future investigations to potentially increase enrollment rates. Additionally, through treatment dismantling, researchers could divide participants into multiple treatment groups such as PPLM only, CID only, CID-PPLM, and usual care to determine essential components of the intervention. Finally, as greater engagement during interventions may have stronger treatment effects, future researchers might examine patient engagement as a potential mediator of intervention effects, as well as the number of sessions required to maximize clinical outcomes.

The purpose of this study was to create a medical music therapy protocol for coping-infused dialogue through PPLM and measure its efficacy at improving mood and decreasing pain in solid organ transplant patients. Initial results are positive and indicate that the CID-PPLM was effective in improving positive affect and decreasing negative affect and pain. However, researchers and clinicians should be cautious in generalizing results, due to the relatively small sample size. Anecdotally, the researchers found the CID-PPLM to be a pragmatic and effective protocol for facilitating coping dialogue with solid organ transplant patients. While the
investigation supports the use of music therapy in a solid organ transplant unit, future research is needed to replicate study findings and demonstrate efficacy through a larger randomized controlled trial study.

References


