

Full-Length Article

**Optimizing Music in Complex Rehabilitation and Continuing Care:
A Community Site Facility Study (Part 2 of 3)**Michelle Nelson¹, Bev Foster^{2,3}, Sarah Pearson², Aimee Berends², Jennifer Ridgway⁴, Renee Lyons¹, Lee Bartel³¹Lunenfeld-Tanenbaum Research Institute, Sinai Health System, Canada.²Room 217 Foundation, Canada.³Music and Health Research Collaboratory, University of Toronto, Canada.⁴Bridgepoint Active Healthcare, Canada.**Abstract**

This article is the second in a three-part series on the theory and applications of a music care framework. Music is increasingly being recognized in health care as an effective psychosocial and rehabilitative intervention. Currently, there is little standardization as to how music may best be integrated into health care settings. It is the absence of standardization that prompted the authors to identify new possibilities for integrating music in health care. The purpose of this study was to explore how music could be optimized in complex rehabilitation and continuing care environments, using one such facility in Ontario, Canada, as an example. Data collection focused on the feasibility of incorporating music in care delivery by surveying stakeholders regarding the potential for music in the facility, and collecting specific ideas for the integration of music within the space. Participants' perspectives were collected using 4 methods: design charrettes, a musical café, an electronic questionnaire and 'idea boxes'. Data revealed participants' perceived values and assumptions about the importance of music in care. The researchers utilized a conceptual framework of music care, which was designed to help clarify various dimensions of music in care, assist in the mapping of existing music care initiatives, and identify opportunities to optimize the use of music in care. The study concluded with site specific recommendations, which may be applicable to other health care settings.

Keywords: *music care, patient-centered care, complex continuing care, music optimization, ten domains of music care.*

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Introduction

With aging populations, and advances in medicine and public health, people are living longer but often with increasing chronic health conditions [2]. A growing portion of the global population has multiple chronic conditions, which requires new thinking and new approaches to clinical care and health systems reform [3]. Supporting patients with multiple chronic conditions, and their complex care needs has been identified as a system wide priority [4]. Individuals with complex care needs occupy one of the heaviest user groups within healthcare systems, but are poorly understood [5].

Music is increasingly being used and accepted as a psychosocial intervention in health care settings; supporting improved quality of life [6-9] and as a treatment in rehabilitation [10-12]. There is a lack of specificity and standardization for the integration of music into both care goals, and the physical care setting to produce the best

quality of care. Without a framework to inform musical interventions and solutions for the use of music in complex rehabilitation and continuing care, the benefits of using music in health care setting to enhance quality of life may not be fully reached.

'Music care', is an emerging approach which recognizes that musical elements such as tempo, rhythmic patterns, melodic shape and range, timbre, in themselves have healing capacities [13-15]. Music care is not a specific practice, rather a paradigm within which music is understood to enhance quality of life and play an integral role in care and care settings; contributing towards overall person-centered care [16]. Music care is characterized by the informed and intentional implementation and integration of music throughout aspects of health care delivery.

'Music care', is comprised of 10 domains [17], which provide a framework for various ways music might be incorporated into health care settings [18]. Music care is a highly individualized approach, recognizing that music impacts people in unique ways that relate to their lived experience, memory, family, culture, physiology, and mood of the day. In addition to benefit, music however has the potential to do harm [19]. Therefore, it is important when assessing the feasibility for music care within a clinical

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setting to gather input from a wide range of stakeholders, ensuring depth and breadth of perspectives on potential programs.

This project was designed to address two objectives: i) assess the feasibility of incorporating music care within a complex rehabilitation and continuing care setting, with corresponding recommendations regarding implementation; and ii) support the development and validation of the music care framework.

Methods

Setting and Design

The feasibility study took place within a mid-sized complex rehabilitation and continuing care hospital in Toronto, Canada, recognized as a leader in care delivery and research focused on complex patient populations. The health care organization consists of inpatient and outpatient clinical programs (approximately 400 beds), a primary health care clinic, and a research institute focused on patient and care complexity.

Music had been incorporated into the hospital services typically through recreation therapy or spiritual care programs, which provided opportunities for active and passive music participation. The organization had built a new hospital facility in 2013, and was interested in strategies to further optimize the use of music that would animate the physical environment, supporting patient outcomes.

Data Collection

Ethics approval was obtained from the Hospital Ethics Review Board prior to data collection. Four data collection methods were utilized; 1. design charrettes, 2. a musical café, 3. a survey of staff members, and 4. suggestions captured through ‘idea boxes’.

1. A design charrette is an intensive planning session where citizens, designers and others collaborate on a shared vision for development. This approach provides a forum for ideas, providing the advantage of immediate feedback. The objective of the charrette for this project was to use the expertise of stakeholders such as architects, hospital personnel, musicians, and music medicine experts by having them walk through the space, generate ideas and provide an opportunity for feedback. Participants were given a tour of the facility, stopping in key locations for structured discussions asking: How can music and/or sound be utilized in this space? Touring the physical space was essential for

gathering location-specific ideas, and connecting external participants to the clinical context. Following each discussion, time was allotted for experts to document their ideas, which were collected by project team members. Each charrette took approximately 90 minutes.

2. Cafés’ provided an opportunity for informal discussions between patients, caregivers, musicians and the project team. The primary objective of this approach was to invite patients and family members to participate in the feasibility assessment. The 90 minute musical café experience included a performance by a well known musician and small group discussions (four 8-person tables) facilitated and scribed by members of the project team. The key question in this patient café was “Imagine the possibilities of music in this hospital. How can we advance the use of music at <in this hospital> in the future?”
3. The electronic survey was distributed through the staff weekly newsletter. The survey posed questions regarding i) staff members’ opinions about the role of music with the hospital, ii) specific ideas for incorporating music into the facility, and iii) opinions regarding physical locations where music could be beneficial.
4. *Idea boxes* – Thirteen ‘idea boxes’ were placed at the team stations on each clinical unit and other common areas throughout the hospital. Each box contained a pen and small note pads that any staff member, volunteer, patient or visitor could use to submit i) suggestions and opinions regarding the role of music with the hospital, ii) specific ideas for incorporating music into the facility, and iii) physical locations where music could be beneficial.

Data Analysis

As this was a feasibility assessment designed to generate recommendations, detailed qualitative analysis was not conducted. Two members of the team (AB and SP) did an initial review of the data, collating all of the music optimization ideas presented by participants. These team members first identified key value statements either explicitly stated or implied in the collected ideas; values which were not tied to any specific optimization idea, but served as the context for participants’ ideas and suggestions. These statements included implications such as “music is meaningful” and “person-centered care matters.” The music optimization ideas were then mapped against the music care domains. A set of recommendations was generated from the optimization ideas and constitute the primary project results.

Results and Recommendations

One hundred and twenty three individuals participated in one of the four data collection activities (Figure 1), resulting in 564 suggestions, comments and ideas regarding music implementation within complex rehabilitation and continuing care (Figure 2). In addition to the results related to specific elements of music care, essential organizational values required for music optimization were identified by participants and have been summarized.

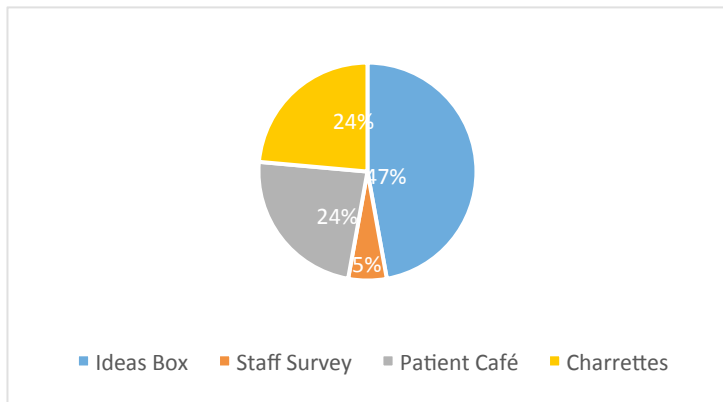


Figure 1. Participants per data collection strategy

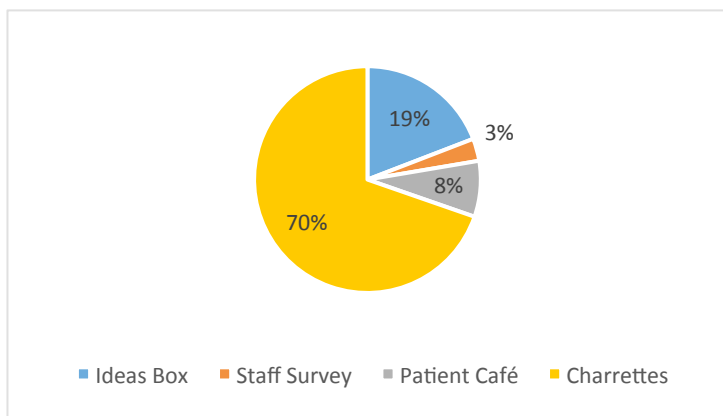


Figure 2. Ideas collected per data collection strategy

Design charrettes – 29 individuals attended one of two design charrettes held on consecutive evenings. Outside experts included architects, artists, designers, professional musicians, composers, music educators, music stakeholders from other local hospitals, as well as patients’ family members. Hospital physicians, staff and volunteers also attended the charrettes. The design charrette participants provided 393 music optimization ideas, comments or suggestions.

Musical café –29 patients participated in the 90-minute afternoon focus group, sharing their experiences and opinions regarding for the use of music in the facility.

Participants came from eleven different units. Forty five discrete contributions were noted.

Electronic questionnaire – seven staff responded to a survey delivered through the facility’s newsletter providing eighteen ideas for music care implementation.

Ideas box – 58 submissions were received via the 13 idea boxes placed at nursing stations, and other common areas throughout the building.

Music Care Ideas

Information collected from participants were either ideas, suggestions or general comments. Some ideas were cautionary, encouraging the need for culturally-sensitive music care practices, or the importance of attending to patient safety with regards to sound cues (i.e. ensuring call bells were still audible). Other notations were questions such as, “What about patients who can no longer speak, but they can still sing?” Some participant statements expressed a perceived need for music, stating for example, “Some hallways are very quiet in the evening; some music might cheer [patients]”. It is important to note that similar ideas were suggested multiple times across data collection approaches (charrettes, café, idea boxes).

Participant music optimization ideas were both general and solution-specific. General ideas tended to include broad suggestions, such as the need for more music therapy, the desire to engage patients in active music-making, and the possibility of playing music through the public address system. Solution-specific ideas included ideas about one or more of the following: personnel (who), programs of actions (what), locations (where), logistics (when, how) and investments (how). For example, a solution-specific idea was to use public spaces as performance venues for music students who must perform as part of their curriculum (i.e. thus attending to who, what, where). Almost half of the ideas that came from the charrette tended to be about space and design. Ideas that came from the patient music café tended to be about community and music preferences. There were also ideas expressed about other artistic media such as hosting sculptors, dancers or storytellers in the space.

10 domains of ‘music care’

Participants’ responses were categorized within the most appropriate Music Care Domain. Please see Table 1 for a description of each music care domain. Each suggestion was mapped to the most appropriate music care domains, without duplication between domains (Table 2). The numeric figure in parentheses next to each idea indicates the frequency of the suggestion.

Domain	Key Highlight
Community Music	Outside musicians or entertainers doing music
Music Care Specialties	Specific music training for wellbeing
Music Therapy	Skillfull use of music within therapeutic relationships
Musicking	Informal and spontaneous use of music
Music Programming	Formal use of music within programs
Music Technology	Technology used to deliver music ro a wellness-related goal
Sound Environment	Intentional sounds for wellbeing
Music Medicine	Prescriptive use of music-based interventions
Music Care Training	Training for caregivers to integrate music into practice
Music Care Research	Evidence-based music in care research

Table 1. 10 domains of music care delivery.

Domain	Idea Mapping
Community Music	<ul style="list-style-type: none"> ○ The Rotunda space is ideal for concerts, especially singing, acoustic, musical theatre (28) ○ Invite music students from schools, music schools, universities, etc. to perform or rehearse (8) ○ Find ways to facilitate patients’ contribution of musical gifts (6) ○ Live musical events on roof garden (6) ○ Add live music to family dining rooms (5) ○ Integrate more live music for wellbeing (i.e. concerts) (4) ○ Use Outdoor Terrace for concerts (1) ○ Place pianist near Coffee Shop (1) ○ Create stage in Cafeteria for various kinds of artists
Music Care Specialties	<ul style="list-style-type: none"> ○ Bring mobile (wandering) musicians to patients (10) ○ Have flautist or another instrumentalist playing/walking in labyrinth (5) ○ Bring in musicians trained in mindfulness practices (1) ○ Bring in musicians specialized in meditation, experimental music, spiritual care (1) ○ Facilitate having music teachers available (1) ○ Integrate Arts in Health Programs (i.e. professional musicians in health care) (1)
Music Therapy	<ul style="list-style-type: none"> ○ There is need for more music therapy (7) ○ Have music therapy integrated into other disciplines (6) ○ Family Dining Room excellent space for group music therapy (3) ○ Offer active Music Therapy (not only receptive) (2)

	<ul style="list-style-type: none"> ○ Offer Music Psychotherapy (2) ○ Install a music therapy room (1) ○ Educate patients and families about music as active agent of change (1) ○ Facilitate a community music therapy drum circle (1)
Musicking ¹	<ul style="list-style-type: none"> ○ Invest in musical instruments (8) ○ Add environmental sound and instruments for use on Labyrinth (8) ○ Allow patients and families instrument access and group facilitation in family dining room (4) ○ Engage patients in active music-making (3) ○ Add piano in cafeteria for passerby to use (2) ○ Start choirs (2)
Music Programming	<ul style="list-style-type: none"> ○ Incorporate music into existing care disciplines: spiritual care, recreation therapy, palliative care, rehabilitation, physiotherapy, occupational therapy, speech therapy (52) ○ Chronic disease (e.g. dementia), delirium, pre-operative (5) ○ Music and Staff Care (4) ○ Facilitate scheduled music events in specific areas (e.g. seasonal celebrations in family dining room) (3) ○ Video events in Family Dining Room (3) ○ Integrate music in unit-based programs (2) ○ Offer music education i.e. piano lessons (2) ○ Music and plant care/horticultural therapy in Family Dining Room (2) ○ Use music as a cueing agent/sound source in the cafeteria (2) ○ Develop Snoezelen² room (1) ○ Music in Labyrinth programs (1)
Music Technology	<ul style="list-style-type: none"> ○ "More technology" (e.g. radios) (7) ○ Offer individual listening devices/stations (10) ○ Patient Rooms – offer musical choice (4) ○ Roof Garden – install interactive music technology (3) ○ Labyrinth –install electric sensor to facilitate active creation (1) ○ Rotunda – music and images on walls (1) ○ Gym –install massage chair with speakers (1) ○ Enable radio when shuttling patients (1)

¹ Making music is an intensely human act, and is accessible to all people, regardless of training, experience, ability, or “natural talent.” The term “musicking” was first used by Christopher Small (1998), a renowned musicologist and ethnomusicologist, who proposes that music, is not a thing, but an action, a verb which he calls “musicking.” In his 1998 book, *Musicking: the meanings of performing and listening*, he writes: “To music [as a verb] is to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or practicing, by providing material for performance (what is called composing), or by dancing. In the case of music care, musicking refers to anyone informally and spontaneously involved and participating in music through any of these ways. In the case of this study, it refers to patients, families of patients, facility staff or volunteers participating in musicking.

² Snoezelen rooms are environments that provide a soothing multi-sensory experience for people with dementia, brain injury, autism or other developmental disabilities. The space combines sensory stimuli such as sound, light, scent, texture, colour, and wall or floor materials. Sensory therapy explores the environment in a non-directed way.

	<ul style="list-style-type: none"> ○ Create a hospital radio station (1) ○ Enable sound therapy devices (1)
Sound Environment	<ul style="list-style-type: none"> ○ Add environmental sound (i.e. ambient sound, nature sounds) in cafeteria, labyrinth, rotunda, patient floors, gym, roof garden, kitchen (12) ○ Add background music to cafeteria, labyrinth, roof garden, elevators, telephone system, labyrinth, dining rooms/meal times (6) ○ Add music on patient floors to connect and make feel like home (5) ○ Preferential music choices by patient/family, played publicly (4) ○ Environmental sounds are barriers in certain locations i.e. fans outside labyrinth, air conditioning in family dining room, fans in cafeteria, road sound on terrace, high winds in labyrinth, cafeteria acoustics (3) ○ Location specific considerations: rotunda (unique acoustics); roof garden (good sound quality); cafeteria (poor acoustics) (3) ○ Need sound cues for patient safety (1) ○ Minimize distractions with intentional silence in gym, public sound spaces and use of quieter spaces (1) ○ Pay attention to natural human sound and its effects on environment (1)
Music Medicine	<ul style="list-style-type: none"> ○ Explore music for stimulation, memory, delirium (4) ○ Rotunda could be a place for low-frequency and vibroacoustic interventions (1) ○ Gym – implementing entrainment for physiotherapy interventions (1) ○ Acquisition of sound therapy devices and expertise (1)
Music Care Training	<ul style="list-style-type: none"> ○ Providing adequate training for preserving distinct identities (i.e. culture and otherwise) of patients with music (5) ○ Education needed for use of music in programs (4) ○ Facility as Music Care Exemplar (2) ○ Staff training for sound therapy devices (1) ○ Patients want staff to encourage music listening (1)
Music Care Research	<ul style="list-style-type: none"> ○ Some research ideas for the facility: <ul style="list-style-type: none"> ▪ Research a labyrinth - how it reduces blood pressure, cardiac, respiratory rates (1) ▪ What is the goal/purpose of music at the facility? (1) ▪ Can the length/timing of a piece of music help patients' endurance? Does music provide a nudge to "hang in" there until they finish? (1) ▪ Does familiar music assist with delirium? (1)

Table 2. Music ideas mapped against 10 domains of music care

Considerations for the Implementation of Music Care

Many participants commented on the effect that music can have on a person, as well as the social elements and possibilities of music in the hospital. Participants in each data collection activity identified the role and potential

impact of music on patient/staff moods, how music might be incorporated into expected (as well as unexpected) physical spaces, and noted that music could bring people together and create community. The patients at the music café shared the importance of music in their lives (providing a sense of identity). One patient said “on a scale of 1-10 [music] is a 10 – very important.” Another said he was “born in music”. Statements like “it should be a [patient’s] choice” and “I prefer sounds that are inviting, and ease me into the rehab phase” suggested that many patients value agency, having influence and control over the music integrated into their personal care and the broader environment. One participant suggested that “music could create a relaxing and friendly environment that could lead to less complaining!”

Music was identified as both mechanism, and indicator of person-centred care. Ensuring all patients have equitable accessibility to music care services, resources, programming, space and information while embracing the unique needs and wishes of each individual was important to participants. For example, many individuals voiced the importance of accommodating cultural preferences in music. Patients also recognized that music has the capacity to break down barriers across professional or social roles; music has the ability to invite and facilitate relationships and interaction.

Music-making within a hospital context, could support community-building, giving patients a sense of belonging and membership in the space. One patient shared that they listened to music as a strategy to reduce loneliness. Another patient said that when groups of patients participated in karaoke recreation programming, “it was fun, and we became closer to each other.” Within that sense of togetherness, music was identified as a mechanism that could help patients establish personal identity. A charrette participant wondered if music could help “draw people in” within the new spacious, yet somewhat austere, patient units.

‘Intentional leadership’ denotes suggestions and recommendations specific to the conscious choices (intentionality) an organization must make to move towards innovative models of person-centred care delivery. Participants noted that organizations should optimize current resources and infrastructure, and demonstrate imaginative new ways of doing things. Embracing music care optimization requires forward-thinking and “outside the box” leadership, a willingness to try new things and to make small changes towards a bigger vision of better care.

Music care optimization must be context-driven and dependent. Strategies for music integration must consider the infrastructure and resources requirements, accounting for the physical environment of the health care facility. Unique features of the project site such as a renovated historic site with a rotunda, an outdoor labyrinth, a roof

garden, or communal spaces on each patient floor provide opportunities for optimizing music. Optimizing music care also requires leveraging human resources both in the facility and from the community, creating new partnerships. To this end, several participants suggested inviting community-based musicians into the facility to perform, as well as individuals suggesting that patients with musical abilities may be willing to perform for their peers.

Recommendations for Implementation of Music Care

Consistent with project objectives, a series of recommendations were the key dissemination product. Rather than making site specific recommendations regarding particular music interventions, the project team provided recommendations regarding the implementation of music more broadly. The following recommendations would also be useful for other organizations interested in conducting a music optimization project, or simply who are interested in incorporating music as an element of care.

1. Harness and act on the explicit interest from staff, volunteers and other stakeholders to implement some of the specific music optimization ideas generated. A strong enthusiasm for music within a facility and a belief that music can be effective in treatments and rehabilitation may support implementation of music programs.
2. Include music therapists and/or music care specialists in the development of the music optimization strategy. These individuals deliver individualized and community-based therapeutic interventions and their expertise will support sustainability.
3. Continue to use the music care framework as a tool for mapping existing or planned initiatives. This will assist in documenting initiatives within the facility and can support decision regarding investment of resources.
4. Cross-reference the organizational values with the essential values for music care identified in this study, ensuring alignment.
5. Look to opportunities with existing community programs and partnerships to fulfill elements of key music domains, i.e. volunteer groups or university students could participate in performances and musical visits.
6. Be aware of the highly personal nature of musical preferences for the individual, and the possibilities for conflict that might be introduced when introducing music as an element of care. There will likely be instances where offering one person's preferred music or sound environment will others' preference.
7. While music was the focus of this project and recommendations provide direction for optimization, investing in music care implementation could be a model for other artistic media in care, i.e. art,

storytelling, drama, writing etc. One potential strategy is the appointment of a chief artistic officer (CAO). By identifying one individual within a leadership role who could oversee all artistic endeavors, this would ensure standards of practice and care as well as interfacing with the artistic community-at-large.

8. Conduct additional research regarding the facilitators and barriers to optimizing each music care domain, paying particular attention for similarities and differences between rehabilitation and continuing care programs. Additional research activities, situating study site results within the extant literature should be undertaken.

Conclusion

This feasibility assessment yielded a novel and transferrable approach for conducting a music care optimization assessment, resulting in robust and actionable suggestions. Categorizing the suggestions and ideas within the Music Care domains allowed for site specific recommendations specific to each domain, and may be transferrable to other clinical settings. Patients, family members and other stakeholders who participated in this study demonstrated a commitment to incorporating music within the complex rehabilitation and continuing care environment. Implementing the ideas generated by this study will have site-specific logistical considerations, and will require support from leadership and other key decision-makers. In addition to this programmatic report, forthcoming work will situate and discuss these site specific results within the existing music and medicine literature.

Supporting Agencies

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References

1. Foster B, Bartel L (2016). Understanding music care in Canadian facility-based long term care. *Music Med*, 1(8) 29-35.
2. Ontario Hospital Association (2006). *Optimizing the role of complex continuing care and rehabilitation in the transformation of the health care delivery system*. Available at: https://www.oha.com/CurrentIssues/keyinitiatives/eHealth/Documents/Optimizing_the_Role_of_CCCandRehab.pdf. Accessed July 30, 2015.
3. Berry LL, Rock BL, Smith Houskamp B, Brueggeman J, Tucker L (2013). Care coordination for patient with complex health profiles in inpatient and outpatient settings. *Mayo Clin Proc*. 88(2), 184-194. doi:10.1016/j.mayocp.2012.10.016

4. Tinetti, Mary E and Fried, Terri R and Boyd, Cynthia M (2012). Designing health care for the most common chronic condition—multimorbidity. *JAMA : the journal of the American Medical Association*, 307(23) p. 2493
5. Boyd, C.M. and M. Fortin, (2010). Future of multimorbidity research: How should understanding of multimorbidity inform health system design. *Public Health Reviews*, 32(2), 451-474
6. van der Vleuten M. Visser A. Meenwese I. (2012). The contribution of intimate live music performances to the quality of life for persons with dementia. *Patient Education and Counseling*. 89(3). 484-488.
7. Grocke D. Bloch S. Castle D (2009). The effect of group music therapy on quality of life for participants living with a severe and enduring mental illness. *J Mus Therapv*. 46(2). 90-104. Available at: <http://search.proquest.com/docview/223564168?accountid=14771>. Accessed June 10, 2015.
8. Hays T, Michiello V (2005). The contribution of music to quality of life in older people – an Australian qualitative study. *Ageing Soc.* (25): 261-278.
9. Hilliard RE (2003). The effects of music therapy on the quality and length of life of people diagnosed with terminal cancer. *J Mus Therapy*. 40 (2): 113-137.
10. Thaut, MH, McIntosh, GC, Hoemberg V (2015). Neurobiological foundations of neurologic music therapy: rhythmic entrainment and the motor system. *Front. Psychol*. 18 <http://dx.doi.org/10.3389/fpsyg.2014.01185>
11. Schlaug G, Norton A, Marchini S, Zipse L, Wan C (2010). From singing to speaking: facilitating recovery from nonfluent aphasia. *Future Neurol*. 5(5):657-665.
12. Hurt CP, Ruth RR, McIntosh GC, Thaut MH (1998). Rhythmic Auditory Stimulation for patients with traumatic brain injury. *J Mus Ther*, 35(4) 228-241.
13. Crowe B (2004). *Music and soul making: toward a new theory of music therapy*. Lanham, Maryland: Scarecrow Press.
14. Foster B, Pearson S (2014). The fundamentals of music care: theory and context. *Music Care Certificate Program student manual*. The Room 217 Foundation, Level 1, p 16.
15. Foster B, Pearson S (2014). *Ibid*. p 16
16. Foster B, Bartel L (2016). *Ibid*.
17. Foster B, Bartel L (2016). *Ibid*. p.32
18. Foster B, Bartel L (2016). *Ibid*. p.30
19. Isenberg, C (2012). Primum nil nocere (above all do no harm): a direction for the development of music therapy. *Canadian Journal of Music Therapy*, 18(1).

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Appendix 1 – Study questions for each method

1. Design Charrette

Participants were handed a folder with this page inside of it as well as some blank paper and a pen. There was a 10 minute orientation to the philosophy and vision of Bridgepoint Health. Participants spent 5 minutes in each of the following locations and be asked this question: HOW CAN MUSIC AND/OR SOUND BE OPTIMIZED IN THIS SPACE? Participants were encouraged to write or draw ideas on the paper provided).

Name (optional) _____

Community Role _____

Musical Experience _____

How can music and/or sound be optimized in this space?

1. Labyrinth
2. Rooftop Terrace 10th Floor
3. West Facing Terrace & Lower Level
4. Dining Areas on every Floor
5. Cafeteria
6. Transitory Spaces i.e. entries, corridors
7. Swimming Pool
8. Physiorooms on every floor
9. Atrium in old jail
10. Patient rooms/lounges

Charette focus group questions

1. In small groups, share your imaginative ideas for music optimization in the spaces and programs of Bridgepoint Health based on the experience of the walking tour.
2. (Facilitator will review the Music Care framework with the group). Given what you have seen tonight and what you have heard about the philosophy and vision of care at BH, have we missed anything in the Music Care conceptual framework?
3. (Facilitator will share literature highlights about music optimization from other complex care facilities with the group). Here are things happening around the world in music optimization in complex care settings. What are your thoughts around these?

At this point, a member of the research team will present the Music Care Domains as a background for the final question.

4. Having learned about the ten music care domains, do you have any new ideas for using music at Bridgepoint Health in the future?

2 – Music Café

After a short concert by a Toronto musician, patients and family members gathered into small groups of 6-7, discussed and answered the following questions facilitated by a member of the research team.

1. What kinds of musical experiences to you currently enjoy at Bridgepoint Health?
2. Imagine the possibilities of music at Bridgepoint. How can we advance the use of music at Bridgepoint Health in the future?

At this point, a member of the research team presented the music care domains as a background for the final question.

3. Having learned about the ten music care domains, do you have any new ideas for using music at Bridgepoint Health in the future?

3 – Electronic Questionnaire

1. Do you agree to allow us to use the data you supply for report purposes as described above?
2. What is your role at Bridgepoint?
3. What is your musical experience?
4. Do you currently use music in your role at Bridgepoint Health? If yes, how do you use music?
5. Imagine the possibilities of music at Bridgepoint. How can we advance the use of music at Bridgepoint Health in the future? All ideas are welcome!

4 – Ideas Box

Imagine the possibilities of music at Bridgepoint. How can we advance the use of music at Bridgepoint Health in the future? All ideas welcome.