

Full-Length Article

Applications of Clinical Improvisation and Aesthetic Music Therapy in Medical Settings: An Analysis of Debussy's 'L'isle joyeuse'

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Abstract

The application and use of clinical improvisation is an important technique in medical music therapy. Through the analysis of Debussy's 'L'isle joyeuse' this study aims to provide the beginnings of a new way of working within a music-centered philosophy for music therapists in medical settings. The piece is divided into eight sub-sections, offering practical suggestions for how the music can be adapted and used for specific clinical outcomes. Each analysis may be used separately to create smaller improvisations or collectively in varying combinations, to create larger improvisations. Throughout the study connections are made between musical process and clinical outcome. Due to the transparent and ever-changing environment of patient's experiences in hospital settings, the potential for the free-flowing form of improvisation is emphasized as an important clinical technique. This paper offers a contemporary and *musically scientific* view of clinical improvisation in medical settings.

Keywords: *Music-Centered, Clinical Improvisation, Music Analysis, Clinical Musicianship*

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The linking of music medicine and music-centered music therapy [1] is an important contribution to the development of contemporary clinical practice [2]. Music medicine is primarily concerned with evidence-based practice [3] which fosters improved understanding of outcome effectiveness and precise aspects of music therapy contributing to such effectiveness [4], whereas music-centered music therapy is focused on musical content and process [5]. In music medicine clinical interventions are facilitated with both live and recorded music, looking to the effects of music and sound and their effects on such parameters as stress and pain.⁶ The focus is on music-based interventions applied within a therapeutic relationship [7]. In music-centered music therapy the creative and aesthetic content of creating live music is paramount in forming a therapeutic alliance that in turn affects the outcome of therapy [8].

The field of medical music psychotherapy has strong foundations in the work of Dileo [9] and continues to play an important role in the advancement of music and medicine. It is has been demonstrated that music interventions reduce stress in patients with chronic pain or tinnitus, children with migraines [4], as well as reducing other forms of stress [9-12] and increase relaxation [13]. In the realm of psychotherapeutic support, music is used for expression, reflection, and catharsis as well as cultural, spiritual and social issues all center to a patient's process [14].

Research in medical music therapy has identified the need to "define specific characteristics of the music as well as types of music therapy approaches required for specific therapeutic purposes" [15]. This requires attention to identifying specific musical elements, instruments and performance methods. It is how music is used rather than the phenomena itself that is the most misunderstood between disciplines. In music-centered practice the essential building blocks of tones, rhythmic cells, harmonic progressions, textures and form are all considered with precision [5]. The skills and understanding of clinical musicianship, music analysis and musicology in this context are paramount. In music medicine it is the science of outcome and the non-musical parameters for specific physical symptoms that is the foundation for its knowledge base [4,16]. Music medicine is based on the physical and emotional well-being of the client established from specific non-musical criteria that are objective, measurable sources of information that can be communicated and documented with respect to the value and benefit of interventions [17]. In music-centered

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International Association for Music & Medicine (IAMM).

music therapy the premise is the same, the difference being that the musical qualities of the intervention itself guides the therapist's knowledge and intuition for desired clinical outcomes [18]. From a musical understanding, balanced with the physical and emotional needs of the client, the therapist is able to facilitate the direction of therapy. This in turn affects the outcome and facilitation of clinical aims.

Music therapists facilitate musical responses dependent on patient's individual needs. What music does a therapist offer that will address the often complex medical and emotional needs of the patient? Music medicine supports the notion that preferred music is an important indicator for reaching specific aims and objectives. "It is well established in music therapy research literature that the most effective music to use with clients is the music style and genre that is familiar and preferred by the client" [19]. This is mostly achieved through either the use of songs, as a part of active music making, or through pre-recorded music for either the facilitation of imagery (GIM) or relaxation.

Preferred music is an important consideration in assessing a patient's needs. The therapist must be careful when offering music that a patient has had past associations with. For example, if a patient has had past positive memories with a song, it does not mean that he/she will have the same sentiments when listening in different life contexts. Positive song themes from a person's past may be sources of sorrow [20] when presented in the present. Preferred music can enhance patients' purpose and self-worth by stimulating creative participation alongside providing several benefits, including affording patients: a sense of achievement; greater control in their environment, a physically and mentally stimulating experience; and heightening their awareness and exploration of emotional needs [21]. The effects of preferred music on pain perception have demonstrated that participants' chosen music was found to increase tolerance and perceived control ratings in both males and females, and that preferred music was both distracting and provided a positive affective impact on the pain experience [22]. When undergoing radiation therapy, patients who listened to self-selected music reported lower anxiety and treatment-related distress [23]. It has also been shown when a patient has minimal experience with relaxation or imagery that preferred music is of benefit [24].

It is the premise of this paper and the following analyses, that non-preferred music could have an equally important role in facilitating desired clinical outcome, especially when advocating the use of improvisation. Every therapeutic encounter and musical response by the patient will be different. What may be musically significant to one patient may mean nothing to another. With this in mind the therapist must provide a delicately balanced panorama of musical idioms and styles that will address the complex musical and non-musical issues of each individual patient. The equilibrium between offering preferred and non-preferred music is a complex one that should be treated carefully. It is the authors' belief that the inspiration of hearing new musical textures can

be equal to music that has past associations. The following analysis can serve both as a model for therapist's clinical dissection of other compositions known to the patient, or just as importantly in providing new and unknown musical textures that will address specific medical and expressive aims.

Background

Debussy's music (1862-1918) is full of imagery and color painting [25,26]. His free-flowing yet highly articulated aesthetic form can be used to great effect in therapy [27,28]. '*L'isle joyeus*' is based on a painting by Antoine Watteau (1684-1721) '*L'embarquement pour Cythère*' and was chosen for analysis due its clarity of form, expressionistic content and emotional intensity. Learning how to create his subtle yet exquisite musical landscapes can be positive for many clinical scenarios.

Pre-composed music is used extensively for patient-preferred music [29-32]. Extracting clinical-musical resources from pre-composed music to influence clinical improvisations is an altogether different technique [34]. Aesthetic Music Therapy (AeMT) [5,8,34-36] as a newly defined music-centered model developed by Lee, has taken its core from the comparative microanalysis of pre-composed music, and the implications of these results for the developing discipline of clinical improvisation. By combining musicological and clinical outcomes equally a critical balance can be found, one that defines a musically empirical standard that could provide innovative ways of considering the process and outcome of music therapy practice.

AeMT's documented case studies [5,36] bears testament to the use of Western composer's styles and the direct adaptation of their pre-composed music to influence the structural content of clinical improvisations. Work's such as Mozart's Requiem, KV626, Beethoven's String Quartet Op.132, Britten's opera 'Peter Grimes' Op. 33, and Bartok's String Quartet No IV, have all provided the musical backbone for clinical music-making. Further styles influenced from popular (blues and jazz) and world music [30] (Indian Ragas and Argentinean Tangos) have added to the richness of styles available to the therapist. By distilling and analyzing the musical infrastructures of movements and critical passages, the therapist is able to expand the landscape of musical responses available for their developing clinical musicianship. Specific works can be bought into sessions as requested by the patient, or can be used in direct response to the therapist's understanding of the aims and objectives of developing work. This paper is based on the research and principles of AeMT.

Clinical Application

Edith was a 65-year-old female dying of Stage IV pancreatic cancer. When she was diagnosed, her cancer was advanced and had already metastasized. This meant that surgery was no longer a curative treatment option. The malignancy was apparently resistant to both chemotherapy and radiation

therapy as well. Edith had lost considerable weight the past 6 months and had very poor appetite. She was lethargic and sleepy most of the day. She experienced nausea, and considerable pain in the abdomen and lower back. She required assistance with bathing, using the toilet, mobility, and at times, feeding due to weakness. The therapist met her on the palliative care unit of a large metropolitan hospital. She expressed her interest in using music for relaxation and reminiscence. Edith’s husband had died suddenly of a heart attack two years prior. She expressed feelings of sadness because she never had a chance to tell him how much she loved him and to say her final goodbye. Edith was hopeful that in her death she would be reunited with him. She suffered from high levels of anxiety and low mood. In the first three sessions the therapist implemented music for relaxation, and preferred songs for reminiscence. Music for relaxation was implemented to further Edith’s feelings of comfort while decreasing pain perception and also to meet the client in her physical state of reduced energy and lethargy. During the initial assessment session, Edith expressed interest in using music and reminiscence as a therapeutic technique. Edith was able to use music for relaxation, but still expressed anxiety about delving into memories that concerned her husband. Despite this, she still chose to reminisce. In the fourth session, the therapist decided to incorporate Debussy’s ‘*L’isle joyeuse*’ as a means to inspire images of her memorable trip to Paris. This piece was selected because of its clean musical lines and emotional intensity with the hope that it would provide a warm space to help stimulate imagery. By distilling sections of the piece and using them as a basis for a developing improvisation, the music was able to meet the patient’s needs. As the music began, Edith described a memory of her and her husband. “Jonathan and I travelled to the beautiful countryside of Paris for our 25th anniversary right before he died. This music reminds me of the trip”. She went on to describe many picturesque views with vivid details of colour and feelings she experienced. After the piece ended the therapist used the images and feelings as a springboard for discussion that were subsequently transcribed. This work led to increased feelings of comfort and reduced the anxiety she felt. Using a Likert scale 0-5 with 0 being no anxiety to 5 being extreme anxiety, Edith’s anxiety went from 4 pre-session to 1 post-session.

Analytic Criteria

The following analyses have been dissected to provide musical themes and forms that can be used for creating clinical improvisations in medical settings. This one example can serve as a template for other clinical analyses dependent on the needs of the patient. The exercises are mainly focused on keyboard, but can be also adapted for guitar¹ and single-line

¹Due to the nature of the piece, guitar tablature has not been included. Therapists who use guitar as their main instrument are encouraged to

orchestral instruments. The use of voice, either with words or vocalize, is encouraged throughout. The sub-sections can be used either in isolation or combined to provide diverse musical responses for various client groups. It is suggested, if possible, that the original score be studied before implementing the analyses. The following stages form the basis for the results:

1. Musical analysis – description of musical content
2. Practical application – exercises for the development of clinical musicianship skills
3. Clinical treatment – specific receptive and active techniques²

The composition is based on the following modes and scales:

Example 1 –Whole-tone Scale



Example 2 –Lydian Mode



Example 3 –Diatonic Scale



Analysis 1 (bars 1–6)

The piece opens with a long C# trill, followed by a fast melodic passage suggesting the whole-tone scale. The emphasis on trills continues throughout this section with the melody evoking an illusion to pan-pipes [37].

Bars 1-6 can be distilled to provide three sub themes *A*, *B* and *C* that can be used as motives for creating space and openness. Theme *A* contains a descending chromatic scale with chords based from the whole-tone scale.

Example 4

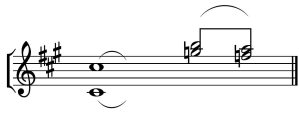


explore ways of transcribing the analyses for their specific individual clinical work.

²The suggestions offered come from the author’s experiences of this piece in both clinical and educative settings. It is hoped that other varied adaptations will become evident as therapists use the piece for different clinical situations.

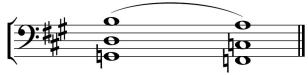
Play different groupings with the descending melody and chords to create sequences that are open and suspended. Improvise extended trills followed by faster phrases to create the opening mood of the piece. *B* is a combination of a bell like tone on C# with two intervals of a major third.

Example 5



Practice *A* and *B* separately and then together creating a musically transparent experience. Two original chords in the bass *C*—not included in the score—are offered to balance to the overall texture of this section.

Example 6



Themes *A*, *B*, and *C* can be used in isolation to create short improvisations, or combined to create a musical forms as the basis for longer and more developed experiences. The crystal-like ungrounded essence of this sub-section should be chosen for specific clinical situations that require emotional clarity and simplicity of form.

Clinical Applications

Receptive

- Relaxation – This analysis can be used to create space for relaxation, providing a platform for openness and stillness. It could help improve mood, reduce anxiety for medical and surgical patients, while also enhancing comfort and relaxation [38-41].
- Inhalation and exhalation – Use the C# trill to focus on inhaling, and the following faster moving melody on exhaling. This analysis can be used for breath management exercises paired with choral singing and speech for patients with Chronic Obstructive Pulmonary Disease (COPD) [42].

Active

- Music and Movement – The trill passages can assist small hand or foot movements. Also to help maintain muscle strength or rehabilitate affected areas of motor functioning, making repetitive tasks easier, more stimulating and improving motivation [43-46].
- Improvisation – C# tone can be offered to a client, which will then become the focus for an ongoing dialogue [47].

Analysis 2 (bars 7–13)

The tonic key of A Major is now established. Two melodic phrases *A1* and *A2* are introduced, balanced between the Lydian mode and whole-tone scale. These exotic phrases can be used as improvisational nuclei for therapists who play single-line orchestral instruments, varied world instruments or voice.

Example 7 – A1



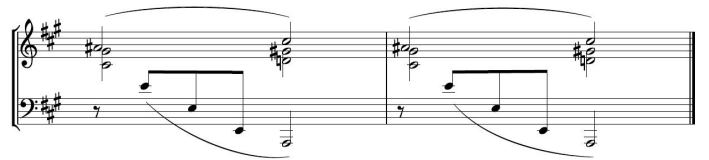
Example 8 – A2



These phrases should be played with flexibility and freedom of melodic line.

B, (bars 12 and 13) acts as a musical pause and can be used as a link back into *A*, (bars 7–11).

Example 9



Clinical Applications

Receptive

- GIM combined with relaxation to encourage psychological, physical and mental relaxation. GIM reduces psychological distress that is known to suppress human immune and endocrine functions [48].

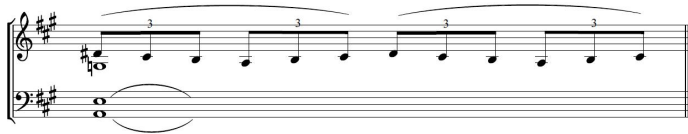
Active

- Music and Movement [49]– moving head in circles, or make sweeping motions with hands or legs. Melodic fluidity over tonic chord for promotion of fine motor control movements. For paraplegic and/or quadriplegic patients in rehabilitation to help experience aspects of their personality that were previously functioning and help reintegrate their self and body images [50].
- Improvisation – to decrease client's sense of isolation, while promoting space and relaxation [51].

Analysis 3 (bars 19–27)

This section includes a Dominant 7th major chord over which minimalist triplet figures are played.

Example 10 – A1



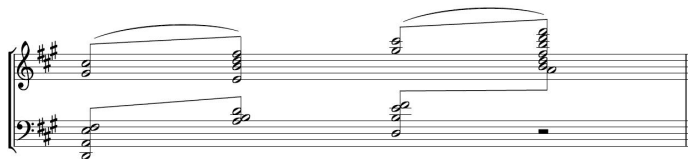
This passage provides a duality of expression inferring a balance between a diatonic centre and the whole-tone. A sub motive of 3rds creates balance in the musical form. Play slowly and carefully over the tonic. Explore in different registers and at different tempo.

Example 11 – A2



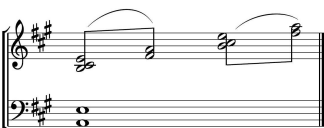
This example includes ascending chords on the sub-dominant that includes major 2nds. Explore these chords with different instrumental combinations and voice.

Example 12 – B1



The tonic key is stated in the bass with an open 5th and simpler more transparent intervals in the treble.

Example 13 – B2



Use themes *A1*, *A2*, *B1*, & *B2* individually and in combination to create divergent musical figures for improvised musical experiences.

Clinical Applications

Receptive

- Relaxation – Progressive muscle relaxation, focusing on the musical tension of *A1–A2*, and release *B1–B2*. Listening to

an improvised realization of the analysis could positively affect neurophysiological and emotional responses [52,53].

Active

- Improvisation – For use with non-pitched instruments or a single tone (*A*). To create movement, *A1* balanced with rising 3rds *A2*, leading to a more sustained musical dialogue, *B1* and *B2*.

Analysis 4 (bars 36–51)

This luminous section can be used to great effect in many clinical situations. The beauty of sounds if placed precisely and clinically can produce effective results. Play the passage slowly from the original score. Place each tone carefully to create the incandescent qualities of the passage. Emphasize the rhythmic content of duple vs. triple meter.

The three sets of essential tones can be used for the client to be an essential part of the music. The movement from a perfect 4th to major 3rd and minor 3rd will create unexpected musical experiences for the client.

Example 14 – Essential Tones

Bars 36–39



The suggested grounding chords add textural and harmonic balance to the higher pitched qualities of the score. The chords have been prepared with open intervals to add warmth and direction. The harmonic core of B major, root position to G major, first inversion and finally B flat, root position combined with the previous essential tones can add clarity to an ongoing musical dialogue between therapist and client.

Example 15 – Grounding Chords

Bars 36–39



Play these passages in varying combinations to create different and varied musical experiences.

Receptive

- Guided Imagery – Create open, expansive sounds. The richness of the suggested grounding chords can be used for relaxation and imagery [54].

Active

- Improvisation – The essential tones used individually to create a bell piece. Un-tuned percussion can add to the emotional/musical quality of the passage [55]. The Lydian

mode modulating to B flat major can be used to create clarity and attention.

Analysis 5 (bars 67–98)

This slower middle section is pianistic and grounded in the tonic. The left hand with its rhythmic divisions of five against three, suggests music that is open and improvised. The right hand lyrical chords provide warmth that is reminiscent of Chopin and Rachmaninoff. The melody has 4 sections: *a*, step-wise and ascending, *b*, moving downward back to the tonic, *c* moves between tones A and B before *d*, which again creates leaps in the melody.

Example 16



Analyzing this carefully constructed melody can equip the therapist with clinical/musical tools to encourage and develop melodic expression for the client. The balance between step-wise movements and leaps can provide an emotionally impactful experience. Often clients when improvising either with voice or on tuned instruments will oscillate around tones in close proximity. By improvising melodic arches clients can be encouraged to take musical/creative steps that include broader and more emotionally open musical phrases.

Receptive

- Relaxation – This analysis is effective for relaxation, deep breathing and emotional grounding [56,57].

Active

- Improvisation – Legato playing, using instruments that have broader qualities. For vocal development [58], breathe control and singing. To decrease isolation through improvised dialogue [51].

Analysis 6 (bars 99–114)

This section, now in the dominant, highlights the musical authority of the interval of a 5th in contrary motion. A should be played clearly and with a sense of detachment (piano no pedal).

Example 17



B, in comparison, is a section that is broad and legato. Consider this extended phrase as a mini cadenza free from any defined rhythmic structure.

Example 18



The return to the staccato *A* should be similar to the opening but in lower registers. The final chord can either return to the tonic (1) or modulate to G (2).

Example 19



Receptive

- Relaxation – For breathing patterns, played slowly and openly. Contrast each sections between slow detached playing, *A*, and longer legato lines *B*.

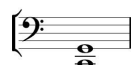
Active

- Improvisation – For use with interventions that require clarity of dialogue. Tuned instruments on E (*A*) and G # (*B*). The musical elements in this section can be used as a means to mirror a traditional therapeutic dialogue [59]. In *Paraverbal Therapy*, improvisation can express the communicative needs of children and can be a means to facilitate verbal dialogue. This music could also help patients overcome an emotional barrier through verbal expression [60].

Analysis 7 (bars 145–159)

This sub-section is analyzed in six cells that can be isolated and combined in different combinations. The music is constantly moving. Each cell should be practiced separately and then combined to produce a part-improvisation or one single improvisation.

Example 20 – Cell 1 – Rolling bass figure to be played freely and out of tempo



Example 21 – Cell 2 – Step-wise melody



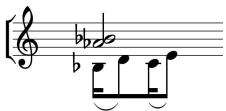
Example 22 – Cell 3 – Repeating minimalist phrases



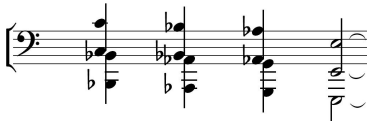
Example 23 – Cell 4 – Two-part cells in 3rds



Example 24 – Cell 5 – 2nds and 3rds



Example 25 – Cell 6 – Descending octave and 2nds



Receptive

- Relaxation – The cells can be used as luminous responses to inactive clinical situations such as breathing patterns. The quality and emotional intent of this sub-section should be used carefully and with clinical/musical intent.

Active

- Improvisation – The cells presented can be used for different instrumental combinations to create an improvisation based on themes that provide different musical responses. This section emphasizes a balance between freedom and exploration of expression [61].

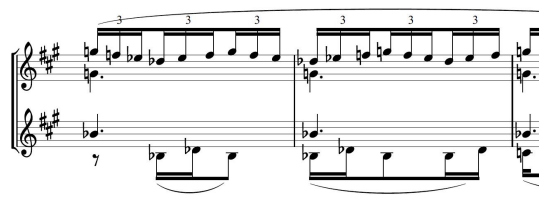
Analysis 8 (bars 200–220)

This passage introduces a new configuration. It has three sub-sections:

Example 26 – Sub-section A – March-like figure in chords



Example 27 – Sub-section B – Moving minimalist figure



Example 28 – Sub-section C – Bell-tone



Explore the two different moods of *A* and *B*, followed by the bridge passage *C* to create a distinctive improvisation that balances the different styles.

Receptive

- Listening – The distinctly different styles can be used to help alleviate postoperative pain [62], reduce anxiety, improve pain management, and improve mood. Gutsell [63] found that a single session incorporating therapist-guided autogenic relationship and live music was effective in lowering pain in palliative care patients [39].

Active

- Music and Movement – Clients who become active and who need energy in their responses. Active music making may contribute to increased energy [64]. Improvisation – Possible implications for clients with traumatic brain injury to increase expression and help re-establish relationships [65].

Conclusion

This article proposes a method of analysis, linking music-centered practice and music therapy in medical settings. The richness and artistry of great composers’ music can become essential tools in facilitating specific medical interventions. If we believe that the creative quality of music should be equal to the clinical nature of non-musical aims, then studies such as these should be seen as essential for developing contemporary practice. Debussy’s ‘*L’isle joyeuse*,’ was chosen because of its clarity of compositional design, emotional authenticity, and impressionistic textures. By dissecting the structure of the piece into sub-sections, musical and clinical form become allies. Using the sections either separately or in different combinations, Debussy’s style becomes available for extending the therapist’s musical palette. In this context the

scientific structure of music is directly applied to the scientific organization of medicine and clinical outcome.

It is not the intention of this investigation to recommend a standardized analytic model but rather to provide the beginnings of a potential new area of research. The inventive character of music is full of inspirations and emotional truths. Music can be counted and considered mathematical, but it is also equally beyond pragmatic understanding. The balance then between empirical veracity and creative freedom becomes ever more complex, especially when connected to the complexities of the therapeutic process and relationship. Through the comparative research of musical analysis and clinical outcome it is possible to prescribe musical elements that could have implications for medical procedures. This being said it is the belief of the authors that music in music therapy should never be prescriptive, and that each musical intervention should have varied responses and outcomes depending on the emotional and physical needs of each individual patient.

Music medicine is now in a period of growth. Research designs that synthesize theories of music and medicine are long overdue and an essential step in finding a more professionally balanced practice. Music itself is what drives music therapy. By discovering protocols that consider equally the art and science of practice, a new era of research could emerge—one based on criteria that balances equally theories of music and medicine.

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