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EDITORIAL

Collaboration, critique, diversity

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This new issue of *Approaches* is published amid the COVID-19 pandemic and its dramatic implications worldwide. In these unprecedented and worrying times, music therapy organisations and practitioners are exploring and developing new ways of supporting people including patients, their families, as well as frontline healthcare workers. Aiming to document and disseminate such initiatives more broadly, we are actively encouraging submissions by practitioners, researchers and students who wish to reflect on the implications of the current situation for music therapy, locally, nationally or internationally (Approaches, 2020).

The papers in this issue have already appeared as online advance publications and are therefore not specific to the current COVID-19 situation. Their contents, however, bring to the fore timely issues and questions for the music therapy field, as well as for its relationship to related fields and practices. Spiro, Tsiris and Cripps, for example, offer an introduction to outcome measurement in music therapy while retaining a reflective stance towards the prevailing evidence-based practice movement. In doing so, they promote a critical and contextual understanding of the potential use of outcome measures in music therapy. The use of such measures is exemplified in StGeorge and Freeman's quasi-experimental research which is focused on a ten-week school-based intervention – the social-emotional learning programme, DRUMBEAT. Students and teachers completed pre- and post- measures which demonstrated improvements in students' self-esteem and internalising and externalising behaviours. However, as Spiro, Tsiris and Cripps argue, research environments do not always reflect the "naturally messy reality" (p. 12) of music therapy practice. In StGeorge and Freeman's case, while results were positive, the authors acknowledge that practitioners may have implemented the programme differently across participating schools.

Moreover, researchers not only inform audiences about the outcomes of music therapy practice but also provide explanations regarding why change occurs, adding to and extending the

existing knowledge base, and developing new theoretical frameworks (Edwards, 2016). To this end, Fidler and Miksza's article reports findings from an integrative review of the literature which aimed to uncover theoretical explanations that could account for the observed effects of music on pain. While they found that music-induced analgesia is a consistently observable phenomenon in clinical settings, theoretical explanations for the effect of music on pain are varied, undeveloped and lacking in physiological evidence. Interestingly, Fidler and Miksza argue for more rigorous methodological practices and suggest that this may require more extensive cross-disciplinary collaborations between experts in music therapy, music medicine, and neuroscience. In a similar vein, Short and Heiderscheit argue that Guided Imagery and Music (GIM) practitioners, who predominantly work autonomously, will be increasingly expected to work with other professionals in order to improve people's care. However, while noting that sharing information and experiences, engaging in dialogue and learning from each other will lead to a more robust, accessible and professionally embedded body of knowledge for GIM practice, they also highlight barriers and challenges regarding interprofessional collaborative research. Further reflections around interprofessional exchange and collaboration are offered in Pickard and Romppanen's interview with a focus on their experiences as music therapists teaching across disciplines in higher education.

Holden, Coombes and Evans describe an action research process which utilised a combination of qualitative and quantitative methods to find out whether and how a Problem-Based Learning (PBL) process might impact on music therapy students' practical and clinical reasoning skills. The authors argue that "the combination of facts, figures and participants' experiences gathered using this mix of research methods led to a clearer picture of the overall effect of the use of a PBL approach in music therapy training" (p. 93).

As music therapy research is growing, a wider range of methods and methodological approaches are being utilised with varied epistemological underpinnings (Edwards, 2016). This edition of *Approaches* highlights the ongoing importance of this diversity as well as the need to engage critically with it in theory and in practice. Throughout the papers mentioned above, as well as the numerous book reviews and conference reports included in this issue, a valuing of diverse practices and understandings is emerging together with the powerful potential of collegial partnerships. On this note, we would like to express our gratitude to all the individuals who served as reviewers of manuscripts submitted to *Approaches* in 2019 (see: http://approaches.gr/reviewers-2019) and warmly thank our colleague Varvara Pasiali for her significant contribution as associate editor between 2017 and 2019. In recent months, as the journal's work is expanding, we have welcomed with excitement Andeline Dos Santos as our new associate editor, as well as Theo Dimitriadis, Mitsi Akoyunoglou and Stamatis Manousakis, who have joined the team of *Approaches* as advisory editorial board member, language consultant and publishing assistant respectively.

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ΣΗΜΕΙΩΜΑ ΣΥΝΤΑΞΗΣ

Συνεργασία, κριτική, πολυμορφία

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ΒΙΟΓΡΑΦΙΕΣ ΣΥΓΓΡΑΦΕΩΝ
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Αυτό το νέο τεύχος του *Approaches* δημοσιεύεται εν μέσω της πανδημίας του COVID-19 και των δραματικών της επιπτώσεων σε όλο τον κόσμο. Σε αυτούς τους πρωτοφανείς και ανησυχητικούς καιρούς, οργανώσεις και επαγγελματίες μουσικοθεραπείας διερευνούν και αναπτύσσουν νέους τρόπους υποστήριξης των ανθρώπων, συμπεριλαμβανομένων των ασθενών, των οικογενειών τους καθώς και των επαγγελματιών υγείας που βρίσκονται στην πρώτη γραμμή. Με στόχο την καταγραφή και την ευρύτερη διάδοση τέτοιων πρωτοβουλιών, ενθαρρύνουμε ενεργά τις υποβολές κειμένων από επαγγελματίες, ερευνητές και φοιτητές που επιθυμούν να γράψουν σχετικά με τις επιπτώσεις της τρέχουσας κατάστασης στη μουσικοθεραπεία, σε τοπικό, εθνικό ή διεθνές επίπεδο (Approaches, 2020).

Τα κείμενα αυτού του τεύχους έχουν ήδη δημοσιευθεί στην Πρώτη Ματιά του περιοδικού και ως εκ τούτου δεν αφορούν συγκεκριμένα την τρέχουσα κατάσταση σχετικά με το COVID-19. Το περιεχόμενό τους ωστόσο φέρνει στο προσκήνιο επίκαιρα ζητήματα και ερωτήσεις για τον τομέα της μουσικοθεραπείας καθώς και για τη σχέση της με συναφή πεδία και πρακτικές. Οι Spiro, Τσίρης και Cripps, για παράδειγμα, προσφέρουν μια εισαγωγή στην μέτρηση αποτελεσμάτων [outcome measurement] στη μουσικοθεραπεία διατηρώντας παράλληλα μια αναστοχαστική στάση απέναντι στο κυρίαρχο ρεύμα της τεκμηριωμένης πρακτικής [evidence-based practice]. Με αυτό τον τρόπο, προωθούν μια κριτική και συγκείμενη κατανόηση της πιθανής χρήσης των εργαλείων μέτρησης/αξιολόγησης [outcome measures] στη μουσικοθεραπεία. Η χρήση τέτοιων εργαλείων αναδεικνύεται μέσω παραδείγματος στην ημι-πειραματική μελέτη των StGeorge και Freeman που επικεντρώνεται σε μια παρέμβαση δέκα εβδομάδων σε σχολικό πλαίσιο – το πρόγραμμα κοινωνικο-συναισθηματικής μάθησης DRUMBEAT. Οι μαθητές και οι εκπαιδευτικοί συμμετείχαν σε μετρήσεις πριν και μετά την ερευνητική δοκιμή στις οποίες καταγράφηκαν βελτιώσεις στην αυτοεκτίμηση

των μαθητών, καθώς και στην εσωτερίκευση και την εξωτερίκευση συμπεριφορών. Ωστόσο, όπως ισχυρίζονται οι Spiro, Τσίρης και Cripps, τα ερευνητικά περιβάλλοντα δεν αντικατοπτρίζουν πάντα την «εκ φύσεως ακατάστατη πραγματικότητα» (σ. 12) της μουσικοθεραπευτικής πρακτικής. Παρόλο που τα αποτελέσματα της μελέτης των StGeorge και Freeman ήταν θετικά, οι συγγραφείς αναγνωρίζουν ότι το πρόγραμμα μπορεί να εφαρμόστηκε με διαφορετικό τρόπο στα σχολεία που συμμετείχαν.

Επιπλέον, οι ερευνητές δεν ενημερώνουν το κοινό μόνο για τα αποτελέσματα της εκάστοτε μουσικοθεραπευτικής πρακτικής αλλά επεξηγούν γιατί συμβαίνει η αλλαγή, προσθέτοντας και επεκτείνοντας την υπάρχουσα βάση γνώσεων και αναπτύσσοντας νέα θεωρητικά πλαίσια (Edwards, 2016). Αντίστοιχα, το άρθρο των Fidler και Miksza παραθέτει ευρήματα από μια περιεκτική ανασκόπηση της βιβλιογραφίας που αποσκοπεί στην ανάδειξη θεωρητικών ερμηνειών οι οποίες θα μπορούσαν να ερμηνεύσουν τις παρατηρούμενες επιδράσεις της μουσικής στον πόνο. Ενώ διαπίστωσαν ότι η αναλγησία που προκαλείται από τη μουσική είναι ένα σταθερά παρατηρούμενο φαινόμενο σε κλινικά περιβάλλοντα, οι θεωρητικές αιτιολογήσεις για την επίδραση της μουσικής στον πόνο είναι ποικίλες, ανεπαρκώς ανεπτυγμένες και στερούνται βιο-φυσιολογικών ερευνητικών δεδομένων [physiological evidence]. Είναι ενδιαφέρον το γεγονός ότι οι Fidler και Miksza υποστηρίζουν την ανάγκη για αυστηρότερες μεθοδολογικές πρακτικές και επισημαίνουν ότι αυτό μπορεί να απαιτεί πιο εκτεταμένες διεπιστημονικές συνεργασίες μεταξύ ειδικών στη μουσικοθεραπεία, στη μουσική ιατρική και στη νευροεπιστήμη. Με παρόμοιο τρόπο, οι Short και Heiderscheit υποστηρίζουν ότι οι επαγγελματίες της μεθόδου Guided Imagery and Music (GIM), οι οποίοι εργάζονται κυρίως αυτόνομα, θα αναμένεται να συνεργάζονται ολοένα και περισσότερο με άλλους επαγγελματίες με στόχο τη βελτίωση της φροντίδας των ανθρώπων. Ωστόσο, ενώ επισημαίνουν ότι η ανταλλαγή πληροφοριών και εμπειριών, η συμμετοχή σε διάλογο και η αμοιβαία μάθηση θα οδηγήσει σε ένα πιο ισχυρό, προσβάσιμο και επαγγελματικά ενσωματωμένο σύνολο γνώσεων για την πρακτική της μεθόδου GIM, υπογραμμίζουν επίσης εμπόδια και προκλήσεις όσον αφορά την διεπαγγελματική συνεργατική έρευνα. Περαιτέρω σκέψεις γύρω από αυτή τη διεπαγγελματική ανταλλαγή και συνεργασία παρατίθενται από τους Pickard και Romppanen σε συνέντευξή τους η οποία είναι εστιασμένη στις εμπειρίες τους ως μουσικοθεραπευτές που διδάσκουν σε διάφορους κλάδους της τριτοβάθμιας εκπαίδευσης.

Οι Holden, Coombes και Evans περιγράφουν μια έρευνας δράσης η οποία αξιοποίησε έναν συνδυασμό ποιοτικών και ποσοτικών μεθόδων για να διαπιστωθεί εάν και πώς μια διαδικασία Μάθησης με Βάση το Πρόβλημα [Problem-Based Learning, PBL] μπορεί να επηρεάσει τις πρακτικές δεξιότητες και την ικανότητα κλινικού συλλογισμού των φοιτητών μουσικοθεραπείας. Οι συγγραφείς υποστηρίζουν ότι «ο συνδυασμός γεγονότων, αριθμών και εμπειριών των συμμετεχόντων που συγκεντρώθηκαν χρησιμοποιώντας αυτό το συνδυασμό ερευνητικών μεθόδων, οδήγησε σε μια σαφέστερη εικόνα του συνολικού αποτελέσματος της χρήσης της προσέγγισης PBL στην εκπαίδευση της μουσικοθεραπείας» (σ. 93, ελεύθερη μετάφραση).

Καθώς η έρευνα στο πεδίο της μουσικοθεραπείας αναπτύσσεται, χρησιμοποιείται ένα ολοένα ευρύτερο φάσμα μεθόδων και μεθοδολογικών προσεγγίσεων με ποικίλες επιστημολογικές βάσεις (Edwards, 2016). Αυτή η έκδοση του *Approaches* υπογραμμίζει τη συνεχιζόμενη σημασία αυτής της πολυμορφίας καθώς και την ανάγκη για κριτική εμπλοκή με αυτήν στη θεωρία και στην πράξη. Στα κείμενα που προαναφέρονται, αλλά και στις πολυάριθμες βιβλιοκριτικές και αναφορές από

συνέδρια που συμπεριλαμβάνονται σε αυτό το τεύχος, προβάλλεται η εκτίμηση σε διαφορετικές πρακτικές και προσεγγίσεις σε συνάρτηση με το ισχυρό δυναμικό των συλλογικών συνεργασιών. Σε αυτό το σημείο, θέλουμε να εκφράσουμε την ευγνωμοσύνη μας προς όλα τα άτομα για τη συνεισφορά τους ως κριτές των υποβληθέντων κειμένων στο *Approaches* το 2019. (βλέπε: http://approaches.gr/el/reviewers-2019) και να ευχαριστήσουμε θερμά τη συνάδελφό μας, Βαρβάρα Πασιαλή, για τη σημαντική της συμβολή ως αναπληρώτρια συντάκτρια από το 2017 έως το 2019. Τους τελευταίους μήνες και καθώς το έργο του περιοδικού διευρύνεται, καλωσορίσαμε με ενθουσιασμό την Andeline Dos Santos, ως την νέα αναπληρώτρια συντάκτριά μας, καθώς και τους Τέο Δημητριάδη, Μίτσυ Ακογιούνογλου και Σταμάτη Μανουσάκη που εντάχθηκαν στην ομάδα του *Approaches* ως μέλος της συμβουλευτικής συντακτικής επιτροπής, γλωσσική σύμβουλος και βοηθός έκδοσης αντίστοιχα.

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ARTICLE

"Sounds good, but... what is it?" An introduction to outcome measurement from a music therapy perspective

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ABSTRACT

"Sounds good, but... what is it?" This is a common reaction to outcome measurement by music therapy practitioners and researchers who are less familiar with its meanings and practices. Given the prevailing evidence-based practice movement, outcome measurement does *'sound good'*. Some practitioners and researchers, however, have a limited or unclear understanding of what outcome measurement includes; particularly with respect to outcome measures and related terminology around their use. Responding to the *"what is it?"* question, this article provides an introduction to such terminology. It explores what outcome measures are and outlines characteristics related to their forms, uses and selection criteria. While pointing to some debates regarding outcome measurement, including its philosophical underpinnings, this introduction seeks to offer a useful platform for a critical and contextual understanding of the potential use of outcome measures in music therapy.

KEYWORDS

outcome measures,
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SETTING THE CONTEXT: A STORY, OUR POSITION AND SOME DEBATES

The music therapy service at the Butterfly Care Home is on the verge of closing down after failing to demonstrate evidence of its impact on the residents. Bob, the music therapist, together with his line manager and the Head of

> Complementary Therapies –all of whom see music therapy as valuable but struggle to persuasively communicate its effectiveness to funders– are having a meeting with an external consultant to help them out.
>
> With a background in research that prioritises measurement of psychometric properties, Liz –the consultant– is well-versed in the evidence-based world and the use of outcome measures. Despite her lack of knowledge of the music therapy field, of Bob's improvisational approach and of how music therapy works in this setting, Liz proposes the use of a particular outcome measure. Although not music therapy-specific, this validated measure is being used widely to test the effectiveness of psychological interventions in care homes.
>
> The wide use of this measure –which is already 'out there'– seems appealing to Bob and his colleagues. Using this measure is likely to be a more persuasive way of showing that music therapy 'works', and they hope that funders will take its results more seriously than previous internal service evaluation feedback and vignettes.
>
> In his mind, Bob already knows that music therapy works. This measure will simply be the tool to finally prove it. This is actually in contrast with Liz's view and the measure's aim: to test whether music therapy is effective or not. The discrepancy in their assumptions is left unspoken in the meeting; perhaps giving the illusion of mutual understanding. In any case, everyone is excited!
>
> As they get nearer to the 'nuts and bolts' of how this measure will be used, some basic questions emerge. To their surprise, Bob and his colleagues start realising that they do not actually know what an outcome measure is and how outcome measurement works. After 45 minutes in this meeting, Bob takes a deep breath and asks: *"Sounds good, but… what is it?"*

This fictional story may resonate with situations that music therapists and researchers face. Despite the inclusion of assessment- and research-related modules in contemporary music therapy training programmes, training approaches and emphases vary dramatically around the world (Ridder & Tsiris, 2015; Stegemann et al., 2016). Therefore, it cannot be taken for granted that qualification in music therapy prepares professionals for understanding outcome measures and terminology associated with outcome measurement. This lack of understanding is acknowledged to varying degrees and can be played out in cases such as the opening story. Some music therapists, like Bob, who have limited understanding of outcome measures but yet are interested in learning about them, may have the courage to ask questions and try to understand what an outcome measure is and how it works. Some, however, may hesitantly remain silent, while others may not see it as their role to question or even to be part of the decision-making process regarding outcome measurement. In any case, there are diverse views on whether the use of outcome measures in music therapy is appropriate at all.

Given the prevailing evidence-based practice movement (Wigram & Gold, 2012), music therapists are likely to come across outcome measures in their workplaces. A basic understanding of outcome measurement is thus vital, and this is what this article seeks to offer; we focus on the *"what is it?"* question – that some music therapists, like Bob, would like to find out more about. As such, we offer an introduction to terminology around outcome measurement from a music therapy perspective by

considering examples from the field. For some readers, this may be seen as covering 'old ground' – given the number of related publications, many of which are much more detailed (e.g., Lyons et al., 1997; Trauer, 2010). For others, terminology may be unfamiliar and less straightforward. In either case, we hope that the music therapy frame of this article is of value to the music therapy profession and discipline. This framing can offer some insights and a bridge to wider professional and research questions in the field, including philosophical considerations that underpin outcome measurement and the debates around it in music therapy. Indeed, a basic understanding of outcome measurement is a necessary resource for critical awareness and constructive engagement in such debates.

To this end, and while this is not our primary focus, we firstly set a context by outlining our position and writing voice, and by laying out some debates around outcome measurement. Then, we focus on what outcome measures are and outline characteristics related to their forms, uses and selection criteria. In the discussion, we point towards some broader questions regarding outcome measurement in music therapy. By revisiting some epistemological and ontological considerations, we consider some possibilities and risks that outcome measures may present for the music therapy profession and discipline.

Our position and writing voice

Through our experience with different organisations that provide music therapy in diverse settings, we have been at the meeting point of research and practice where discussions between music therapists, service-users and other stakeholders, such as funders, emerge. In these discussions and given our diverse backgrounds in music psychology, music therapy and ethnomusicology respectively, we have become increasingly aware of the varying understandings and levels of familiarity with outcome measures, be they our own or those of others. Our position is that constructive dialogues regarding outcome measurement require a basic shared understanding of related terminology and of how outcome measurement works. Equally, informed debates should be based on critical reflection and not on rigid views on how knowledge is generated and what knowledge matters (Tsiris, Spiro & Pavlicevic, 2018). This balanced understanding also needs to consider the possibilities and limitations of each approach in relation to its area of investigation.

The terminology used in this article reflects the language met in outcome measurement literature generally and within music therapy. Such terminology is met in measurement-related jargon which is often associated with statistical concepts (e.g., statistical power, efficacy), and in relation to the underlying conceptualisation of music therapy practice. Given the introductory scope of the article, we explain this terminology by presenting practices, ideas and situations –like the opening story– that may be familiar to music therapists. This includes an intentional shift between jargon and more everyday language in different parts of the article. Also, we use terms such as "intervention" and "recipients of care" or "patients" which are commonly used in outcome measurement to describe therapeutic practices. These terms do not necessarily reflect our ways of understanding music therapy which welcomes sociocultural thinking. Such thinking, where terms such as "practice" and "participants" are more commonly used, brings to the fore a sensitivity to context and is associated with the emergence of community- and culture-oriented approaches to music therapy (e.g., Ansdell & Pavlicevic, 2010; Pavlicevic & Ansdell, 2004; Stige, 2002; Stige et al., 2010; Wood, 2016). In this article,

however, we are keen to explore and communicate outcome measurement in its own terms of reference.[1]

Some debates around outcome measurement

Music therapy has the potential to bring change to people's lives. This view seems to form the foundation of the music therapy profession and is shared among different music therapy models. Explorations of how and whether change occurs and the nature of this change, however, seem to vary in terms of focus and methodological approach. These variations relate to numerous factors including the philosophical underpinnings of different music therapy models (Bruscia, 1987; Spiro, Tsiris & Pavlicevic, 2014; Trondalen & Bonde, 2012), as well as individual music therapists' training and work experiences. Bruscia's (1987) seminal book *Improvisational Models of Music Therapy* is one of the first attempts to outline the philosophical orientations of different music therapy models and their relationship not only to practice but also to assessment and evaluation. Bruscia highlights, for example, the nonreferential nature of music therapy improvisation in Creative Music Therapy (also known as Nordoff-Robbins music therapy). In this context, improvisation is regarded as intrinsically meaningful without depending upon other parameters for its interpretation. This theoretical assumption translates into music-centred practices. It also has explicit implications in terms of understanding therapeutic goals as contained within the musical goals and in terms of assessing such goals by treating people's musical responses as the primary source of data.[2] And although different music therapy models evolve, expand and become multifaceted over time, some of their original orientations remain influential in their attitudes towards practice and assessment. In line with the theoretical underpinnings of these models, some researchers –depending on their orientation– may not conceive music therapy practice as an intervention with clear-cut clinical outcomes. This is the case, for example, in some improvisational and ecological approaches to music therapy where means and ends are seen as integrated (e.g., Aigen, 2005, 2007, 2008; Ansdell & DeNora, 2016; Tsiris, 2008; Wood, 2016). Such perspectives lead to a different kind of understanding of 'outcomes' which does not always sit comfortably within the outcome measurement paradigm of the evidence-based practice movement.

In addition to the different music therapy models (including their philosophical underpinnings), outcome measurement is varied according to its different contexts of application. Variation can be in terms of reason for measurement, description of measure and measurement methods. In daily music therapy practice, for example, a common reason to assess outcome is to learn more about the client(s), what their needs are and to what extent these have been addressed (Lipe, 2015; Waldon, 2016; see also Garland, Kruse & Aarons, 2003). In some research contexts, outcome assessment is commonly

[1] For a discussion regarding the use of outcome measures in music therapy research, see Spiro, Tsiris and Cripps (2018). For an overview of such measures, see the online resource *Outcome Measures in Music Therapy* (Cripps, Tsiris & Spiro, 2016).

[2] In line with their theoretical orientation and assumptions, Nordoff and Robbins developed the Nordoff-Robbins Rating Scales. After their first publication (Nordoff & Robbins, 1977), a revised version of these scales was published (Nordoff & Robbins, 2007), while more recently there have been some studies exploring the use of these scales in contemporary practices (Mahoney, 2010; Spiro et al., 2016).

part of understanding the connection between an activity or intervention (e.g., music improvisation) and its result, consequence or impact.

Despite this variety of reasons, the origins and uses of outcome measures are often associated with naturalistic approaches to knowledge. Such approaches tend to uncover underlying patterns, associations of inputs-outputs and some kinds of causal relationship (Waldon, 2016). These naturalistic approaches seem to be at odds with the constructivist or hermeneutic orientations of many music therapy models (such as psychodynamic and analytical music therapy; see Bruscia, 1987; Wigram, 1999) which currently prevail at least in Europe (De Backer & Sutton, 2014; Ridder & Tsiris, 2015; Stegemann et al., 2016). This potential mismatch between the underpinning orientations of outcome measurement and those of music therapy models has formed a basis for debates. Three common arguments that have been raised by music therapists and other professionals from a sociocultural perspective (e.g., Ansdell, 2006; DeNora, 2006; Procter, 2011; Wood, 2015) are the following:

- By focusing on certain aspects or 'ingredients' of music therapy work, outcome measurement compartmentalises practice and distances it from its context.
- There are concerns regarding the generalisation of results from an artificially controlled environment to a naturally messy reality. This generalisation reflects a dangerous leap from 'efficacy' to 'effectiveness'[3] and is connected to the perceived risk in assuming music therapy's effectiveness (or lack of) by not considering other variables (e.g., interventions that a client may receive alongside music therapy).
- Outcome measurement is predicated on a cause-and-effect view of music therapy and as such is perceived to be weak in assessing the multiplicity and variability of outcomes that are possible given the *emerging* nature of many music therapists' aims and work.

Some of these critiques –with particular reference to the experimental situations within which outcome measures might be used– are summed up by music therapist Gary Ansdell and music sociologist Tia DeNora:

> We suggest that the very bright, hygienic light of the experimental situation (and the implicit ontology of music and of health/illness associated with this situation) is probably the wrong kind of light for seeing what it is that music does and what it is that music is. We believe a different, softer (dimmer!) form of light is needed in order to perceive the subtle things that music does, to see it in its natural workings and in ecologically valid circumstances. And that a slower form of dwelling with music in situ can help us to see the variegated processes by which music helps. (DeNora & Ansdell, 2014, p. 4)

[3] Whereas 'effectiveness' refers to the degree of beneficial effect of an intervention under real-world settings, 'efficacy' intends to show that "treatment affects outcomes through a well-controlled, frequently laboratory-style experiment" (Wigram & Gold, 2012, p. 168). Effectiveness is used throughout this article as a broader term, but outcome measures can often be used in both types of investigations. A useful distinction between efficacy trials (explanatory trials) and effectiveness trials (pragmatic trials) can be found in Gartlehner et al. (2006).

Despite these critiques, there are multiple reasons that motivate music therapists to focus on outcome measurement. In addition to those who advocate for outcome measurement from an epistemological viewpoint, some use outcome measures to gain multiple perspectives on their work and/or to communicate it in a language that seems to be valued more by the medical and scientific communities.

A recent example where some of the aforementioned debates have been played out is the publication of the TIME-A randomised clinical trial (Bieleninik et al., 2017) and the responses that it has generated from the academic community and the media, as well as professional bodies (e.g., American Music Therapy Association, 2017; Gold & Bieleninik, 2018; Turry, 2018a, 2018b; Wilson, 2017). Interestingly, these debates have been partly triggered by the attention that this trial gained not only due to it being the largest study of its kind and published in a high-profile journal, but also due to its outcomes, which do not support the use of improvisational music therapy for symptom reduction in children with autism spectrum disorder. Outcome measurement and especially the rationale behind the choice of a particular outcome measure are important ingredients in these debates. In response to Turry's (2018a) critique, the researchers stated:

> [Turry's] points fall into two main categories: first, what is the most appropriate outcome for music therapy for children with autism spectrum disorder, and second, how can improvisational music therapy be standardised meaningfully. Both points are interconnected through process-outcome relations.
>
> Choosing an appropriate outcome is one of the hardest tasks in designing trials. Music therapy targets a variety of outcomes, which may differ across clients and may also change as the client and therapeutic process develop. This may be especially pertinent in autism spectrum disorder, which is a very heterogeneous disorder. (Gold & Bieleninik, 2018, p. 90)

Our view is that such considerations and dialogues are essential in the field, and for promoting a meaningful and balanced relationship between research-based practice and practice-based research. To date, these dialogues seem to happen mainly in response to studies with 'negative' outcomes. The current article and other similar endeavours, such as academic publications (e.g., DeNora, 2006) and conference presentations (e.g., Procter, 2018), hopefully encourage a proactive and constructive engagement in such dialogues.

OUTCOME MEASURES AND THEIR USES

In addressing the initial *"what is it?"* question, one needs to recognise that there are many types of outcome measures, focusing on different presenting features, different settings and patient groups. Below we explore two forms of outcome measures: non-patient and patient- based measures. We then focus on different features of outcome measures and explore various considerations (including psychometric properties) that determine the selection and use of such measures.

As mentioned above, descriptions of outcome measurement abound in the literature. In brief, and with a focus on healthcare-related literature, an outcome measure is commonly understood as a

tool developed to quantify or assess the effectiveness or impact of an intervention in terms of its capacity to have a specific, desired effect on presenting features or symptoms of patients.

The targeted presenting features or symptoms vary according to the patient group for which each outcome measure is designed. They might concern physical symptoms (e.g., pain, mobility, hormone levels), cognitive levels, mental health functioning or quality of life. Although in any given case there may be many simultaneous presenting features or symptoms, outcome measures are not intended to offer comprehensive measurements of everything. Individual outcome measures are used as indicators of change in certain presenting features and their findings may or may not be related to those of other measures which focus on other presenting features. Measures are often intended to be comparable across a group of patients or situations and often rely on numerical or categorical information such as frequency of certain types of behaviour (see, for example, the Music Therapy Diagnostic Assessment measure; Oldfield, 2006).

Outcome –together with structure and process– is seen as a core component of healthcare provision. Donabedian, who is considered the founder of the study of quality in healthcare and medical outcomes research, emphasises the importance of "identifying key features of medical care that are associated with favourable outcomes, so that these features can be preserved despite the constraints imposed by an increasingly cost conscious healthcare environment" (Donabedian, 1966, cited in Gilbody, House & Sheldon, 2003, p. 9).

Indeed, the purpose of measuring outcomes of an intervention is, ideally, not only to establish what works but also to improve the quality of care (Gilbody, House & Sheldon, 2003). The use of outcome measures can inform understanding of cost-effectiveness and decision-making in terms of funding for different interventions. Bolton and Breen (1999, p. 503) argue that "the ways in which patient outcomes are measured is a central issue in the decision-making process of future treatment and health care regimens". The consistent use of the same outcome measure or the use of compatible measures, in particular, can enable policy-makers to compare the effects of different interventions across different patient groups (Jones, Edwards & Hounsome, 2012).

Overall, there are six principal uses of outcome measures in medical practice: i) healthcare policy evaluation, ii) healthcare evaluation, iii) making individual clinical decisions in routine medical practice, iv) economic evaluation and resource allocation, v) clinical audit, and vi) healthcare needs assessment, which includes monitoring the health and assessing the needs of a population (Gilbody, House & Sheldon, 2003). Furthermore, outcome measures are increasingly used as part of basic research, i.e., research that endeavours to understand basic mechanisms or functions which could be psychological, physical or neurological.

Similar uses of measures occur in music therapy practice and research within and beyond medical settings. As shown in a review of 26 music therapy-specific measures (Spiro, Tsiris & Cripps, 2018), two main categories of function –in addition to assessment– are identified without being mutually exclusive: i) clinical work and treatment planning, and ii) screening and diagnostic assessment. Also, in some cases, the assessment elements of the measures are related to particular aspects of their application setting. The Music Therapy Special Education Assessment Tool (Langan, 2009), for example, assesses the music-therapeutic process and progress in relation to special education settings and curricula.

Certain trends in terms of the focus of outcome measures have emerged over the years, and these trends are connected to changes in the international scene of healthcare and economics. During the 20th century in particular, many Western countries experienced a rapid rise in life expectancy, accompanied by increased incidences and duration of chronic illnesses. In this context, mortality rates are no longer sufficient measures of healthcare quality (Ebrahim, 1995), and there has been a shift from focusing on length of life to quality of life (Ware, 1995). This shift is reflected in the focus of research studies and respective outcome measures. For example, the Cochrane review on music therapy for people with dementia (Vink, Bruinsma & Scholten, 2003) identified a number of studies focusing on music therapy's impact on patients' depression and emotional wellbeing, both of which are connected to people's quality of life. This shift of focus has occurred particularly in healthcare whereby measures of population mortality and morbidity are being replaced with patient-based values surrounding health (McDaniel & Bach, 1995; McDowell & Newell, 1996). The focus of each outcome measure can be taken as an indication of what is valued by the developers (and users) of such measures, or of what they think will be valued by those who read its results. Measures developed specifically for music therapy commonly focus on communication and/or interaction, cognitive, physical, social and emotional aspects, as well as musical skills and participation. The latter is one of the distinctive foci of music therapy-specific measures. Examples of musical aspects that are measured include: length of playing and rhythmic synchrony (Grant, 1995), sonorous musical communication (Raglio, Traficante & Oasi, 2006), independent playing, unusual interest in structure or shapes of instruments (Oldfield, 2006), and qualities of musical participation and resistiveness (Nordoff & Robbins, 1977).

FORMS OF OUTCOME MEASURES

There are two main forms of outcome measures: non-patient-based and patient-based outcome measures.[4] Non-patient-based outcome measures predominantly assess impairments of a patient, whereas patient-based measures tend to focus on the impact that an impairment or injury may have on patients' daily lives (Michener, 2011). For instance, rather than evaluating patients' subjective reports on mobility issues or the personal impacts of decreased mobility, patients' functional abilities might be measured using a non-patient-based measure such as the Barthel Index (Collin et al., 1988). This measure has been used in music therapy research by, for example, Raglio et al. (2010) to observe how well a patient can carry out activities of daily living.

On the other hand, patient-based measures are distinguished mainly through the data collection method, since they directly look to the patient to provide data. Despite the enormous array of such measures, patient-based outcome measures can be described as

> questionnaires or related forms of assessment that patients complete by themselves or, when necessary, others complete on their behalf, in order that evidence is obtained of their experiences and concerns in relation to health

[4] Non-patient-based measures are also known as proxy, non-patient reported or clinician-rated outcome measures. Patient-based measures are also known as self-reported measures.

> status, health-related quality of life (QoL) and the results of treatments received. (Fitzpatrick et al., 1998, p. 1)

The fact that 'patient-based' might refer either to measures rated by the patients themselves or to measures rated by a third-party informant, such as a caregiver or a clinician, arguably creates some ambiguity in the classification of such measures. In any case, patient-based outcomes are particularly relevant to interventions, such as music therapy, that involve participation and development of patient-therapist relationship, and for this reason we discuss them in greater detail below. Firstly, however, we report on non-patient-based outcome measures which were commonly used in healthcare before the relatively recent emphasis on those which are patient-reported.

Non-patient-based outcome measures

Non-patient-based measures often do not require direct input by the patient. This can be very useful in instances where patients are not in a position, or lack the capacity, to discuss their experiences (e.g., people with advanced dementia or severe autism spectrum disorder). In such cases, measures might rely on task completion or observational methods, either completed by a clinician or someone else close to the patient (e.g., family member). Among several measures reported in Cripps, Tsiris and Spiro (2016; see also Spiro, Tsiris & Cripps, 2018), an example of a music therapy-specific outcome measure which is non-patient-based is the Music Therapy Checklist (Raglio, Traficante & Oasi, 2007).

A wide range of non-patient-based measures are used particularly in the area of dementia: these include task-based activities that would screen for dementia, such as the 7 Minute Screen (Solomon & Pendlebury, 1998), and observational measures to quantify aggression in behaviour, such as the Empirical Behavioral Pathology in Alzheimer's Disease (E-BEHAVE-AD) rating scale (Auer, Monteiro & Reisberg, 1996). In the area of autism, the Emotion Recognition Test (ERT) involves task completion whereby the child with autism is asked to identify what emotions are represented by standardised photographs of facial expressions (Ryan & Charragain, 2010). Another autism-related outcome measure is the Autism Social Skills Profile (ASSP); a measure based on child observation that identifies social reciprocity, social participation and detrimental social behaviours. In Schwartzberg and Silverman's study (2007) the ASSP was completed by parents to examine the effects of music-based social stories on their children's comprehension and generalisation of social skills. None of these measures, however, were developed specifically for music therapy.

Measures that detect physiological features of the patient can be used to indicate emotional changes. For instance, plasma cortisol in saliva is a biochemical marker for stress (Chu et al., 2013). Taken together, clinician-rated measures and patient-based measures can be mutually informative and work in conjunction with each other.

Patient-based outcome measures

Patient-based outcome measures are particularly important given that they consider patients' perspectives: they enable people who receive or take part in a healthcare intervention to communicate their experience. It is also within the interests and priorities of service providers to obtain feedback

and information directly from the service-users or treatment recipients. This is evident in the emphasis of healthcare systems on service-user involvement and in the corresponding outcomes movement (Barr, 1995) which emphasises the need for patient-based measures which correspond appropriately to the complex nature of practices, such as the arts therapies (Hackett, 2016). This emphasis on measuring the impact of healthcare interventions from the patients' perspectives led, for example, to the introduction of Patient Reported Outcome Measures (PROMs) within the UK's National Health Service (The Chartered Society of Physiotherapy, 2013).

Patient-based measures differ from those developed in many biomedical contexts in terms of what they seek to measure. Whilst biomedical measures tend to monitor physiological changes, patient-based measures ask patients to feed back on "unavoidably 'subjective phenomena' that cannot be objectively verified" (Albrecht, 1994, cited in Gilbody, House & Sheldon, 2003, p. 10), such as patients' own experiences of satisfaction, difficulty, distress, health improvement or symptom severity. A similar distinction is made between patient-based and clinical measures. The latter seems to be "narrowly focused", principally used by health professionals to "assess physiologic, other biomedical, or limited functional dimensions of health" (Barr, 1995, p. 13). On the other hand, patient-based outcome measures seem to be more broadly defined and focus more on patients' values and perceptions concerning their own health. Thus, patient-based measures often address aspects of health that are related to quality of life and health, including psychological, social and physical health, impairments, functional status, health perceptions and opportunities (Testa & Nackley, 1994).

In sum, the patient-oriented focus of such measures characterises how data is collected, as well as what data is produced. Their data collection methods often include questionnaires, interview schedules and rating scales. The Hospice Music Therapy Assessment (Maue-Johnson & Tanguay, 2006) is an example of a music therapy-specific outcome measure where data collection includes interviews with the patient and their family members.

FEATURES INFORMING CHOICE AND USE OF OUTCOME MEASURES

Having set the wider context of outcome measurement and presented the two main forms of measures, here we focus on the features that determine their use. In determining whether an outcome measure is appropriate and relevant for use within a given practice or research context, and informed by the work of Bausewein et al. (2011), we propose six key considerations:

(i) Aims of use: The aim of any assessment informs the duration of the enquiry, the type of data, as well as the expertise required to carry out the assessment. The chosen outcome measure must be suitable for the ultimate aims of an assessment.

(ii) Accessibility: This concerns the availability, cost, complexity, as well as length of time expected to get access to and administer a given outcome measure. Although, some measures may be open-access, many need to be purchased. Decisions regarding the pricing of outcome measures usually lie with the developers and their affiliated institutions. Whilst some outcome measures can be self-administered, some measures, such as the Music Therapy Assessment Tool for Awareness in Disorders of Consciousness (MATADOC; Magee, 2007), require training to administer and are only available to the trained or initiated user, whether practitioner or researcher. Also, some measures, such

as the Music Therapy Assessment for Disturbed Adolescents (Wells, 1988), are task-based and require the administration of a specific protocol.

(iii) Categories of outcome: This refers to the specific kind of change that a measure aims to monitor. This might include, for example, levels of agitation, quality of life, or pain severity. What needs to be measured is informed by the purpose of each enquiry. In other words, outcome measures should be congruent with the reasons for using them. Along these lines, Bausewein et al. (2011) suggest that when selecting which measure to use one must consider what the measurement data would be used for. For instance, is the measure for a research study or for routine clinical purposes?

(iv) Type of assessment scale: The assessment scale type needs to be considered carefully, alongside factors pertaining to the use of such a scale in real-life contexts and with particular populations. For example, a highly sophisticated and complex measuring scale may not be appropriate for routine clinical checks administered by busy hospital staff. Likewise, a rating scale that requires clinicians to ask complex verbal information from a cognitively impaired patient would be problematic. In all cases, the viability of data collection methods should be ethically sound.[5]

(v) Condition group: Condition group concerns the classification of symptoms as they appear in different patient groups. Such classification influences decisions regarding what type of data might be desirable and what data would be realistic to be expected. Outcome measures are commonly developed for patient groups with specific symptoms or presenting features. For example, in the context of disorders of consciousness, the following aspects are commonly focused on: motor responses, arousal, as well as auditory and visual responsiveness. An example of a music therapy outcome measure assessing these aspects is the MATADOC (Magee, 2007).

(vi) Disciplinary origin: The purpose and the approach behind the design of an outcome measure is typically influenced by its respective target field of practice. The scale Interest in Music (IiM; Gold et al., 2013), for example, was developed within the field of music therapy to measure interest in music among clients in mental health care. The purpose and approach of this scale have been influenced by contextual and relational music therapy models which propose the importance of music-related outcomes in clients' everyday lives.

In addition to the six key considerations mentioned above, the selection and use of appropriate outcome measures needs to be underpinned by a number of practical factors such as: the suitability of a measure for a given practice or research situation, including its context and patient group (location, diagnoses, symptoms, age range, cognitive capabilities); purpose, methods of data collection, ease of administration, accessibility, cost, length, and interpretability, as well as internal consistency and a theoretical fit between what is being measured and the measuring instrument itself. In addition to these practical considerations, equally important in the selection and use of outcome measures are a range of conceptual and technical features regarding outcome measurement. These features –each of which are developed in the respective subsections below– relate to sample size, measurement of multifaceted phenomena, context specificity vs. comparability, as well as feasibility and psychometric properties of measures.

[5] For a discussion of research ethics considerations in music therapy and in arts and health more broadly, see Farrant, Tsiris and Pavlicevic (2014).

Sample size

The acceptability and, where relevant, the statistical power[6] of outcome measurement results is often associated with sample size (Guo, Chen & Luh, 2011), and various music therapy studies have been criticised for their small sample size. Music therapy is not the only field in which questions around sample size, statistical methods and reporting have arisen (for examples in other fields see Button et. al., 2013; Ioannidis, 2005). Though the criticism of many studies concerns small sample sizes, the assumption that larger samples lead automatically to stronger findings has been widely debated.[7] Given that, in many cases, outcome measures are used in very specific circumstances there is no necessary assumption that results from a given outcome measure are generalisable beyond their specific aspects; neither is there an inherent restriction on looking at individual differences in the context of outcome measures. Although sample size is a common research concern, related questions may arise in relation to the number of participants for whom outcome is measured in practice contexts. Similar questions around sample size relate to studies that focus on the development and validation of outcome measures themselves. When carrying out such studies, it is equally important to choose the appropriate number of participants. However, although an "inappropriate sample size can lead to erroneous findings" (Anthoine et al., 2014, p. 2), when it comes to development and validation of scales and the identification of appropriate questionnaire structure, there is currently no commonly held standard for sample size as is typical in other clinical research.

Measurement of multifaceted phenomena

As explained above, outcome measures aim to assess the impact of an intervention on specific presenting features or symptoms of patients. Presenting features and symptoms, however, do not exist in isolation. On the contrary, they are embedded in, often complex, contexts; they vary both from person to person and within individuals, they have multiple potential triggers, and they may emerge in diverse ways and within different environments. This reality poses certain challenges when it comes to measuring change in targeted features or symptoms. These challenges have been discussed widely and, in a study regarding back pain, Bolton and Breen comment:

> Selecting outcome measures for use in research trials in conditions such as back pain […] has always been problematic […] [since pain], the primary symptom of back pain, is a multidimensional, individual experience or behavior with a number of sensory, affective, cognitive/behavioral, and social aspects. (Bolton & Breen, 1999, p. 503)

In some cases, the use of different types of scales in tandem with each other can mitigate issues concerning multidimensionality of presenting features (Fitzpatrick et al., 1998).

[6] Statistical power refers to the likelihood that a measurement will distinguish an actual effect from one of chance.

[7] Further considerations regarding sample sizes can be found in the context of randomised controlled trials (Vink, Bruinsma & Scholten, 2003), case study research (e.g., Gomm, Hammersley & Foster, 2000; Lieberson, 1991) and in related music therapy literature (e.g., DeNora & Ansdell, 2014).

It might be the case that similar symptoms arise for different client groups and thus an outcome measure might be transferable in terms of content and presentation. For example, the Immediate and Deferred Prose Memory tests (Novelli et al., 1986) that measure lexical performance and semantic memory have been used with dementia clients in a study exploring a manualised music-based protocol for the rehabilitation of cognitive functions (Ceccato et al., 2012), despite the fact the measure was not specifically developed for this population. Similar tests for memory and lexical performance might also be used for patients with various types of trauma, or patients who are undergoing rehabilitation, for instance.

Similar kinds of challenges are faced when exploring how music therapy works in community, medical and other contexts, and when measuring change within such contexts. Here, the difficulties regarding measurement of multifaceted phenomena relates not only to the nature of presenting features outlined earlier, but also to the multifaceted nature of music-making situations which are core to music therapy practice. Reflecting on the difficulties and limitations in developing the IiM scale, for example, Gold et al. (2013) acknowledge that

> an important conceptual limitation of the IiM scale is that it is organized around various ways of musical engagement (singing, playing, and listening) and not clearly articulating the functional uses of music and the use of music as accompaniment to other activities. (Gold et al., 2013, p. 678)

The challenges that emerge from the complexities of studying (inter)subjective, multifaceted and contextual phenomena have often been a springboard for debates and critiques of the use of outcome measures in music therapy and of the evidence-based practice movement more generally (Aigen, 2015; DeNora & Ansdell, 2014). Others suggest an integral understanding of evidence-based music therapy practice (e.g., Abrams, 2010; Wheeler & Murphy, 2016).

Context specificity and comparability

In addition to the six key considerations discussed above, as well as issues of sample size and measurement of multifaceted phenomena, the selection and use of outcome measures is determined by their context specificity or their comparability. Non-context-specific measures may not be sensitive enough to identify specific details of the phenomenon under study. For this reason, the use of different measures in conjunction with each other has been proposed (Fitzpatrick et al., 1998; Jones, Edwards & Hounsome, 2012).

The comparability of measures is connected to cost-effectiveness. Financial resources are distributed partly according to how interventions compare to each other: Which intervention is going to best deliver cost-effective results when implemented? A measure used in isolation does not allow for comparability and, in turn, measuring tools require a reference framework in order to be meaningful. For this reason, choosing a measure that operates within a relevant framework of comparison is arguably just as crucial as choosing one on the basis of its tested validity. Despite the ease of administering and scoring them, the End of Life in Dementia (EOLD) scales, for example, have been critiqued for being valid only for a narrow target group (Parker & Hodgkinson, 2011).

Feasibility and psychometric properties

The feasibility and psychometric properties of outcome measures are key issues in the selection, use and usefulness of such measures. Feasibility concerns how straightforward the use and scoring of an outcome measure is. It also relates to considerations around availability, cost and length. Convoluted or long-winded measurement methods can be problematic, particularly when working with vulnerable patient groups where simplicity might be favoured over more thorough measures. The practical feasibility and suitability of a measure for a given context can affect the strength of the collected data (Fitzpatrick et al., 1998).

Psychometric properties of outcome measures relate to the quality and detail of the information generated by the measures. These properties refer to "quantifiable attributes […] that relate to the statistical strength or weakness of a test or measurement" (Medical Dictionary for the Health Professions and Nursing 2012: no pagination). Several outcome measures in music therapy, such as the Music in Dementia Assessment Scales (MiDAS; McDermott et al., 2014) and the MATADOC (Magee et al., 2016), have been assessed for their psychometric properties.

Reliability and validity are two crucial psychometric properties. On the one hand, reliability refers to "the ability of the outcome measure to consistently measure an attribute" (Parker & Hodgkinson, 2011, p. 7). In other words, it refers to the ability of a measure to give consistent results under similar circumstances. Prickett illustrates this with a music-related example:

> A dependent variable that purported to measure musical aptitude, but which gave widely differing results when administered to the same person three consecutive times or when scored by several different people, would not be reliable, and to attempt to base a study on this measure would be foolish. (Prickett, 2005, p. 54)[8]

Reliability assessment tends to depend on numeric tests.[9]

On the other hand, validity is concerned with "the beguilingly simple question of whether a [measure] is truly assessing what it purports to assess" (Fitzpatrick et al., 1998, p. 2). Some may argue it is an intellectual ideal and an elusive goal that we can never fully reach (Prickett, 2005). Assessment of validity tends to relate to the conceptual construction of an outcome measure and relies on close analysis of its items. In other words, validity focuses on the meaning and interpretation of a measure's content.

Tables 1 and 2 outline different types of reliability and validity respectively drawing from several sources: American Educational Research Association, American Psychological Association, and National Council on Measurement in Education (1985), Cozby (2001), Cronbach (1971), Moskal and Leydens (2000), and Phelan and Wren (2005-2006). A fuller description regarding reliability and validity can be found in Carmines and Zeller (1979), while two examples of studies focusing on the reliability

[8] A dependent variable is a variable whose value is affected by (i.e., is 'dependent' on) another variable: the independent variable. Assessment typically measures how changes in the independent variable (e.g., music therapy intervention) cause changes to the dependent one (e.g., musical aptitude).

[9] For more information regarding numerical and statistical approaches, see Meadows (2016), Waldon (2016) and Streiner, Norman and Cairney (2015).

and validity of music therapy-specific measures can be found in Gold et al. (2013) and Magee et al. (2016). These studies concern the IiM and the MATADOC measures respectively.

DISCUSSION: SUMMARY AND REFLECTIONS

In this article we have offered an introduction to terminology around outcome measurement through a music therapy frame. This frame involved not only the consideration of music therapy examples in terms of the application of outcome measurement, but also an outline of current debates regarding outcome measurement in the field. From this point of view, the article does not only introduce outcome measurement terminology, but also hints to the professional discourse around such terminology. Below, after summarising the key terms explored in the article, we reflect on the importance of understanding outcome measurement terminology for future dialogues and developments in the field.

Type of reliability	Description
Test-retest reliability	This type of reliability assesses whether results are consistently replicable. It can be obtained by administering the same outcome measure twice to the same group of people. The two sets of scores can then be correlated in order to evaluate stability over time.
Parallel forms reliability	This type is obtained by administering to the same group of people different versions of an assessment tool (both versions must contain items that probe the same construct, skill or knowledge base). The scores from the two versions can then be correlated in order to evaluate the consistency of results across alternate versions.
Inter-rater reliability	This type is used to assess the degree to which different raters agree in their measurements. Inter-rater reliability is useful because observers may not interpret material in the same way.
Internal consistency reliability	This type evaluates the degree to which different measure items that probe the same construct produce similar results.
• Average inter-item correlation	This subtype of internal consistency reliability is obtained by taking all of the items on a measure that probe the same construct (e.g., reading comprehension), determining the correlation coefficient[10] for each pair of items, and taking the average of all of these correlation coefficients, thus yielding the average inter-item correlation.
• Split-half reliability	This subtype of internal consistency reliability starts by splitting in half all items of a measure that are intended to probe the same area of knowledge in order to form two sets of items. The entire measure is administered to a group of individuals, the total score for each set is calculated, and finally the split-half reliability is obtained by determining the correlation between the two total set scores.

Table 1: Types of reliability

[10] The correlation coefficient gives a statistical relationship between two variables.

Type of validity	Description
Face validity	This type of validity concerns the extent to which the measure is subjectively seen to cover what it purports to assess. Face validity is the type that respondents can easily assess and it may therefore be an essential component in enlisting their motivation. If the respondents do not believe the measure accurately captures their opinions, they may become disengaged with it.
Construct validity	This type is used to ensure that the measure actually tests what it is intended to (i.e., the construct as developed from theory)[11] and not something else. Experts familiar with the construct can examine the items of an outcome measure and decide what each specific item is intended to assess.
Content validity	This type is used to estimate how much a measure represents each element of a construct. This requires expert evaluation of whether the outcome measure items assess what they were intended to assess. For example, in clinical settings, content validity refers to the correspondence between items in the outcome measure and a given set of symptoms.
Criterion validity	This type correlates measurement results with performance or behaviour in another situation. In the other situation a different measure may be used.
Formative validity	This type is used to assess the extent to which a measure can provide information to help improve the intervention under study.
Sampling validity	This type is similar to content validity and ensures that the measure covers the broad range of areas within the construct under investigation. Given that not everything can be covered, items from all of the areas need to be sampled. This may need to be completed by experts to ensure that the content area is adequately sampled.

Table 2: Types of validity

To sum up, an outcome measure is an instrument that is used to assess the effectiveness or impact of an intervention in achieving its aims. This often involves measuring the impact of an intervention on a patient's presenting features or symptoms. Outcome measures may be non-patient-based or patient-based. The former commonly utilise observation, task-based activities or measurement of physiological elements whilst questionnaires and interviews dominate the latter, using the patient as the primary informant. Principal uses of patient-based outcome measures include: healthcare-policy evaluation, healthcare assessment, making clinical decisions in routine practice, economic assessment and resource allocation, clinical audit, as well as monitoring and assessing the health and needs of a population.

In music therapy (and other related disciplines) introductions like the one offered here can bridge gaps between practitioners and researchers as well as professionals from different research traditions who may be less familiar with outcome measurement. This article complements other similar

[11] In the Music Therapy Coding Scheme (Raglio, Traficante & Oasi, 2006), for example, constructs refer to nonverbal communication, countenance, verbal communication and sonorous musical communication.

endeavours in music therapy (e.g., Lipe, 2015) and beyond.[12] For example, Pasiali, Schoolmeesters and Engen (2018) offer an analysis of resilience-related measures and, after identifying their salient psychometric properties, they draw conclusions about practical uses in music therapy. Also, the online resource *Outcome Measures in Music Therapy* (Cripps, Tsiris & Spiro, 2016) gives an overview of existing music therapy-specific outcome measures.

Going back to our opening story, we envisage that the initial understanding of outcome measures offered in this article answers Bob's question: *"Sounds good, but… what is it?"* As a music therapist learns more about outcome measurement and starts using measures in their practice or research, additional questions inevitably emerge, not only in terms of their use and method but also in terms of their fit with different music therapy approaches and theoretical orientations. This is where an understanding of the debates around outcome measurement is informative. As outlined earlier, some main concerns pertain to the compartmentalisation of music therapy, the distance from context, the generalisation of results as well as the assumption of cause and effect in music therapy.

Fostering an integral understanding of evidence-based music therapy practice (Abrams, 2010; Tsiris et al., 2016) where –instead of antagonism– different research approaches are seen as complementary, we advocate for a critical engagement with outcome measures and their potential uses in music therapy. A respectful understanding of different research terms, methods and orientations necessitates an understanding of their particular contexts of reference. We also argue that reflexivity –although it seems to be discussed more often within qualitative or interpretivist approaches to research (see Wheeler & Murphy, 2016; Wheeler & Rickson, 2017)– is a necessity for any rigorous enquiry, whether practice- or research-based, and irrespective of its philosophical underpinnings. In our view, reflexivity forms the basis for making balanced claims and fair representations of the results of each enquiry.

From this point of view, and while avoiding epistemological polarities, this article enhances understanding of outcome measures, their characteristics and their uses in music therapy. By offering an introduction to outcome measurement terminology and by giving examples from music therapy, this article also contributes to a more informed engagement with outcome-based research and related debates in the field.

The increased familiarity of music therapists with terminology and procedures involved in outcome-based research is an essential step towards bridging the gap between research and practice, as well as between outcome-based and other types of enquiry; and we argue that music therapy training is well placed to cultivate such familiarity. Likewise, better understanding of outcome measurement leads to a more critical and constructive engagement with such research which seems to be treated, at times, blindly by funders, policy-makers and service providers as the only rigorous approach. However, awareness of the difference, for example, between *efficacy* and *effectiveness* (i.e., between effect under controlled and real-word clinical settings) could help understand how outcome measurement is represented and understood (Fleischhacker & Goodwin, 2009; Gartlehner et al., 2006; Wigram & Gold, 2012). A study indicating *efficacy* of a music therapy intervention within a particular

[12] Non-music therapy examples include Kyte et al. (2015) who offer an introduction to patient-reported outcome measures in physiotherapy, as well as Young et al. (2015) who focus on outcome measurement in prosthetics and orthotics.

research context, for example, does not guarantee its *effectiveness* in everyday music therapy contexts.

Outcome measures are ubiquitous in randomised controlled trials, which are, in turn, considered the 'gold standard' in the evidence-based practice movement (Evans, 2003; Wigram & Gold, 2012). And indeed, such trials in music therapy and other music interventions are growing in number (Kamioka et al., 2014; Mrázová & Celec, 2010; Spiro, Tsiris & Pavlicevic, 2015; Treurnicht Naylor et al., 2011). Although the philosophical and methodological underpinnings of this type of research (as well as the criteria and assumptions regarding what is considered to be 'robust evidence') have been debated widely both in music therapy (e.g., Abrams, 2010; Aigen, 2015; Ansdell, 2006; DeNora, 2006; Stige, Malterud & Midtgarden, 2009; Wigram, 2006) and in other fields (e.g., Raw et al., 2012; Williams & Garner, 2002), such studies play a key role in expanding the current evidence base of music therapy and in shaping new policy initiatives. The exploratory randomised trial by Talwar et al. (2006), for example, contributed to the integration of music therapy in the UK's National Institute for Health and Care Excellence (NICE) guidelines for schizophrenia, while studies including those by Mössler et al. (2011) and Gold et al. (2009) played a role in drawing the attention of policy-makers in Norway and informed the subsequent inclusion of music therapy in the Norwegian Directorate of Health's guidelines for the treatment of psychotic disorders (see Nebelung & Krüger, 2015). All these developments, of course, raise a number of possibilities and opportunities as well as dilemmas and risks for music therapy in terms of the identity and quality of music therapy practices, as well as education and professionalisation (Stige, 2015).

In closing, we encourage a critical engagement with outcome measurement in music therapy. This requires an understanding of associated terminology, which has been the focus of this article. It also requires an awareness of the debates around outcome measurement and of their implications on the profession and practice of music therapy.

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Ελληνική περίληψη | Greek abstract

«Καλό ακούγεται, αλλά… τι είναι;» Μια εισαγωγή στη μέτρηση αποτελεσμάτων από μια μουσικοθεραπευτική προοπτική

Neta Spiro | Γιώργος Τσίρης | Charlotte Cripps

ΠΕΡΙΛΗΨΗ

«Καλό ακούγεται, αλλά… τι είναι;» Αυτή είναι μια κοινή αντίδραση απέναντι στη μέτρηση αποτελεσμάτων [outcome measurement] από τους επαγγελματίες και ερευνητές μουσικοθεραπευτές που είναι λιγότερο εξοικειωμένοι με τις έννοιες και τις πρακτικές της. Δεδομένου του κυρίαρχου κινήματος της πρακτικής που βασίζεται σε τεκμήρια [evidence-based practice], η μέτρηση αποτελεσμάτων είναι πράγματι κάτι που «ακούγεται καλό». Μερικοί επαγγελματίες και ερευνητές ωστόσο έχουν περιορισμένη ή ασαφή κατανόηση του τι περιλαμβάνει η μέτρηση αποτελεσμάτων, ιδίως αναφορικά με τα εργαλεία μέτρησης/αξιολόγησης [outcome measures] και τη σχετική ορολογία γύρω από τη χρήση τους. Ανταποκρινόμενο στην ερώτηση *«τι είναι;»*, το παρόν άρθρο προσφέρει μια εισαγωγή στην εν λόγω ορολογία. Διερευνά το τι είναι τα εργαλεία μέτρησης και περιγράφει τα χαρακτηριστικά που σχετίζονται με τις μορφές, τις χρήσεις και τα κριτήρια επιλογής τους. Επισημαίνοντας ορισμένες συζητήσεις γύρω από τη μέτρηση αποτελεσμάτων, καθώς και των φιλοσοφικών θεμελίων της, αυτή η εισαγωγή επιδιώκει να προσφέρει μια χρήσιμη πλατφόρμα για μια κριτική και πλαισιωμένη κατανόηση της πιθανής χρήσης των εργαλείων μέτρησης στη μουσικοθεραπεία.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ

εργαλεία μέτρησης/αξιολόγησης, αξιολόγηση/μέτρηση, ορολογία, εισαγωγή, μουσικοθεραπεία

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ARTICLE

Social-emotional learning through a drumming intervention

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ABSTRACT

The growth of social and emotional competence is considered a developmental goal of childhood and adolescence. While early caregiving and family environment are key to children's wellbeing and developmental trajectories, social-emotional learning (SEL) interventions may reduce young people's vulnerability to internalising and externalising problem behaviours if family or environment factors present some risk. The purpose of this study was to evaluate the impact of the SEL program DRUMBEAT (Discovering Relationships Using Music, Beliefs, Emotions, Attitudes and Thoughts), a ten-week school-based intervention. Students who took part in the DRUMBEAT program (N = 75, 64% male, 59% Primary School, 18% Indigenous) across six Australian schools, and their teachers, completed pre and post measures of Self-Esteem and the Strengths and Difficulties Questionnaire. Linear mixed model analyses showed there were significant improvements in students' self-esteem, and internalising and externalising behaviours, as reported by students and teachers. Drumming has the potential to draw young people into an educative environment where rhythm, collaboration and discussion can enhance understanding of intra- and interpersonal processes.

KEYWORDS

social behaviour,
emotion regulation,
intervention,
school-children,
adolescents,
drumming

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INTRODUCTION

The growth of social and emotional competence is considered a developmental goal of childhood and adolescence. Social and emotional skills include cognitive, affective and behavioural competencies such as self-awareness, self-management, social awareness, relationship skills and responsible decision-making (Collaborative for Academic Social and Emotional Learning, CASEL, 2012). Positive development of these attributes is related to continuance in school, further education, employment and social mobility (Zubrick, Silburn & Prior, 2005). Students lacking in socio-emotional skills are more

likely to become alienated from school settings and engage in anti-social and risky behaviours (Rutter, 1985).

Examples of such anti-social and risky behaviours were captured in a 2013 survey of Australian youth. The *Report Card: Wellbeing of Young Australians* (Australian Research Alliance for Children & Youth, ARACY, 2013) stated that the suicide rate for 15-24 year olds was 10 per 100,000, and that between 15% and 18% of 14-19 year-olds engaged in substance use (risky alcohol use and illicit drugs). Furthermore, violent behaviour (intention to cause injury) by 15-19 year olds, was 887 per 100,000. These statistics indicate a rupture in young people's developmental trajectory.

Although early caregiving and family environment are key factors in children's wellbeing and developmental trajectories (Blair, Raver & Berry, 2013), social-emotional learning (SEL) interventions in later childhood and adolescence may reduce young people's vulnerability, address their needs, and redirect their motives (Ollendick & King, 2003). Social emotion learning programs aim to teach skills that complement academic performance, and many of these programs are as successful in promoting academic mastery as other educational interventions (Durlak et al., 2011). Recent research points to the effectiveness of prevention programs in childhood and adolescence for psychosocial wellbeing, compared to both control groups as well as in comparison to treatments including medications (Merry et al., 2011), and there are now increasing numbers of psychosocial programs in schools (Morris et al., 2013). Such school-based interventions have a wide reach, can target children most at risk, and there may be less risk of participant attrition. Having interventions based in schools may also help to reduce attitudinal and pragmatic barriers to mental health care.

SEL interventions in schools vary widely in their approach, and some programs use music as a therapeutic tool, based on the premise that music is a key part of adolescent lifestyle and a gateway to self-expression and social connectedness (North, Hargreaves & O'Neill, 2000). Indeed, given the acknowledged importance of music in young people's lives, it is surprising that it is not more often used as an intervention 'hook' for re-engagement with school and its purposes. There is a generalised recognition of the benefit of school-based music education to child and adolescent psychosocial wellbeing, however, as yet, there is little empirical evidence of its benefit (Crooke & McFerran, 2014), although guidelines and best practice point to how this may be achieved (Crooke, McFerran & Bolger, 2017; McFerran, Garrido & Saarikallio, 2016). In the broader field of music therapy, there is a proliferation of programs and amassing empirical evidence to support the use of music in targeted interventions for adolescents with emotional challenges. For example, music therapy can successfully address aggressive behaviour in adolescent boys (Rickson & Watkins, 2003), psychosocial wellbeing in adolescent girls (Hadley & Veltre, 2012), grief-related distress in adolescents (McFerran, Roberts & O'Grady, 2010), and enhance the wellbeing of adolescents in psychiatric wards (Patterson et al., 2015); for a review and meta-analysis, see Gold, Voracek and Wigram (2004).

However, for children and adolescents in school settings, there are few music-based psychosocial programs or interventions either universal (aimed at the entire student population) or targeted (aimed at students at elevated risk or those already demonstrating difficulties). One experimental study in the Netherlands using rap music (singing) with a universal approach found a decline in emotional and behavioural problems for all adolescent participants, while problems increased in the control group (Uhlig, Jansen & Scherder, 2018). Two percussion/drum-based interventions in schools have also been successful (Currie & Startup, 2012; Ho et al., 2011). These

interventions utilised guided psychoeducation or group counselling along with music in order to engage young people in the program, offer opportunities for satisfying experiences, and enhance the potential for significant change in the students' emotional and social competence. In 'Doing Anger Differently', a psychotherapeutic program using drums and percussion to treat reactive aggression in adolescent males (Currie & Startup, 2012), participants demonstrated reductions in aggression and trait anger, including at a 6 month follow-up. In Ho et al. (2011), 5th grade students (boys and girls) in a low-income school took part in a drumming intervention implemented by a school counsellor. The program had wide-ranging positive effects on externalising and internalising behaviours, depression and other negative clinical and cognitive problems.

The evidence in the study by Ho et al. (2011) demonstrates that one pathway to improving internalising and externalising behaviours is through improving neuroendocrine and immune levels, so reducing physiological stress. In the Ho et al. study, this was achieved through drumming and personal interaction. Executive functions such as focus, effortful attention and inhibition can also be developed through drumming (Brown, 1997). It has been suggested that this benefit may derive from the rhythmicity and physicality of the drumming activity, which may be regulative and organising for neurological functioning (Perry, 2009).

One drumming program that has had wide uptake in Australia and internationally is DRUMBEAT (Discovering Relationships Using Music, Beliefs, Emotions, Attitudes and Thoughts, http://www.holyoake.org.au/content-red.php?CID=114). This prevention program uses group drumming processes and cognitive behaviour therapy principles in order to foster adolescents' self-esteem, social skills and sense of belonging. There are various formats in which DRUMBEAT is delivered, including a ten-week school-based delivery. There are five main elements in the DRUMBEAT program, which include four musical elements of core rhythms, rhythm games, improvisation and performance, and one element of discussion. Led by an accredited facilitator, the rhythm and discussion elements are combined to cover six key learning areas of rhythm in life, relationships, harmony, identity, emotions and feelings, and teamwork. Each of the themed sessions includes drum activities that focus on a specific aspect of relationship issues. For example, the game "Pass the Rhythm", where a particular rhythm pattern is passed around the drum circle, accompanies discussions of teamwork and connection. The program concludes with a performance.

The DRUMBEAT program now has considerable reach, and continues to attract new facilitators and implementations. Ivery et al. (2009) evaluated the effectiveness of the DRUMBEAT program with adolescent students and showed a reduction in school absences and behavioural incidents, and an increase in pro-social behaviour and self-esteem for the students participating. Similar positive effects were documented in reports from health and community groups with older participants (Faulkner, 2012). In a DRUMBEAT program run for disadvantaged adolescents, improvements were identified for boys' mental wellbeing, psychological distress, post-traumatic stress symptoms and antisocial behaviour, although not for girls' (Martin & Wood, 2017). The extant evaluations describe positive effects of the program for community participants; however, there appears to exist only one evaluation for school students despite the large number of schools who run DRUMBEAT each year.

Given the relative dearth of school-based music SEL programs or interventions, along with knowledge that participation in music is associated with many benefits including academic achievement (Hallam, 2010) and emotional connection (StGeorge, Holbrook & Cantwell, 2014), it is

important to gauge the effectiveness of SEL-music programs in order to inform evidence-based practices. Therefore, in this current study, we aimed to measure the impact of a school-based delivery of DRUMBEAT on child and adolescent social-emotional wellbeing in order to evaluate the usefulness of the program for students in schools, and to better understand the implications of interest in music for program effects and ongoing wellbeing. The research questions for this evaluation were:

1. Does participation in DRUMBEAT increase student self-esteem, and reduce emotional and behavioural difficulties?
2. Are there differences in outcomes for boys and girls, and for younger and older children?
3. What is the association between interest in music and changes in self-esteem and emotional and behavioural difficulties?

METHOD

Participants

Participants were 75 students, 64% male, 59% of children were in Primary School[1] (age *M*=10.6 years, SD=1.1, range 8-12 years), the remainder in High School (age *M*=13.8 years, SD 1.3, range 12-16 years). Thirteen students (18%) were Indigenous, and all spoke English at home. Only one student dropped out from their DRUMBEAT program. The 75 students were participants in one of six DRUMBEAT programs, delivered by five facilitators (3 male, 2 female) across six schools in Victoria, New South Wales and Queensland, Australia. Two schools were located in the suburbs of large cities, while the remaining four schools were located in regional towns with populations of 7,000 to 42,000 people. The facilitators were required to have delivered the program at least twice in the last two years, and all had more than five years' experience.

Sampling method

Approval for the study was granted by the University Human Research Ethics Committee. To locate DRUMBEAT workshops to evaluate, DRUMBEAT facilitator contact details were retrieved from a publicly available database on the DRUMBEAT website, and invitations were emailed to facilitators in the eastern states of Australia (New South Wales, Victoria and Queensland). Facilitator inclusion criteria were 1) that DRUMBEAT occurs in a school setting and 2) that the facilitator had delivered the program at least twice in the last 2 years. Invitational emails were sent to 240 facilitators, approximately 50 emails bounced, with follow-up not producing current addresses. Approximately 50 facilitators responded, and following screening for inclusion criteria, 9 facilitators gave informed consent. Facilitators identified the schools where they were to implement DRUMBEAT, and permission was sought from school principals to conduct the research and invite students to participate. Invitation letters were sent to the families of students participating in DRUMBEAT, and students giving

[1] In Australia, Primary School (7 years from Kindergarten to Year 6) is equivalent to US Elementary, and High School is equivalent to US Middle and High (6 years from Year 7 to Year 12).

parents' informed consent and their own assent participated in the research. Non-participation in the research did not exclude students from participating in DRUMBEAT in their school; data was not collected from these students. Four facilitators did not complete the research; no data from the attritions was included.

Procedure

As part of the standing arrangement between schools and DRUMBEAT facilitators, DRUMBEAT programs took place in varying locations during 2014. During the first and final DRUMBEAT sessions, DRUMBEAT facilitators administered the study questionnaires to students. The teacher questionnaires were distributed to teachers by the school Principal, and these were also completed in the first and last weeks of the DRUMBEAT sessions.

Measures

Interest in Music Scale (student report) (Gold et al., 2012) is a 12-item measure designed for music therapy assessment and outcome research in mental health. Scores on this scale can range from 12 (no interest in music) to a maximum score of 48 (very strong interest in music). The authors demonstrated internal reliability (Cronbach's alpha 0.89 and 0.77), and test–retest reliability (1- and 3-month intra-class correlation coefficients (ICCs) ranging from 0.61 to 0.85).

The *Rosenberg Self Esteem Scale (student report)* (Rosenberg, 1965) is a ten-item scale that measures global self-worth using negative and positive statements. Items are answered using a 4-point Likert scale (from Strongly Agree to Strongly Disagree). Items concern the individual's perceived happiness, usefulness, and competence. Scores can range from 0 to 30. The scale has been widely used with youth populations, and is strongly correlated with other measures of self-esteem, such as the Single Item Self-Esteem Scale (Robins, Hendin & Trzesniewski, 2001). Previous studies have reported alpha reliabilities for the scale ranging from .72 to .88 (Gray-Little, Williams & Hancock, 1997).

Cantril's ladder–wellbeing (student-report) (Andrews & Robinson, 1991) is a single item measure of subjective wellbeing, and has been used with adolescents. Scores can range from zero to ten. In this study, it was used as an indicator of self-perceptions in addition to the Rosenberg Self-Esteem scale.

Strengths and Difficulties Questionnaire (SDQ; Goodman & Goodman, 2009) is a widely used measure in child mental health. The SDQ gives an indication of a child's emotional and behavioural functioning and is a validated screening questionnaire with reasonable internal consistency (Cronbach's alpha = 0.73) and retest stability (intraclass correlation, r= 0.85; (Goodman, 2001). The SDQ consists of 25 questions, divided into five subscales: hyperactivity, emotional problems, conduct problems, peer problems, a prosocial score, and a 'total problems' score. These scales are also the basis for 2 dimensions, internalising (emotional symptoms and peer problems scales), and externalising (conduct problems and hyperactivity scales). The Total Problems Score can range from 0 to 20, while the Externalising and Internalising Scores can each range from 0 to 10, with higher scores indicating more problems. These scales have demonstrated the potential to be more sensitive to

changes in non-clinical populations, such as the current school cohort. In this study, student and teacher[2] report data were collected.

The *Social Development Grid* is a measure developed by the DRUMBEAT program designers to assess students' psychosocial change. Class teachers who know the participants well are asked to rate behavioural changes at the end of the ten-week period across seven domains: relationships with peers; relationships with adults or teachers; emotional control; participation in group activities; self-esteem; concentration; and general mood. Response options are from one to ten with '1' a highly detrimental change, '5' indicating no change, and '10' a highly positive change. Scores can range from 7 to 70, with a score of 35 indicating no change.

Statistical Analyses

Data were analysed using SPSS, Version 21. Scale reliability in our sample was calculated using Cronbach's alpha. Linear mixed model analyses were used to compare the pre and post scores on each measure. Participant Gender (male/female) and School (Primary/High) were included as between-subjects factors and Time (pre/post) was included as a within-subjects factor. Linear mixed models were chosen for this analysis as they provide two major benefits over standard analyses of variance methods. Firstly, they enable the inclusion of participants as a random variable, meaning that individual variations between subjects are accounted for. Secondly, they allow all available data to contribute to the analysis when some data is missing at random (Verbeke & Molenberghs, 2000), which is common in longitudinal designs. The linear mixed models were fit with fixed effects for Time (Time 1 / Time 2), School (Primary / High), and Gender (Boy / Girl). As recommended by Seltman (2015), the 2x2x2 model was fit using an Identity Matrix. Participants were included in the model as a random effect and the Wald statistic indicated whether the inclusion of a random intercept was beneficial for the model.

RESULTS

Mean scores and standard deviations for each measure at each time point for both boys and girls in Primary and High School can be seen in Table 1. The Wald statistic associated with each linear mixed model is also displayed. Scale reliabilities in our sample were all high (range of $\alpha = .69$ to $\alpha = .93$). The Social Development Scale was not included in the linear mixed models as it was completed once only at the conclusion of the program. Scores on the seven social development domains ranged from 7.2 to 7.8, indicating positive change during the ten-week period for most students. Across all domains, teachers rated between 3% and 13% of students with no change. Using the total score, more than 93% of students were rated with some degree of positive change.

A 2x2x2 Linear Mixed Model was conducted on Interest in Music scores. The Wald statistic indicated that the inclusion of a random intercept was beneficial for this model. There were no significant main effects or interactions between any of the independent variables, suggesting that interest in music was not affected by the DRUMBEAT intervention.

[2] Teachers were class teachers who knew the participants well (N=10).

Measure	School	Time 1		Time 2		Wald *Z*
		Boys	Girls	Boys	Girls	
Interest in Music						
	Primary	39.7 (3.5)	39.0 (0.0)	38.3 (1.5)	36.0 (0.0)	3.02**
	High	32.8 (3.1)	35.8 (4.9)	33.5 (5.7)	34.9 (5.2)	
Cantril's Ladder						
	Primary	6.9 (1.8)	7.9 (1.6)	7.6 (1.4)	7.9 (1.2)	2.63**
	High	5.7 (2.3)	4.2 (1.9)	7.1 (1.8)	6.7 (1.7)	
Rosenberg Self-Esteem						
	Primary	19.6 (5.0)	23.8 (6.0)	21.7 (4.4)	24.3 (4.8)	3.00**
	High	16.2 (6.3)	15.4 (7.1)	19.8 (4.8)	15.6 (9.6)	
SDQ (Student)						
Total Problems	Primary	11.4 (4.7)	10.6 (5.2)	10.6 (4.1)	8.3 (4.6)	2.30*
	High	17.9 (4.9)	18.2 (8.1)	12.1 (6.7)	13.9 (9.4)	
Externalising	Primary	6.8 (3.1)	4.2 (2.7)	6.2 (3.0)	4.0 (1.9)	3.35**
	High	10.8 (4.0)	8.3 (5.5)	6.9 (3.1)	6.3 (5.4)	
Internalising	Primary	4.8 (2.5)	6.7 (4.2)	4.4 (3.2)	4.4 (3.4)	2.64**
	High	7.3 (2.8)	10.1 (3.3)	5.3 (4.0)	7.8 (4.6)	
SDQ (Teacher)						
Total Problems	Primary	10.8 (8.3)	5.5 (7.8)	12.5 (8.0)	6.3 (7.8)	4.54***
	High	15.3 (5.5)	20.5 (3.9)	15.8 (5.6)	13.8 (2.2)	
Externalising	Primary	6.7 (5.9)	2.8 (4.6)	7.5 (5.7)	2.7 (5.0)	4.55***
	High	8.2 (5.0)	7.3 (1.5)	7.5 (3.2)	5.6 (1.7)	
Internalising	Primary	4.4 (3.4)	3.3 (3.8)	4.9 (3.3)	3.7 (2.9)	4.62***
	High	7.4 (3.3)	10.5 (5.1)	5.8 (3.5)	5.7 (3.2)	
Social Development						
	Primary	-	-	52.7 (9.9)	60.7 (11.7)	-
	High	-	-	46.9 (4.8)	50.3 (5.6)	-

*p<.05 **p<.01 ***p<.001

Table 1: Descriptive statistics for each measure at each time point broken down by student gender and school and Wald statistic for each linear mixed model

A 2x2x2 Linear Mixed Model was conducted on Cantril's Ladder score. The Wald statistic indicated that the inclusion of a random intercept was advantageous for this model. There were significant main effects of both Time, $F(1,43.5)=7.03$, $p=.011$, and School, $F(1,58.7)=10.09$, $p=.002$, and a significant interaction between the two, $F(1,43.5)=6.19$, $p=.017$. Primary School students had higher wellbeing scores than High School students. There was no change in Primary School students' scores over Time, but High School students' scores were found to increase after their participation in DRUMBEAT. No other effects were significant.

A 2x2x2 Linear Mixed Model was conducted on Rosenberg's Self-Esteem scores. The Wald statistic indicated that the inclusion of a random intercept was beneficial for this model. There was a significant main effect of Time, $F(1,68.7)=5.97$, $p=.017$. Scores on the self-esteem scale increased after participation in the DRUMBEAT program. The main effect of School was also significant, $F(1,72.7)=20.25$, $p<.001$. Primary School students had higher levels of self-esteem than High School students. The interaction between Gender and School was also significant, $F(1,72.7)=4.36$, $p=.040$, indicating that there was a larger difference between Primary School and High School girls' self-esteem, than there was between Primary and High School boys. No other effects reached significance.

Three separate 2x2x2 Linear Mixed Models were performed on Student Reported SDQ Total Problems, Externalising, and Internalising scores. The Wald statistic indicated that the inclusion of a random intercept was beneficial for these models. For Total Problems scores, there were significant main effects of Time, $F(1,66.3)=16.16$, $p<.001$, and School, $F(1,68.7)=5.97$, $p=.017$ and the interaction between Time and School was also significant, $F(1,66.3)=5.16$, $p=.026$. Primary School students reported fewer Total Problems than High School students at both Time 1 and Time 2. There was a larger decrease in Total Problems scores following involvement in DRUMBEAT for High School students compared to Primary School students. On Externalising scores, there were also significant main effects of Time, $F(1,66.2)=11.81$, $p=.001$, School, $F(1,71.9)=9.65$, $p=.003$, and Gender, $F(1,71.9)=6.56$, $p=.013$. Student Reported SDQ Externalising scores decreased following participation in DRUMBEAT, were lower for girls than boys, and were lower in Primary compared to High School students. The interaction between Time and School was also significant, $F(1,66.2)=9.01$, $p=.004$. There was a larger decrease in Externalising scores from Time 1 to Time 2 for High School students than for Primary School students. For Internalising scores, there was a significant decrease in scores from Time 1 to Time 2, $F(1,68.4)=16.23$, $p<.001$. Boys reported significantly fewer Internalising problems than girls, $F(1,73.3)=7.93$, $p=.006$, and Primary School students reported fewer problems than High School students, $F(1,73.3)=13.04$, $p=.001$. No other effects were significant.

A series of three 2x2x2 Linear Mixed Models were conducted on Teacher Reported SDQ Total Problems, Externalising, and Internalising scores. The Wald statistic indicated that the inclusion of a random intercept was beneficial for these models. There was a significant main effect of School, $F(1,83.4)=8.65$, $p=.004$, with teachers reporting fewer Total Problems in Primary School compared to High School. There was also a significant interaction between School and Time, $F(1,48.1)=7.90$, $p=.007$. Teacher Reported Total Problem scores increased from Time 1 to Time 2 for Primary School students, but decreased for High School students. The interaction between Gender and Time was also significant, $F(1,48.1)=5.93$, $p=.019$. Teacher Reported Total Problem scores increased slightly from Time 1 to Time 2 for boys, but decreased for girls. Finally, the interaction between Gender and School was significant for Total Problems scores, $F(1,83.4)=4.46$, $p=.038$, with a larger difference in scores for

Primary and High School girls compared to boys. For Externalising scores, there was a significant main effect of Gender, $F(1,84.2)=7.13$, $p=.009$, with Teachers reporting fewer Externalising Problems for girls compared to boys. For Internalising scores, there was a significant main effect of Time, $F(1,60.6)=15.09$, $p<.001$, with scores decreasing from Time 1 to Time 2. The main effect of School was also significant, $F(1,71.5)=16.80$, $p<.001$, with Teachers reporting fewer Internalising Problems in Primary School compared to High School. There was a significant interaction between School and Time, $F(1,60.6)=25.2$, $p<.001$. Teacher Reported Internalising Problem scores increased from Time 1 to Time 2 for Primary School students, but decreased for High School students. The interaction between Gender and Time was also significant, $F(1,60.6)=6.49$, $p=.013$. Teacher Reported Internalising Problem scores decreased slightly from Time 1 to Time 2 for boys, but showed a larger decrease for girls. No other main effects or interactions were significant.

DISCUSSION

This study aimed to examine the effect of the social-emotional learning program DRUMBEAT on young people in school in three eastern states of Australia. The program targets young people's social and emotional attitudes and beliefs, and through rhythm, collaboration and discussion, gives young people the opportunity to reflect on, engage with and experience a range of emotional and social challenges. Previous evaluations of the program show that DRUMBEAT is successful in raising students' self-esteem and improving social behaviour; this study adds to those evaluations by providing between-group analyses to show who benefits most from DRUMBEAT, and which aspects of social and emotional skills are most impacted by the program. The results revealed that all students benefited: primary and high school, males and females. Specific differences are discussed below.

Students improved in their self-esteem, and in their own ratings of internalising, externalising and total problem behaviours. Teachers also observed improvements in students' internalising behaviours. These results suggest that DRUMBEAT had a positive effect on students' self-perceptions, consistent with previous evaluations of the program that show improvements in self-esteem (Ivery et al., 2009). Self-esteem is found to be causal to broad lifespan outcomes such as physical health and job satisfaction (Butler & Gasson, 2005; Orth & Robins, 2014) and psychopathologies (Cohen et al., 2016). However, the findings that students experience not only improvements in their self-worth but also feel more emotionally stable and behaviourally self-controlled, points to a holistic effect of the program on the participants. These results are consistent with other evaluations of social-emotional learning interventions that show students' self-reported improvements (Cramer & Castro-Olivo, 2016), as well as with the social-emotional learning goal of self-awareness articulated by CASEL (2012).

Of further interest is that children's enhanced self-perceptions appeared in the relative absence of teachers' reports of behavioural change, as there was only one main effect of time on teachers' reports on student behaviour (internalising scores decreased overall). However, teachers did rate a change in 93% of the sample's social behaviour through the Social Development Scale. Possibly, children feel that they are more stable before they actually act that way or before it is noticed by others. Theories of learning generally posit that internal attitudes and beliefs are precursors to behavioural change (e.g., the Reasoned Action Approach, Fishbein & Ajzen, 2011). It may be that participating in DRUMBEAT catalyses personal internal growth that could be built on with further interventions to

facilitate behavioural responses to the internal change. Longitudinal studies could also demonstrate this developmental change process and enhance confidence in the intervention's effectiveness.

Some of the intervention outcomes also highlighted differences for gender and school level. For example, the measure of subjective wellbeing (which correlated with self-esteem, r=.65, p<.001) significantly changed only for High School students. Although Primary School students' overall ratings were significantly higher than the High School students', it is possible that this global construct was too difficult for the primary students (M^{age}=10 years) to finely judge. This may be a reasonable explanation given that abstract reasoning is a phenomenon related to the 'formal operational' stage of children's cognitive development, which occurs during the early teens (Ferrer et al., 2013).

The interactions demonstrate that there was a greater change (decrease) in student-reported externalising and total problems by High School students than by Primary School students. This difference may be an artefact of the higher prevalence of problems in the older students, who therefore have a greater margin for improvement. The difference could alternatively be explained as a more comprehensive learning of the concepts by the older students, who then more effectively internalise and self-regulate.

Teacher-reported total and internalising problems increased for primary students, whereas they decreased for high school students, they also showed a larger reduction in girls. The year level and gender means and differences mirror the generally higher levels of problem behaviours in older boys and internalising behaviours in older girls, as found in the population more generally (Klostermann, Connell & Stormshak, 2016). An interesting contrast was the increase in teacher-reported total and internalising problems in Primary School. This concords with the normative developmental increase of internalising behaviours during childhood (Bongers, Koot, Van der Ende et al., 2003). In addition, given the practice of selecting 'at-risk' students for participation in DRUMBEAT, the family and parenting environment of this sample may be influencing the increase over and above the intervention effects. These background factors were not accounted for in the current study, yet are important covariates to consider in the future.

The discrepancies between student and teacher report give important alternative lenses on students' behaviours. Other researchers have found differences between teacher and student ratings, with teachers rating students differently than students rate themselves (Ruchkin et al., 2012). Generally, inter-informant correlations tend to be low (Achenbach, McConaughy & Howell, 1987) and in this study, SDQ student-teacher correlations ranged from .19-.58, average r=.39, higher at pre-test than post-test. However, the differences highlight different perceptions of functioning, and may also reflect different contexts of functioning (Kuppens et al., 2009). As Verhulst and Ende (1992, p. 1011) argue, adolescents are "indispensable informants on their own problem behaviors"; these variations may help practitioners target their interventions at particular aspects of social emotional regulation, as well as underscoring the principle of aligning assessment tools to program goals.

Some limitations to this study are that no evaluation of the implementation of DRUMBEAT was included, therefore we cannot say how fidelity and dose may have varied across the participating schools. As practitioners need reliable evidence bases for their programs, and to understand how personal factors can influence effectiveness (Robb, Burns & Carpenter, 2011), this will be important to include in future studies. Furthermore, the study design did not include a control group, which constrains confidence in ascribing change to the intervention. The capacity to include a control group

was limited to an extent by school resources and by the schools' varying selection procedures for participation in DRUMBEAT. Finally, there was no measure of participating children's family environment, which likely affects their potential for behaviour change (Bongers et al., 2003).

This study adds to an understanding of the effects of DRUMBEAT, and builds on the recommendations of Ivery et al. (2009) to investigate differences by age and gender. A strength of the study was that despite the heterogeneity of location, facilitators and implementation, the ten-week program was associated with an increase in students' perceptions of self-esteem, as well as their social and emotional functioning. These changes were also observed by teachers in the children's classroom settings. Even though boys and girls of different ages have different normative levels of self-esteem, and internalising and externalising behaviours, the program goals targeted and successfully facilitated change for the whole cohort. More broadly, the study shows the effectiveness of a music-based program that incorporates social-emotional learning into creative and collaborative group-work; as others have found (e.g., Bittman et al., 2001), group drumming that includes facilitated discussion and reflection can be more effective than drumming only.

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Ελληνική περίληψη | Greek abstract

Κοινωνικο-συναισθηματική μάθηση μέσω μιας παρέμβασης με χρήση κρουστών οργάνων

Jennifer StGeorge | Emily Freeman

ΠΕΡΙΛΗΨΗ

Η ανάπτυξη της κοινωνικής και συναισθηματικής ικανότητας θεωρείται αναπτυξιακός στόχος της παιδικής και εφηβικής ηλικίας. Παρόλο που η πρώιμη φροντίδα και το οικογενειακό περιβάλλον είναι καίριας σημασίας για την ευημερία και την αναπτυξιακή πορεία των παιδιών, οι παρεμβάσεις κοινωνικο-συναισθηματικής μάθησης [social-emotional learning – SEL] δύνανται να μειώσουν την ευαλωτότητα των νέων ως προς την εσωτερίκευση και εξωτερίκευση προβληματικών συμπεριφορών εάν οικογενειακοί ή περιβαλλοντικοί παράγοντες παρουσιάζουν κάποιο κίνδυνο. Ο σκοπός αυτής της μελέτης ήταν να αξιολογήσει τον αντίκτυπο του προγράμματος κοινωνικο-συναισθηματικής μάθησης DRUMBEAT (Discovering Relationships Using Music, Beliefs, Emotions, Attitudes and Thoughts – Ανακαλύπτοντας Σχέσεις Χρησιμοποιώντας Μουσική, Πεποιθήσεις, Συναισθήματα, Στάσεις και Σκέψεις), μια παρέμβαση δέκα εβδομάδων σε σχολικό πλαίσιο. Οι μαθητές που έλαβαν μέρος στο πρόγραμμα DRUMBEAT (N = 75, 64% γένους αρσενικού, 59% μαθητές του Δημοτικού, 18% γηγενείς) σε έξι σχολεία της Αυστραλίας, και οι εκπαιδευτικοί τους, συμπλήρωσαν ένα εργαλείο Αυτοεκτίμησης και το Ερωτηματολόγιο Δυνατοτήτων και Δυσκολιών [Strengths and Difficulties Questionnaire] πριν και μετά την παρέμβαση. Οι αναλύσεις γραμμικού μικτού μοντέλου έδειξαν ότι σημειώθηκαν σημαντικές βελτιώσεις στην αυτοεκτίμηση των μαθητών, καθώς και στην εσωτερίκευση και την εξωτερίκευση συμπεριφορών, όπως ανέφεραν μαθητές και εκπαιδευτικοί. Η ομάδα κρουστών έχει τη δυνατότητα να προσελκύσει τους νέους σε ένα εκπαιδευτικό περιβάλλον όπου ο ρυθμός, η συνεργασία και η συζήτηση μπορούν να ενισχύσουν την κατανόηση ενδοπροσωπικών και διαπροσωπικών διαδικασιών.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ

κοινωνική συμπεριφορά, συναισθηματική ρύθμιση, παρέμβαση, μαθητές, έφηβοι, παρέμβαση με κρουστά όργανα

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ARTICLE

Music interventions and pain: An integrative review and analysis of recent literature

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ABSTRACT

Music interventions offer a low-cost, low-risk adjuvant to traditional therapies. However, scarce physiological evidence exists to explain how music relieves pain. In this integrative review, we provide a summary of results in the recent literature regarding music-induced analgesia and provide a critical analysis of methodological patterns. We then describe the need for robust theoretical explanations that could account for the observed effects of music on pain. We completed a broad electronic search using common search engines to identify recent experiments and literature reviews that represented the current understanding of potential causal relationships between music and pain. Thirty-one articles were synthesised in this review – 23 were individual experiments and eight were literature reviews. The results show that music-induced analgesia is a consistently observable phenomenon in clinical settings, although a minority of articles report inconclusive results. The magnitude of pain relief is small to modest and results become less conclusive when derived from indirect measures of pain. Limitations of the recent literature revolve around operational definitions of pain, varieties of pain examined within articles, over-reliance on self-reporting scales, rigour in demographic reporting, diversity and size of samples and weak experimental designs. Theoretical explanations for the effect of music on pain are varied but undeveloped and lacking in physiological evidence. We conclude that music-induced analgesia is a persistently observable phenomenon. To advance the field of study, more rigorous methodological practices need to be applied and more attention needs to be focused on finding underlying physiological mechanisms for the relationships between music and pain.

KEYWORDS

music interventions,
music therapy,
pain,
pain management,
music-induced analgesia,
alternative therapies

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INTRODUCTION

Pain is a widespread problem but difficult to treat. Surgeries are often needlessly invasive, medications often have dangerous side effects or risk of addiction and physical therapies are often time-intensive. Music interventions1 offer a low-cost, low-risk adjuvant to traditional therapies (Good et al., 2002). Encouragingly, music-induced analgesia has consistently been observed in music intervention studies (American Music Therapy Association, 2010). However, scarce physiological evidence exists to explain how music relieves pain. Furthermore, persistent methodological shortcomings undermine the results of music intervention studies (e.g., Zeller, Good, Anderson & Zeller, 1997) and many unresolved questions remain about what types of music interventions achieve optimal therapeutic goals (Engwall & Duppils, 2009).

Previous reviews have largely emphasised the aggregation of studies to inform clinical practices rather than advance theory about how music relieves pain (Klassen et al., 2008). This integrative review provides a brief analysis of the methodological characteristics and aggregates results of recent articles published from 2006 to 2016 but its broader purpose is to make recommendations for future research that could inform theoretical explanations of music-induced analgesia. The review of results and methodological characteristics included in this paper serves as context for discussing the theoretical mechanisms that have been proposed in the literature. The objective of this integrative review, in accordance with the general aim of integrative literature reviews, is "[…] to create a consistent and comprehensive panorama of complex concepts" (De Souza, da Silva & de Carvalho, 2010, p. 103) involved in the study of the effects of music on pain (see also Hanson-Abromeit & Moore, 2014). First, we will summarise evidence for music-induced analgesia as evinced through measures such as self-report scales, physiological measures and medication usage. In the discussion section, we briefly describe common methodological inconsistencies and weaknesses observed in the literature. In doing so, we highlight difficulties of defining and measuring pain, controversies about the optimal structure of music interventions, problematic aspects of experimental designs and the lack of physiological evidence in the literature. We conclude by offering suggestions for future research and describing a need for robust theoretical frameworks that could explain music's effects on pain.

METHOD

De Souza, da Silva and de Carvalho (2010, p. 103) suggest that an "integrative review is the most comprehensive methodological approach of reviews", while Hanson-Abrameit and Moore (2014, p. 9) state that integrative reviews are undertaken for "directing future research by summarising current knowledge and highlighting gaps in knowledge". We conducted an electronic search of the literature in the autumn of 2016 using the following research search engines: Academic Search Premier, RILM Abstracts of Music Literature, Google Scholar, PsychInfo, Medline, Psychlit; to identify recent experiments and literature reviews that represented the most current understanding of the relationship

[1] For the purposes of our review, 'music intervention' refers to any use of music in clinical or experimental settings to achieve therapeutic goals (such as music-induced analgesia). We use 'music intervention' to encompass the many uses of music present in the literature, such as passive listening sessions, active participation in live music-making and sessions with or without the facilitation of a trained music therapist.

between music and pain. Rather than producing an exhaustive catalogue of the extant research in this area, our goal was to provide a summary of the recent literature regarding the potential causal effects of music on pain. As such, our inclusion criteria consisted of true and quasi experiments as well as literature reviews published in English between the years 2006 and 2016. We used the following search terms: music, music therapy, music listening, pain, analgesia, analgesic, ache, fibromyalgia, opioid, intervention, random controlled trial and experiment.

There were no limitations imposed on the search regarding theoretical frameworks, types of pain studied, sample characteristics, intervention approaches, or dependent measures. We found that 2006 was a reasonable starting year to find a representative sampling of papers without being overly redundant with similar existing literature reviews. Following De Souza, da Silva and de Carvalho's (2010) recommendation, we examined both original empirical studies as well as literature reviews. We also examined empirical studies that represented a range of methodological rigour and strength. For each empirical study, we extracted information pertaining to the theoretical framework, sample size, study design, pain experienced / reported by participants, type of musical stimuli used, dependent measure(s) and a general summary of the findings regarding the positive effects of music on pain (i.e., null, mixed, significant). Summaries of the data extracted can be found in the Appendix as well as Tables 1, 2, and 3.

FINDINGS

Ultimately, we examined 23 empirical studies published between 2006 and 2016. The majority (thirteen) of the empirical studies we found were conducted in hospitals rather than in laboratory settings and were designed to inform clinical practices. The most common experimental design was a randomised controlled trial, engaging adults in passive music listening experience2 as they underwent or recovered from surgical procedures. However, six of the empirical studies that were identified focused on patients with chronic pain, and four empirical studies utilised laboratory stimuli such as noxious heat or cold pressors. One study (Dobek, Beynon, Bosman & Stroman, 2014) investigated the effects of noxious pain in laboratory conditions that included functional MRI imaging as a dependent measure. In addition to the 23 empirical studies, we also considered eight previous literature reviews to aid in our analysis of methodological trends and theoretical frameworks.

The 31 articles explore music's effects on pain, although many also include research about music and psychological/behavioural variables such as depression or functional mobility. This review focuses solely on findings about pain, given our purposes and that the primary objective of most of the research we reviewed was to demonstrate music-induced analgesia. Table 1 summarises the prevalence of significant, mixed, and null effects of music on pain as measured by patient self-reports, physiological measurements, and medication usage (see Table 1).

[2] 'Passive' here indicates that the participants were left to listen to pre-recorded music without involvement of a music therapist during or surrounding the listening session.

Outcome category	Significant	Null	Mixed
Pain	18	3	10
Physiological measurements	2	2	4
Decrease in medication usage	0	2	2
Efficacy of researcher-selected vs. participant-selected music	2	1	0
Efficacy of active vs. passive music interventions	0	2	0

Table 1: Counts of articles in the current review that concluded significant, null, or mixed results pertaining to the positive effect of music according to outcome category

Self-reported measures of pain

All empirical studies included in this review asked participants about pain levels using self-reporting measures such as the Visual Analog Scale (Crichton 2001) or the McGill Pain Questionnaire (Melzack 1975). Out of the 23 empirical studies included, eighteen used more than one self-reporting measure. Table 2 summarises the wide array of self-report scales found in the empirical studies and literature reviews included in this integrative review.

Of the 23 empirical studies in this review, 65% (15) concluded that participants in music intervention groups reported significant decreases in pain. Huang, Good and Zauszniewski's (2010) study serves as a good example of an experiment demonstrating results with self-reporting scales as the dependent measure. The authors conducted a randomised controlled trial examining the effects of passive music listening on the pain of 126 cancer patients in Taiwanese hospitals. Participants were assigned to either a control group or experimental group in which they were asked to complete 30-minute listening sessions, choosing music from a researcher-supplied selection of Taiwanese and American music. All music selections provided by the researchers were at a tempo of 60 to 80 beats per measure and did not contain lyrics. Participants in the experimental group completed Visual Analog Scales (VAS) before and after listening sessions to measure pain and emotional distress. In the control group, participants completed the VAS before and after 30-minute intervals of usual daily activities. Huang, Good and Zauszniewski's (2010) results showed significant reductions in reported pain for the music intervention group. In the control group, 8% of participants reported pain relief at or exceeding 50%. In the music intervention groups, 42% of participants reported pain relief at or exceeding 50%. On average, experimental participants reported pain 1.5 units lower on the VAS than control participants.

However, not all studies demonstrated such clear and consistent results from patient self-reports. Of the 23 empirical studies included in this review, 22% (5) published mixed results from self-reports of pain. For example, two reported significant decreases in short-term pain, but not long-term pain (Vaajoki et al., 2012; Finlay, 2014). One of the five with mixed results only found significant reductions in pain on two of three self-reporting scales used in the study (Gutgsell et al., 2013). The last two with mixed results found significant decreases in pain among participants from one demographic group but not others. In Mitchell and Hons (2006), female participants reported

Categories of measures	Title of measure	Description of measure	Studies using the measure
Measures of pain	Visual Analog Scale (VAS)	Horizontal line (usually 100 mm in length) with word descriptors anchoring each end (e.g., 'no pain' and 'worst pain'). Participant marks on the line the place that reflects their current pain level. Numerical score is determined by number of millimetres from left point of line to the participant's mark (Crichton, 2001).	Alam et al. (2016); Allred, Byers & Sole (2010); Engwall & Duppils (2009); Finlay (2014); Good, Ahn & Payne (2008); Guetín et al. (2016); Guetín et al. (2012); Hsieh et al. (2014); Huang, Good & Zauszniewski (2010); Korhan et al. (2014); Lee (2016); Linneman et al. (2015); Man et al. (2015); Mercadíe, Mick, Guetin & Bigand (2015); Mitchell, MacDonald & Knussen (2008); Mitchell & Hons (2006); Mitchell, Macdonald & Brodie (2006); Siedliecki & Good (2006); Tam, Lo & Hui (2016); Vaajoki, Pietila, Kankkunen & Vehvilainen-Julkunen (2012) Total: 20
	McGill Pain Questionnaire (MPQ)	Numerical ratings in response to questions in three sections: "What does your pain feel like?"' "How does your pain change with time?" and "How strong is your pain?" (Melzack, 1975).	Allred, Byers & Sole (2010); Finlay (2014); Lee (2016); Mitchell, MacDonald, Knussen & Serpell (2007); Mitchell, MacDonald & Knussen. (2008); Mitchell & Hons (2006); Mitchell, Macdonald & Brodie (2006); Siedliecki & Good (2006) Total: 8
	Numeric Rating Scale (NRS)	Participant selects an integer (usually between zero and ten) that best reflects their pain intensity. Commonly placed on a horizontal line or anchored with verbal descriptions such as 'no pain' or 'worst pain' (Hawker, Mian, Kendzerska & French, 2011).	Bradt et al. (2016); Dobek et al. (2014); Engwall & Duppils (2009); Finlay (2014); Gutgsell et al. (2013); Lee (2016) Total: 6
	Faces Scale (FS)	Participant chooses a drawing of a face that best represents their pain intensity (Wong & Baker, 1988).	Engwall & Duppils (2009); Liu & Petrini (2015); Yu, Liu, Li & Ma (2009) Total: 3
	Likert Scale	Participant selects response from one of 5 to 7 pre-coded answers in linear succession of intensity (for example "strongly agree, agree, undecided, disagree, strongly disagree") (Likert, 1932).	Fredenberg & Silverman (2014); Linneman et al. (2015) (perceived control over pain) Total: 2
	Functional Pain Scale	Participant selects numbers to represent intensity of pain sensations, activity levels, mobility, and other functions (Gloth et al., 2001).	Gutgsell et al. (2013); Lee (2016) Total: 2
	Face, Legs, Activity, Cry, Consolability Scale	Assigns numbers to behavioural signs of pain in five categories such as 0 = 'no particular expression' 1 = 'occasional grimace' and 2 = 'frequent clenched jaw' in the 'Face' category (Voepel-Lewis et al., 2002).	Gutgsell et al. (2013); Lee (2016) Total: 2

	WHO Quality of Life Scale	Participant chooses numerical ratings about pain, mobility, personal and environmental health, social ties, etc. (WHO, 2004).	Mitchell et al. (2007) Total: 1
	Children's Hospital of Eastern Ontario Scale (CHEOPS)	Observation scale for measuring pain in children ages one to seven. The scale includes six categories of pain behaviours, each of which has three or four numerical grades of intensity (Hesselgard et al., 2007).	Lee (2016); Yu et al. (2009) Total: 2
Measures other than pain	Visual Analog Scale (VAS)	See above but applied to anxiety, distress, fatigue, and satisfaction.	Allred et al. (2010) (anxiety); Good, Ahn & Payne (2008) (distress of pain); Guetín et al. (2016) (satisfaction); Mercadíe, Mick, Guetin & Bigand (2015) (fatigue); Tam, Lo & Hui (2016) (anxiety) Total: 5
	State-Trait Anxiety Index (STAI)	Participants select numerical ratings with verbal descriptions (such as "almost never" or "almost always") in response to statements such as "I feel tense" or "I am a steady person" (Spielberger et al., 1983).	Alam et al. (2016); Engwall & Duppils (2009); Garza-Villarreal et al. (2014); Liu & Petrini (2015) Total: 4
	Hospital Anxiety and Depression Scale (HADS)	Participants select numerical ratings with verbal descriptions (such as "not at all" or "very definitely and quite badly") in response to statements such as "I get a sort of frightened feeling as if something awful is about to happen" or "I have lost interest in my appearance" (Zigmund & Snaith, 1983).	Bradt et al. (2016); Finlay (2014); Guetín et al. (2012) Total: 3
	Likert Scale	See above but applied to stress.	Linneman et al. (2015) Total: 1
	Center for Epidemiology Studies Depression Scale	Scale asks if "during the past week" participant has felt conditions such as "I had crying spells" or "I felt that people disliked me" from "rarely" to "most of the time" (Radloff, 1977).	Garza-Villarreal et al. (2014); Siedliecki & Good (2006) Total: 2
	Numerical Rating Scale	See above but applied to anxiety.	Guetín et al. (2016) (anxiety) Total: 1
	Patient Global Impression of Change Scale (PGIC)	Participant rates on scale from 1-7 perceived change in activity limitations, symptoms, emotions, and overall quality of life (Busner & Targum, 2007).	Bradt et al. (2016) Total: 1
	Positive and Negative Affect Scale	Participants rate feelings of positive affect ("enthusiastic, active, and alert") and negative affect ("sadness and lethargy") (Watson & Clark, 1988).	Fredenberg & Silverman (2014) Total: 1
	Expectancy of Relief Scale	Description unavailable.	Hsieh et al. (2014) Total: 1
	WHO Quality of Life Scale	See above.	Mitchell et al. (2007) Total: 1

Power as Knowing Participation in Change Tool (version II)	A 52-question profile that asks about awareness, choices, freedom to act intentionally, and involvement in change (Barrett 2009).	Siedliecki & Good (2006) Total: 1
Modified Yale Preoperative Anxiety Scale for children (mYPAS)	A 4-item assessment tool for children's anxiety in perioperative settings (Jenkins, 2014).	Yu et al. (2009) Total: 1
Pain Catastrophizing Scale (PCS)	Participant selects answers on numerical scales measuring "ruminating, magnification, and helplessness" (Sullivan, Bishop & Pivik, 1995).	Garza-Villarreal et al. (2014) Total: 1
Interference Scale	Description unavailable.	Bradt et al. (2016) Total: 1
General Activities Scale of the Westhaven-Yale Multidimensional Pain Inventory (MPI)	Tailored to assess psychological and behavioural manifestations of chronic pain (Kerns, Turk & Rudy, 1985).	Bradt et al. (2016) Total: 1
Timed Up and Go Task	Patients are seated comfortably in a chair, then asked to get up at the sound of the word "go" and walk three meters, turn, walk back, and sit down (Podisadlo & Richardson, 1991).	Garza-Villarreal et al. (2014) Total: 1
Pain Disability Index	Numerical rating scales to determine the extent chronic pain interferes with daily activities.	Siedliecki & Good (2006) Total: 1

Table 2: Summary of self-reporting scales found in the literature

significant decreases in pain but males did not and in Siedliecki and Good (2006) European-American participants reported pain relief reaching statistical significance but African-American participants did not. It is worth noting that the five aforementioned empirical studies still concluded that music interventions could be beneficial for pain under certain conditions.

Around 13% of empirical studies included in this review (3) attained null results from patient self-reports during music interventions for pain. For example, a descriptive study by Linneman et al. (2015) examined the relationship between daily music listening and pain among fibromyalgia patients. Researchers asked the participants to listen to music as they normally would in their daily lives and had them fill out a VAS for pain intensity five times daily for 14 days. There were no associations demonstrated between music listening and perceived pain intensity as reported through the VAS.

In summary, a majority of the 23 empirical studies included in this review published significant decreases in participant pain using self-reporting scales. However, a minority contained mixed results and a handful reported only null findings. Effect sizes were generally small to moderate, especially when sample sizes were also small. However, the effect sizes in the study by Huang, Good and

Zauszniewski (2010) were relatively large even amongst the 65% of empirical studies with significant results, perhaps because the sample size of n = 126 was also larger than average.

The eight literature reviews we consulted described similar trends. Only two literature reviews concluded that their sampled studies demonstrated consistent, significant decreases in pain during or after music interventions (Clements-Cortés, 2016; Tam, Lo & Hui, 2016). The remaining six reviews expressed cautious optimism that music interventions are an effective pain management tool but included caveats about the persistent presence of inconclusive results in the literature. For example, Bernatzky, Presch, Anderson and Panksepp (2011) reviewed 15 randomised controlled trials examining music and post-operative pain in adults. The authors asserted that these studies demonstrated "consistent positive trends" but that there were instances of studies with inconclusive results (Bernatzky et al., 2011, p. 1992). Furthermore, the authors noted that the effect size of music interventions on self-reported pain was moderate or small in many of the trials.

A 2009 literature review by Engwall and Duppils reached similar conclusions. The authors synthesised the findings of 14 randomised controlled trials (RCTs) and four quasi-experimental studies of the effects of music on post-operative pain in adults. The authors found that 15 of the 18 studies showed robust evidence of music-induced analgesia. Overall, Engwall and Duppils (2009, p. 382) concluded that music "seems to have a beneficial effect on post-operative pain," but noted that the range of surgeries in the studies was quite broad and that such a lack of control could be problematic when attempting to generalise these effects.

The synthesis provided by Klassen et al. (2008) also depicts a mixed picture. These authors reviewed 19 randomised controlled trials with children undergoing medical and dental procedures. Only nine studies significantly favoured music intervention groups over control groups, and an additional two studies favoured "passive" but not "active" music interventions.[3] The authors write, "our results show that music is effective in reducing anxiety and pain during clinical procedures in children and youth", but they also note the substantial heterogeneity of medical procedures and the fact that the results "do not definitively indicate for which procedures music therapy will be most beneficial" (Klassen et al., 2008, p. 126).

The eight literature reviews and 23 empirical studies included in this integrative review provide extensive documentation of music-induced analgesia through self-reporting scales but the prevalence of mixed and null results gave many researchers pause. The following sections summarise findings about music-induced analgesia from physiological measures and monitoring medication usage.

Physiological measures of pain

Only six out of the 23 empirical studies in our review measured physiological response during music interventions for pain. The type of physiological data collected varied from study to study. Vital signs (e.g., mean arterial pressure, oxygen saturation, heart rate, and respiratory rate) were the most common physiological measures (Alam et al., 2016; Allred, Byers & Sole, 2010; Liu & Petrini, 2015; Yu

[3] According to Klassen et al. (2008, p. 118): "Studies were classified as using active MT [music therapy] if a music therapist was involved and the therapeutic sessions included interactive communication using music as a medium. Passive MT was defined as listening to music—whether recorded or live—without the involvement of a music therapist".

et al., 2009). However, vital signs are only an indirect measure of pain and stress levels, as Allred, Byers and Sole (2010, p. 16) write: "Pain causes stress, which in turn causes the cardiovascular system to respond by activating the sympathetic nervous system, resulting in increased heart rate, blood pressure, and oxygen demand". Linneman et al. (2015) also took samples of participants' salivary cortisol and alpha-amylase as indications of stress. In contrast, one study (Dobek et al., 2014) looked for direct evidence of pain relief by taking fMRI images of the brain, brain stem, and spinal cord. These images captured blood oxygenation level dependent (BOLD) response changes in areas known to be involved in descending analgesic pathways.

Only the study involving fMRI images (Dobek et al., 2014) reported physiological results that were statistically significant and indicated reductions in pain for participants in music intervention groups. Three empirical studies (all involving vital signs) reported mixed results: Allred, Byers, and Sole (2010), Liu and Petrini (2015), and Yu et al. (2009) reported statistically significant improvements to some but not all the vital signs measured. Two empirical studies, one taking vital signs (Alam et al., 2016) and the other taking saliva samples (Linneman et al., 2015), reported only null results.

Only three of the eight literature reviews we surveyed included substantial discussion of physiological data collection (Clements-Cortés, 2016; Lee, 2016; Tam, Lo & Hui, 2016). All three reviews reported that only some of its included studies included physiological measurements and showed improvements in these measurements. Given the trends in both the individual empirical studies and the literature reviews, we conclude that very few researchers included these types of measures in their studies, and the results were often inconclusive among the studies of those who did gather physiological data in an effort to searching for biological evidence of pain or stress relief.

Medication usage

Only three empirical studies (13%) in our review reported data about participant medication usage (Allred et al., 2010; Guétin et al., 2012; Liu & Petrini, 2015). None of the empirical studies found statistically significant reductions in analgesic medication usage during or after music interventions. Guétin et al. (2012) measured participant use of analgesic, antidepressant and anxiolytic medications but found significant decreases only in the use of anxiolytics. Two other individual empirical studies (Allred et al., 2010; Liu & Petrini, 2015) measured participant use of pain medications, but found no statistically significant changes during or after music interventions. Given that most of the empirical studies we reviewed were conducted in clinical settings, data about participant medication usage was probably available to many more than the three empirical studies in our sample. However, most researchers did not include medication usage as a measurement of pain relief.

The eight literature reviews we consulted also lacked information about medication usage during music interventions. Only two reviews (Engwall & Duppils, 2009; Lee, 2016) included studies that measured patient use of analgesic medications. Engwall and Duppils's (2009) literature review included 18 studies, but only 11 of those studies reported data about patient use of opioid medications. Five of these 11 studies (around 45%) reported statistically significant decreases in patient use of opioids in music intervention groups. A 2016 literature review by Lee included seven studies that reported data about the use of anaesthetics, 23 studies that reported on opioid usage, three studies that measured use of non-opioid analgesics, and seven studies that reported data on the

use of sedatives. Lee (2016) found that on average the studies reported statistically significant decreases in use of analgesic medications, with sedatives being the only exception. However, the effect size for opioid medications was small, and the effect size for anaesthetics and non-opioid analgesics was moderate at most.

Summary of findings

In summary, this body of research demonstrates that music-induced analgesia is a consistently observable phenomenon in clinical settings. Decreases in self-reports of pain are the most robust trend to emerge from the research but there is still a sizeable minority of articles that reported inconclusive results. The magnitude of pain relief is also worth noting – in many articles, the self-reported decreases in pain reached statistical significance but were still modest. Furthermore, the results become far less conclusive when derived from indirect measures of pain, such as vital signs or use of medication, rather than self-reporting scales. Although most authors of the articles concluded that music interventions produce pain relief, questions remain about why results continue to be mixed.

DISCUSSION

Critical analysis of methodological approaches

The following section consists of an analysis of methodological inconsistencies and weaknesses observed in the recent literature. First, we will discuss the difficulty of defining and measuring pain. Next, we will discuss controversies in the recent literature about best practices when structuring music interventions. Finally, we highlight concerns about trends in experimental design (e.g., small sample sizes, lack of randomisation, threats to internal and external validity).

Defining and measuring pain

Defining and measuring pain is a notoriously troublesome task. Similarly, defining music and delineating common characteristics that make certain music 'therapeutic' is fraught with challenges. These challenges are to be expected when approaching a complex subject like music-induced analgesia. However, certain methodological choices can be more helpful than others when it comes to clarifying the complex relationship between music and pain.

For example, we found no unified operational definition of pain in the literature. Some researchers chose a standard definition to use, such as Sin and Chow (2015) who reference a statement from the International Association for the Study of Pain (2012, p. 979): "Pain is described as an unpleasant sensory and emotional experience resulting from actual or potential tissue damage". Others opt for a description of pain's physiological effects, such as Allred, Byers and Sole (2010, p. 16) who write, "Pain causes stress, which in turn causes the cardiovascular system to respond by activating the sympathetic nervous system, resulting in increased heart rate, blood pressure, and oxygen demand". However, many authors did not provide any definition of pain whatsoever – not even

descriptions of the specific type of pain involved in the study.

Although some aspects of pain may seem obvious, the way that researchers define pain can, in fact, be a point of contention. Many in the scientific community assert that not all pain is the same phenomenon—that chronic pain is a process distinct from acute pain, or that pain can be classified as somatic, visceral, or neuropathic and behave in completely different ways (Melzack, 1999; Perron & Schonwetter, 2001). Others posit that most pain is a perceptual construct of the brain and would reject the idea that pain is a product of actual or potential tissue damage (Macknik & Martinez-Conde, 2013). Different definitions of pain can inform how we ask questions about pain and what mechanisms we might investigate to explain pain relief. Assuming that pain does not need to be defined is poor scientific practice.

To further complicate the issue, the articles included in this review address an enormous range of pain conditions. For example, articles included post-surgical pain (e.g., knee arthroplasty, hysterectomy, blood and marrow transplant), procedural pain (e.g., bronchoscopy, dental work, acupuncture), chronic pain (e.g., fibromyalgia, neuropathy, musculoskeletal pain) and experimental pain (e.g., cold pressor, noxious heat). Most articles selected one, specific pain condition, but sometimes the categories were broad enough that divergent pain experiences were included in the same study. For example, Good, Ahn and Payne (2008) conducted a quasi-experimental study to examine the effects of music on patients recovering from gynaecological surgery. However, the category of "gynecological surgery" included such vastly different experiences as Caesarean sections and laparoscopic surgeries for malignant tumours. Even the authors of the study noted that their participants' physical and emotional experiences varied widely and could have influenced the results.

The heterogeneity of pain types makes comparing results within and between articles quite challenging. Some authors expressed concern at trying to use the same research methods to detect pain relief across such heterogeneous types of pain. For example, Engwall and Duppils (2009) conducted a literature review of 18 studies involving music and post-operative pain. However, the surgeries ranged "from major abdominal and open-heart surgery to ambulatory surgery" (Engwall & Duppils, 2009, p. 381). Engwall and Duppils noted that the levels of pain, duration of pain, and timeline for music interventions varied drastically between these procedures. However, most researchers applied the same methods to all pain conditions—short, passive listening sessions (without a music therapist) with self-reports before and after music interventions. Engwall and Duppils concluded that the types of pain included in any given study could noticeably impact the findings. For example, in their review, most of the empirical studies without significant findings involved minimally-invasive laparoscopic procedures. Engwall and Duppils state: "It is possible that the laparoscopic surgery might have caused a limited extent of pain. Low pain ratings among the participants before the intervention might have had an influence on the result because initial pain scores were not severe" (Engwall & Duppils, 2009, p. 381). In other words, the lack of significant results in some empirical studies may have been because researchers used the same interventions for invasive and non-invasive surgeries. This begs the question — does music provide more relief to certain types of pain than others? In our observations, the literature does not provide much insight into these nuances. An equally complex methodological issue is how to measure pain. Without exception, the empirical studies included in this review used self-reporting scales to measure pain. Some used self-reports in conjunction with other measurements such as medication usage or vital signs, however, most relied entirely on self-reports.

Moreover, the majority of significant outcomes in the literature were found with data gathered via self-reporting scales. While data from self-reporting scales are valuable, they present limitations when used almost exclusively as an outcome measure. Given that self-reporting scales cannot provide a measure of physiological changes that could produce real or perceived reductions in pain, it is important to consider what self-reporting scales do measure.

A growing cadre of researchers are critiquing the efficacy of self-report measures in music intervention studies. A literature review by Klassen et al. (2008, p. 127) questioned the accuracy of using self-reporting scales with young children, stating "self-report scales of pain, although reliable and valid among older children, show bimodal distribution with younger children, indicating that they may not have the cognitive ability to grade pain on a scale". Engwall and Duppils (2009) conducted a literature review of music intervention studies involving adults recovering from surgeries and pointed out that much of the data collection using self-reporting scales occurred when patients were heavily medicated, and sometimes even emerging from anaesthesia. Engwall and Duppils questioned the ability of patients emerging from anaesthesia to accurately self-report using these scales, stating, "the potent effect of the drugs that are used during general anesthesia could have a negative influence on the ability to report pain immediately postoperatively" (Engwall & Duppils, 2009, p. 381). Yu et al. (2009) pointed out that scales used in their study had not been proven effective specifically for children with cerebral palsy (the focus demographic of the study). Vaajoki et al. (2012) raised concern that their results came from non-objective outcome measures. Although many of the scales used in the literature have been rigorously tested for efficacy and accuracy, whether they are being applied in a valid manner in all situations is clearly a question that has implications for the quality of results.

The assumption that a scale is psychometrically sound may be flawed, however, if the tests of its efficacy excluded certain medical conditions or demographic populations. A study by Bradt et al. (2016) is a prime example of this measurement validity problem. Bradt et al. conducted a mixed-methods feasibility study involving vocal music therapy for people suffering from chronic pain. Their randomised controlled trial employed a number of self-reporting scales for pain, emotion, and general functioning. They then held exit focus group interviews to collect qualitative data about participants' experiences in the trial. Their participants were almost exclusively African-Americans who resided in low-income, inner-city areas. Bradt et al. (2016) questioned the ability of certain self-reporting scales to accurately capture the experiences of this particular demographic. For example, they write:

> For physical functioning, responses on the General Activities Subscale of the Multi-dimensional Pain Index showed no improvement. This subscale asks questions related to social activities (e.g., visit friends, go to the movies) and chores (e.g., do laundry). In contrast to the quantitative ratings, participants shared that since participating in the vocal music therapy treatment program they felt less isolated, had the desire to be around people again, and experienced joy when being with others. When asked about the discrepancy of these statements with their questionnaire scores, they provided three main explanations. First, they stated that many items on the scale did not capture the benefits they received from VMT. Second, they reported that they refrained from participating in several items listed on the scale (e.g., going to the movies, taking a trip) because of financial constraints, bringing the social validity of this scale

> into question for inner-city, low-income African Americans. Third, participants explained that chronic pain had ruined their social relationships and that it would take more than 8 weeks to restore these. (Bradt et al., 2016, p. 21).

Self-reports also raise the risk of bias in experiments during which the participants cannot be blinded, as is the generally the case with music intervention studies. Some researchers even informed participants of possible pain benefits before the music interventions, raising the risk of bias and other threats to experimental validity such as the Hawthorne effect (Engwall & Duppils, 2009).

After gathering these and other criticisms of self-reporting scales, we conclude that our understanding of music-induced analgesia will not progress substantially if researchers continue to rely exclusively on these scales to document the effects of music on pain. While useful, self-reporting scales can only capture parts of the phenomenon that is music-induced analgesia. More consistent measurement of medication usage, vital signs, and biomarkers of stress (not to mention further experiments using brain imaging) would help address the questions left unanswered by self-reporting scales. While so many of these questions remain (how do we define pain? Are all pains the same phenomenon? How does music induce pain relief in the brain and body? Under what conditions is music most effective in reducing pain? etc.) diversifying measurement approaches would undoubtedly be beneficial.

Controversies in structuring music interventions

Our review of the extant literature found a number of unresolved controversies about which types of music interventions are most therapeutically effective. The two prominent debates were whether researcher-selected or participant-selected music are more likely to lead to reductions in pain and whether 'active' or 'passive' music interventions are more clinically valid. Most researchers chose to have participants listen to either researcher-selected or self-selected music and appeared to have strong convictions for one approach or the other. Proponents of self-selected music commonly argued that a participants' emotional connection with a piece of music provides great therapeutic value. Proponents of researcher-selected music asserted that certain musical characteristics such as tempo, range, and timbre, are key to the therapeutic value of music interventions. However, we found few articles that actually compared the effects of researcher-selected vs. participant-selected music within the same trial.

Only two empirical studies in our sample (Mitchell & Hons, 2006; Mitchell, Macdonald & Brodie, 2006) demonstrated statistically significant differences between participants who selected their own music versus participants who had music selected for them by researchers. Both of these studies were conducted in laboratory conditions and exposed young adult participants to cold pressor pain. Results from both studies indicated that participant-selected music was more effective than researcher-selected music in reducing pain and increasing tolerance to cold pressor pain. However, we recommend caution generalising broad conclusions from such a small sample of studies.

Another unresolved debate in the literature was that of 'active' versus 'passive' music interventions. Generally, 'active' interventions consisted of participatory music-making sessions or listening activities facilitated by a trained music therapist. 'Passive' music interventions, on the other

hand, usually consisted of participants listening to pre-recorded music without the presence of a therapist or facilitator. The vast majority of the empirical studies included in this review involved passive music interventions. Moreover, some researchers assert that the involvement of a trained music therapist is required to be considered "music therapy" (American Music Therapy Association, 2010). Our integrative review found only two literature reviews (Klassen et al., 2008; Lee, 2016) that analysed studies comparing the presence or absence of a music therapist in the same trial. No statistically significant differences between the types of interventions were found in either analysis.

Lee (2016) conducted a comparative analysis of 87 studies with 'passive' music interventions and ten studies with 'active' music interventions, contrasting their effects on self-reported pain scales. Lee found that on average the ten 'active' studies (referred to in the literature review as 'music therapy', all involving a music therapist) resulted in a -1.50 decrease on numerical rating scales of pain. The 87 'passive' studies (referred to in the literature review as 'music medicine', all without the presence of a music therapist) showed -1.08 decrease on numerical rating scales of pain. The difference was not statistically significant but heterogeneity was much higher for 'passive'/'music medicine' studies than 'active'/'music therapy' studies. Additionally, as Lee (2016, p. 468) points out,

> Gallagher, Liebman, and Bijur (2001) reported that the minimum change required for achieving a clinically meaningful change is 1.3 on 0 to 10 VAS scales. Based on that recommendation, music therapy is found to be clinically significant, whereas music medicine is not.

Determining whether specific musical characteristics are inherently therapeutic is also important to our understanding of music and pain. Understanding the importance of musical features such as tempo or frequency adds to our knowledge of how music relieves pain. Similarly, knowing if self-selection of music or active participation in music-making provide the best foundation for pain relief is highly relevant to clinical practice. However, more research is needed to resolve the controversies surrounding the various forms that music interventions can take.

Experimental design characteristics

A common theme in the recent literature is the questionable methodological rigour in many music intervention studies. Six of the eight literature reviews discussed in this paper concluded that the methodological quality of the studies reviewed was poor (see Clements-Cortés, 2016; Engwall & Duppils, 2009; Klassen et al., 2008; Lim & Locsin, 2006; Sin & Chow, 2015; Tam, Lo & Hui, 2016). Common methodological critiques included small sample size, strong potential for bias and placebo effect, lack of true control groups, lack of randomisation, inadequate reporting of methodology, and inability to double-blind.

These and similar points of critique were echoed by some authors of the individual empirical studies discussed in this review as well (Allred, Byers & Sole, 2010; Good, Ahn & Payne, 2008; Guétin et al., 2012; Gutgsell et al., 2013; Hsieh et al., 2014; Linneman et al., 2015; Mitchel & Hons, 2006; Vaajoki et al., 2012). For example, Allred, Byers and Sole (2010) compared the effects of a music intervention versus a quiet rest period on the pain of 56 adults recovering from total knee arthroplasty. However, no statistically significant differences between the two experimental groups on self-reports or vital

signs were found. The authors concluded that "since the quiet rest period became an intervention, the actual effect size was small for both pain and anxiety, resulting in a sample size that was too small to detect any differences" (Allred, Byers & Sole, 2010, p. 24). The lack of a true control group along with small sample size (e.g., low statistical power) may have prevented any significant results.

Sample size emerged as a consistent concern among the authors cited in this review. Of the 23 individual empirical studies included in this review, only six had samples of over 100 participants. Eight studies had between 50 and 100 participants, and nine studies included fewer than 50 participants. A number of authors listed sample size as a concern, either calling for their experiments to be replicated with a larger number of participants or listing small sample size as a factor that may have influenced results.

A number of literature reviews also noted the trend of small sample sizes. For example, Clements-Cortés (2016, p. 127) conducted a review of music interventions in palliative pain care and stated, "One of the main issues with the quantitative studies to date surrounds small sample sizes and an intensified need for studies with increased control and randomization of participants as well as meta-analyses". Engwall and Duppils (2009, p. 381) note that in their review of studies involving post-operative pain in adults, "the sample sizes were generally small […] Larger samples are desirable to gather more evidence on the effect of music intervention on postoperative pain". Lim and Locsin (2006) conducted a literature review of nine studies examining music interventions for pain in five Asian countries. Lim and Locsin note that

> a sample of 30 participants for experimental and quasi- experimental studies is considered small (Burns & Grove 1997). Nonetheless, four studies had sample sizes equal to or less than 30 participants […] The mixed and inconsistent results may be explained by the limitations and weaknesses of the studies, such as small sample sizes and lack of strict control of threats to validity. (Lim & Locsin 2006, p. 194)

Overall, the literature indicates a clear need for larger samples.

Two concerns pertaining to participants' demographic characteristics emerge from the literature: (a) insufficient collection of relevant demographic data and (b) inadequate representation of certain populations in music therapy research. Many studies did not collect (or report) data about race/ethnicity, socio-economic background, or musical training of their participants. However, those few studies that examined these variables found that all three can influence the outcomes of music interventions for pain. For example, Siedliecki and Good (2006) found that the effect of their music intervention was only significant for the European-American participants in the study, whereas the results for the African-American cohort were inconclusive. The authors call for greater attention to ethnic, racial, and cultural differences in the field of study and for methodologies that better capture diverse experiences of pain, emotional distress, and music.

The second concern is that certain populations are over-represented in music and pain research while others are underrepresented. For example, most of the articles included in this integrative review focused on middle-aged adults (40 to 60 years old). Only one literature review (Klassen et al., 2008) and one empirical study (Yu et al., 2009) focused exclusively on children and only three empirical

studies targeted young adults (Dobek et al., 2014; Mitchell & Hons, 2006; Mitchell, Macdonald & Brodie, 2006). Similarly, most empirical studies included predominantly female participants. The only studies in which males outnumbered females were studies conducted in China and Taiwan (Huang, Good & Zauszniewski, 2010; Liu & Petrini, 2015; Yu et al., 2009). However, the only study to control for fluctuating pain thresholds during the course of menstrual cycles was Dobek et al. (2014). Additionally, there were no studies that included sexual orientation, gender identity, or intersex status in data collection.

The research included in this integrative review presented methodological limitations, including a lack of operational definitions of pain, utilising the same experimental tools despite the variety of pain, over-reliance on self-reporting scales, lack of rigour in demographic reporting, lack of diversity among samples, small sample sizes and weak experimental designs. Taken together, these concerns could be potential reasons for the prevalence of mixed results, threaten the generalisability of the claims made within the existing research and present substantial challenges for moving the field of research forward.

Theoretical explanations for therapeutic effects of music on pain

Most of the research included in this review was clinical in focus. The researchers were predominantly concerned with studies demonstrating the effects of music in clinical settings and exploring implications for the practical work of music therapists. However, very little research has focused on theoretical frameworks to explain this phenomenon. As Yinger and Gooding (2015, p. 72) state, "music-based intervention studies have been criticized for the absence of a theoretical framework guiding the intervention content". The paucity of research into neurological and physiological mechanisms that could explain the effects of music on pain is a salient concern in the field and has broad implications for the future of this line of research.

Given the current lack of an existing evidence base, the question of how music might induce pain relief is largely unanswered. There is an unfortunate scarcity of evidence for any specific physiological mechanisms that could underlie a causal relationship between music and pain. General theories about pain abound and some articles included in this review cite these theories as plausible frameworks for music-induced analgesia. However, a surprising number of researchers failed to describe any theoretical underpinnings in their articles, and sometimes those who did demonstrated an outdated or oversimplified understanding of pain theories. These problems point to issues in research culture and a possible information gap between cutting-edge pain research and music practice.

An evidence-based theoretical framework for music-induced analgesia could help resolve many of the unanswered questions about pain and music interventions. An understanding of underlying mechanisms could provide insight into the continued prevalence of mixed results in clinical settings. It could also provide explanations for why some music interventions work better than others for certain types of pain, ages, demographics, and musical backgrounds. Furthermore, it could shed light on the controversy about passive versus active music interventions. As Yinger and Gooding (2015, p. 72) state, future research should focus on finding and explaining physiological mechanisms "in order to better articulate how and why music is selected and applied, and to promote a greater understanding of the mechanisms of change at work" in music-induced analgesia. Much more attention should be

placed on studies that investigate a biological basis for how music affects pain, not just if music relieves pain.

More specifically, further research is needed to pit theoretical frameworks against one another and to accumulate evidence for and against certain underlying mechanisms. Many factors are known to be involved in the perception and modulation of pain, and any number of these factors could produce music-induced analgesia. Additionally, research that explores what mechanisms might be involved in different types of pain (such as chronic vs. acute) or in different types of music activities (such as active vs. passive) would paint a much clearer picture of how the brain and body interacts with painful and musical stimuli. In the meantime, even promising explanations of music-induced analgesia remain unconfirmed.

The empirical studies and literature reviews included in the current paper dealt with theoretical frameworks in a variety of ways. Six articles failed to describe any theoretical framework at all or did so in a perfunctory way, such as briefly describing that music's effects on pain are physiological, behavioural, and emotional but then declining to elaborate (Vaajoki et al., 2012). There seemed a surprisingly high number of researchers who did not provide a theoretical framework for how music influences pain or even how pain functions more generally.

However, an equal number of empirical studies and literature reviews commented on the general lack of discussion about theory. The authors of this review counted six articles in which authors lamented the lack of understanding about physiological mechanisms involved in music-induced analgesia and the subsequent absence of robust theories explaining the phenomenon. For example, a literature review by Bernatzky et al. (2011) discusses possible explanations for music's effects on pain, then points out that the field of research has not advanced far enough to confirm or deny their propositions. For example, the authors hypothesise that if research into physiological mechanisms progresses, they "anticipate" evidence that endogenous opioids and other neurochemicals such as oxytocin might be involved in music-induced analgesia (p. 1990). However, they opine that "the science of [music therapy's] benefits has not progressed as rapidly as its acceptance" (p. 1990).

Bernatzky et al. (2011) conclude that many clinical studies point towards music being an effective adjuvant therapy but note that this evidence is limited when not accompanied by knowledge of underlying mechanisms:

> In sum, evidence is accumulating that music can be used to promote feelings of wellbeing and to facilitate therapeutic objectives […] but to most effectively employ music in [pain-management], the physiological sources and neurological pathways that give rise to music's power need to be explored. (Bernatzky et al., 2011, p. 1992)

Bernatzky et al. (2011, p. 1989) call for further research to "focus both on finding the specific indications and contra-indications of music therapy and on the biological and neurological pathways responsible for those findings". The other articles that highlighted the lack of theoretical frameworks applied in the literature reached similar conclusions.

Two such articles, an experiment by Garza-Villarreal et al. (2014) and a study by Linneman et al. (2015), offer a prime example of competing theoretical frameworks in action. Both studies examined the effects of music on fibromyalgia patients. Garza-Villarreal et al. (2014) compared pain-scale ratings and timed up-and-go (TUG) tasks between a control group listening to "pink noise" and an experimental group listening to self-selected music. Linneman et al. (2015) asked participants to listen to music as they normally would in their daily lives but to fill out reports five times per day for 14 days. The reports included rating scales for pain intensity, perceived control over pain, stress, and frequency of music listening (among other variables). These reports were also supplemented with saliva samples as biomarkers of stress. Garza-Villarreal et al. and Linneman et al. advance very different underlying mechanisms for music-induced analgesia, only to then caution the reader that these hypotheses have yet to be verified.

For example, Garza-Villarreal et al. (2014) assert that fibromyalgia sufferers will experience relief from music because of primary analgesic pathways in the central nervous system (possibly involving dopamine) and because of secondary cognitive and emotional processes (such as distraction):

> Listening to music reduces acute and chronic pain (Guétin et al. 2012; Roy et al. 2012; Korhan et al. 2013). Several studies have suggested that the analgesic effect of music (or music- induced analgesia) may be secondary to cognitive and emotional effects that arise from listening to music… Distraction is a well-known cognitive analgesic mechanism (Tracey et al. 2002; Villemure & Bushnell 2009) that is present when listening to music. Also, listening to music has been related to dopamine release from the caudate and the nucleus accumbens (Salimpoor et al. 2011), and dopamine itself is known to have a role in central analgesia (Wood, 2008). […] All this evidence suggests that music-induced analgesia may be regarded as a "central" type of analgesia, as the effect seems to occur in the brain stem, secondary to cognitive and emotional brain processes and by means of central neurotransmitters (i.e., dopamine). (Garza-Villarreal et al., 2014, p. 1)

However, later in the study Garza-Villarreal et al. (2014) acknowledge that "it is not yet known which are the specific mechanisms behind music-induced analgesia" (p. 4) and that the music-induced pain relief experienced by some fibromyalgia sufferers in their study was not "directly measured" (p. 6). The explanation that music-induced analgesia is the result of processes in the central nervous system with secondary cognitive and emotional effects is a logical leap from prior research. However, as the authors concede, it is a theory that has yet to be directly corroborated.

Linneman et al. (2015) also recruited participants suffering from fibromyalgia but opted for a completely different explanation of music-induced analgesia. The authors present prior research showing that music can stimulate the limbic system, reduce cortisol levels (a biomarker of stress) and impact the autonomic nervous system (ANS). They also summarise well-known facts about pain's interactions with stress involving the hypothalamus-pituitary-adrenal axis (HPA axis) and ANS. Following from this research, the authors assert that music reduces pain by stimulating the limbic system, which can down-regulate both the HPA axis and ANS:

> On a neurobiological level, music listening exerts effects in the central nervous system that are critical to the modulation of both pain and stress. The limbic system can be regarded as a key structure in this context, which further impacts on neuroendocrine and autonomic functioning. (Linneman et al., 2015, p. 434)

Similar to the hypothesis stated by Garza-Villarreal et al. (2014), the explanation posited by Linneman et al. (2015) flows logically from previous research. However, it involves completely different brain structures, chemicals, and physiological responses. As with Garza-Villarreal et al. (2014), Linneman et al. (2015) qualify their assertions with heavy caveats:

> Nevertheless, the exact mechanisms underlying the pain- reducing effect of music remain unclear. One open question concerns whether music listening can reduce pain per se (i.e., direct effect) or whether it facilitates coping with pain (i.e., indirect effect). Bernatzky et al. (2012) state that music exerts effects in the brain that directly impact on the relevant pain circuits, which in turn reduce the perception of pain intensity. However, the empirical evidence is not consistent in this regard, as there are also studies showing no music-induced reduction in perceived pain intensity (i.e., MacDonald et al. 2003). (Linneman et al., 2015, p. 434)

Linneman et al. used the hypothesis of HPA-axis/ANS down-regulation to guide their study (specifically the decision to take saliva samples for biomarkers of stress). However, like Garza-Villarreal et al., they clearly understand that the underlying mechanisms of music-induced analgesia are an open question.

This comparison of the Garza-Villarreal et al. and Linneman et al. studies demonstrates that there are multiple plausible theoretical explanations for music-induced analgesia. However, without more evidence, we cannot say definitively that dopamine is any more or less responsible for the analgesic effects of music than down-regulation of the HPA axis via the limbic system. Given the current state of the research, two teams can approach the exact same population (fibromyalgia patients) with the same research target (music's effects on pain) and use completely different frameworks to understand the results.

Bernatzky et al. (2011), Garza-Villarreal et al. (2014), and Linneman et al. (2015) balance the promising logic of their proffered theoretical frameworks with the acknowledgement that they are as yet unconfirmed. However, many of the remaining empirical studies and literature reviews that cited a theoretical framework did so without qualifiers about the scarcity of evidence for or against it. Furthermore, there was an abundance of theories cited, revealing a lack of consensus in the field of research. Table 3 provides a summary of all the theories referenced in our sample as possible explanations for music's effects on pain. Some of these theories are more robust than others, and some reveal a more nuanced understanding of pain than others.

For example, one of the most frequently cited theories was gate-control theory. Gate-control theory states that certain stimuli (such as music) can close neural 'gates' in the spinal cord that transduce painful sensations, thereby relieving pain. Psychologists Ronald Melzack and Patrick Wall (1965) proposed this theory in the 1960s, and it has since become a widely-accepted model applied in

Theory	Summary	Citations using this theory
Name: Gate-control theory *Discipline*: Psychology / neuroscience	*General theory*: certain stimuli can close neural 'gates' in the spinal cord that transduce painful sensations, thereby relieving pain. *Relation to music*: music somehow closes pain 'gates' in the spinal cord and reduces sensations of pain.	Engwall & Duppils (2009); Finlay (2014); Good, Ahn & Payne (2008); Guétin et al. (2012); Klassen et al. (2008); Lee (2016); Mitchell, MacDonald, Knussen & Serpell (2007); Lim & Locsin (2006); Mitchell & Hons (2006); Mitchell, Macdonald & Brodie (2016) Total: 10
Name: Attention/perception of pain (cognitive pain modulation) *Discipline:* Psychology / neuroscience	*General theory:* Distraction can be used to relieve pain or other unpleasant emotions. *Relation to music*: music channels attention towards a pleasant stimuli and distracts away from painful stimuli, thereby decreasing sensations of pain.	Bradt et al. (2016); Garza-Villarreal et al. (2014); Guétin et al. (2012); Mitchell, MacDonald, Knussen & Serpell (2007); Lim & Locsin (2006); Mitchell & Hons (2006); Mitchell, Macdonald & Brodie (2016); Mitchell, Macdonald & Knussen (2008) Total: 8
Name: Endogenous opioids/descending analgesic pathways *Discipline:* Neuroscience	*General theory*: Descending analgesic pathways in the brain and spinal cord use endogenous opioids (beta-endorphin, met- and leu-enkephalins, and dynorphins) and other neurochemicals to diminish painful sensations. *Relation to music:* Music triggers the release of endogenous opioids (or other neuro-chemicals) in the brain and relieves pain via descending analgesic pathways.	Bernatzky et al. (2011); Bradt et al. (2016); Dobek et al. (2014); Garza-Villarreal et al. (2014); Good, Ahn & Payne (2008); Hsieh et al. (2014) Total: 6
Not specified	N/A	Clements-Cortes (2016); Guétin et al. (2016); Liu & Petrini (2015); Man et al. (2015); Vaajoki et al. (2012); Yu et al. (2009) Total: 6
Name: Stress (HPA axis, autonomic nervous system) *Discipline*: Neuroscience	*General theory*: Pain interacts with the hypothalamus-pituitary-adrenal axis (HPA axis), which controls the body's stress response. Stress leaves physical traces, such as increased cortisol levels or stimulation of the sympathetic nervous system (resulting in quickened heartbeat, increased blood pressure, etc.) Pain and stress can form a self-reinforcing feedback loop. *Relation to music*: music acts in some way to mitigate stress via down-regulation of the HPA axis, thereby decreasing pain.	Alam et al. (2016); Linneman et al. (2015); Bernatzky et al. (2011); Allred, Byers & Sole (2010); Tam, Lo & Hui (2016) Total: 5
Name: Neuromatrix theory Discipline: Psychology / neuroscience	*General theory*: perception of pain is not the brain's passive response to peripheral stimuli, but an active generation of a subjective experience in a network of neural processing loops (called the 'neuromatrix'). *Relation to music*: music acts in some way to influence the construction of this subjective pain experience and mitigate the perception of pain.	Finlay (2014); Mitchell & Hons (2006); Mitchell, Macdonald & Brodie (2006) Total: 3

Name: Limbic/paralimbic affective pain modulation *Discipline*: Neuroscience	*General theory*: areas of the brain that process emotion and mood interact with perceptions of pain. *Relation to music*: music is a powerful modulator of emotion and may interact with limbic structures that also influence pain perception.	Bradt et al. (2016); Guétin et al. (2012); Linneman et al. (2015) Total: 3
Name: Pleasure, reward, and motivation centres of the brain *Discipline*: Neuroscience	*General theory*: over time, pain changes the way that pleasure, reward, and motivation centres of the brain responds to stimuli. *Relation to music*: music is known to activate these areas of the brain and could potentially serve to mitigate the effects of pain in these brain regions.	Hsieh et al. (2014); Linneman et al. (2015) Total: 2
Name: Good and Moore theory of acute pain management and middle-large pain management *Discipline*: Nursing	*General theory*: outlines guiding principals of clinical pain management (for example, the idea that non-pharmacological adjuvants to analgesic medication can reduce pain). *Relation to music*: Music is worthy of exploration as a non-pharmacological adjuvant to medication.	Huang, Good & Zauszniewski (2010), Lim & Locsin (2006) Total: 2
Name: "Neurosignatures" and chronic pain *Discipline*: Psychology / neuroscience	*General theory*: as a corollary to neuromatrix theory, each person's brain produces a unique participative experience of pain called a "neurosignature." These neurosignatures often change when people undergo chronic pain. *Relation to music*: Music may disrupt or restore certain aspects of neurosignatures in chronic pain sufferers.	Finlay (2014) Total: 1
Name: Meyer's theory of music and emotion *Discipline*: Music theory	*General theory*: conceptualises the affective power of music. *Relation to pain*: the emotional influence of music can be harnessed to process pain.	Lim & Locsin (2006) Total: 1
Name: Roger's science of unitary human beings *Discipline*: Nursing	*General theory*: views nursing as both a science and an art that must insert itself into the life processes of unified (i.e., not divisible into unconnected parts) human beings. *Relation to music*: music interacts with many patterns in the unified human and should be explored as an adjuvant therapy in nursing.	Siedliecki & Good (2006) Total: 1
Name: Barrett's theory of power *Discipline*: Nursing	*General theory*: defines power as the knowing participation in change. *Relation to music*: music interventions can increase power through participation in change (i.e., pain relief).	Siedliecki & Good (2006) Total: 1

Table 3: Summary of theoretical frameworks presented in the literature to explain music-induced analgesia

pain research. However, a number of issues remain with this theory. Although there is evidence that certain stimuli do seem to 'turn off' or at least dampen pain signals, researchers have yet to discover the physical manifestation of the metaphorical 'gates' in the spinal cord. Despite our rapidly-increasing

knowledge about how neurons function in the brain and spinal cord, we have yet to identify a specific mechanism that correlates with the premises of gate theory.

Furthermore, gate-control theory has been modified, enriched and augmented significantly since the 1960s. For example, Ronald Melzack (1999) himself proposed the complementary 'neuromatrix theory' to help explain observations about subjective pain experiences that could not be accounted for with gate-control theory, such as the way that pain thresholds change over time in people who suffer from chronic pain. Additionally, the knowledge that we now possess about the brain and body far surpasses that of the 1960s, and current theories of pain tend to embrace a wide array of complex variables. Gate-control theory remains an elegant model but is limited in its ability to accurately describe the physiological mechanics of a brain processing pain.

It is not surprising that many researchers would look to music as a type of stimuli that can close pain 'gates' in the spinal cord. However, we found many researchers referencing gate-control theory without caveats about the theory's limitations or questions about how to find physiological evidence for gate-control theory in action. At a certain point, referencing gate-control theory as an explanation for music-induced analgesia raises more questions than it does answers.

The literature included in this integrative review demonstrates a need for better understanding of the mechanisms involved in music-induced analgesia. Fortunately, some researchers have acknowledged this need and have also called for extensive inquiry to these ends. However, this review found only one study that produced evidence of potential underlying mechanisms for music-induced analgesia: an experiment by Dobek et al. (2014) which claims to be the first to use neural imaging to investigate music-induced analgesia.

Dobek et al.'s (2014) randomised controlled trial introduced participants to noxious heat stimuli and asked them to rate their pain on a 100-point scale with verbal descriptions. The experimental group brought in a self-selected piece of music at least 215 seconds long to listen to via headphones while undergoing the noxious heat. However, Dobek et al. (2014) also took fMRI images of both control and experimental groups during the course of the experiment. The fMRI images of the brain, brain stem, and spinal cord were taken to examine changes in BOLD responses in parts of the brain that are known to be involved in nociception, pain modulation, and audition of music.

The results of the subjective pain ratings showed an average of five points difference between the control and experimental group or roughly a 10% pain reduction in the experimental group. The results of the fMRI images supported the findings that participants in the experimental group were experiencing pain relief. As would be expected, the experimental group's fMRI images showed activity in brain areas involved in pain perception and music audition. However, the images also showed significant changes to BOLD responses in areas of the brain that are known to play a role in pain modulation. As Dobek et al. (2014, p. 1066) state,

> Results of this study are consistent with the hypothesis that pleasurable music evokes opioid release that may act on the limbic system, dorsolateral prefrontal cortex, and periaqueductal gray matter to activate the descending analgesia pathway. Subsequently, music produced a lower response magnitude in the dorsal horn of the spinal cord, which may have contributed to reduced pain perception.

These findings offer evidence to the theory that endogenous opioids/descending analgesic pathways are a primary mechanism for music's effects on pain.

Dobek et al.'s (2014) study was certainly limited in scope as it only included 12 participants, all of whom were females between the ages of 18 and 40. Replicating Dobek et al.'s results with a larger and more diverse sample size would certainly strengthen the evidence. Furthermore, as Dobek et al. (2014, p. 1066) note, "Future studies are needed to specifically probe whether music reduces pain by attention or emotion, or by another mechanism entirely". Additionally, future studies could examine other variables in pain modulation such as the HPA axis and stress responses. Although limited in scope, the Dobek et al. (2014) study is a step towards greater understanding of underlying mechanisms and provides a launching point for future investigation into music-induced analgesia.

Research into music's effects on pain has historically focused on clinical settings. Although this focus is essential for practice, it may also lead to a lack of emphasis on accruing physiological evidence that could point to the underlying mechanisms behind music's effects on pain. In addition to contributing to the therapeutic goals, future researchers should focus on pitting theories against one another and accumulating evidence for and against specific physiological explanatory mechanisms. The results from such studies should shed light on many of the unanswered questions in the field and provide helpful guidance for researchers concerned with clinical applications of music interventions. As Bernatzky et al. state in their 2011 literature review, "Finding the basis of the neurophysiological effects of the affective power of music may allow us to more fully harness the utility" of music in therapeutic settings (p. 1990). Without this evidence, "the controversies over the magnitude of musically promoted therapeutic effects are bound to continue" (p. 1990).

CONCLUSION

The existing literature provides extensive documentation of music-induced analgesia. However, opportunities to further the body of knowledge are abundant given that many questions about music and pain remain unanswered. Researchers can advance the field of study by creatively approaching unresolved debates (e.g., how best to measure pain, what types of music interventions are most therapeutic, what are underlying mechanisms of music-induced pain relief). This may require more extensive cross-disciplinary conversations between experts in music therapy, music medicine, neuroscience, and clinical practice and the potential for such collaborations should be embraced. Improving the methodological quality of music and pain research should also be a primary focus of future studies. Researchers should aim to increase sample sizes, employ more rigorous randomisation and blinding techniques, and report demographic details more carefully. All of these methodological improvements will help to accumulate evidence for and against competing types of music interventions and theoretical frameworks. The more we understand how and why music relieves the pain, the better we can employ music interventions as a low-risk, low-cost adjuvant to traditional pain management.

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APPENDIX

The table below offers a summary of individual empirical studies included in this integrative review.

Author	N	Design	Pain experience	Type of musical stimuli	Summary of findings
Alam et al. (2016)	155	Single-blinded randomised control experiment. (Measured outcomes for both patients and surgeons)	Excisional surgery for basal and squamous cell carcinoma	Relaxing music, guided imagery. Music was standard across all subjects. Described as soothing and featuring nature sounds. 30:25 recording at 60 to 70 bpm.	Results inconclusive for patient pain but showed decreases in surgeon anxiety.
Allred et al. (2010)	56	Randomised but not controlled. Adult subjects.	First ambulation on day 1 after total knee arthroplasty	Celtic Flutes, World Flutes, Beethoven's Moonlight, Native American Flute and Guitar, Peaceful Harp, Chopin's Nocturne. Twenty minutes before and after ambulation.	Results inconclusive because music intervention group was compared to quiet rest group (itself an intervention). Both groups demonstrated improved anxiety and pain.
Bradt et al. (2016)	55	Mixed methods feasibility study.	Benign chronic pain	Active music therapy (choral group experience).	Quantitative and qualitative results overwhelmingly positive (patients reported relief).
Dobek et al. (2014)	12	Randomised control experiment and brain imaging study.	Noxious heat (Medoc TSA-II thermal sensory analyser)	Self-selected piece of music at least 215 seconds long with listening via headphones.	Participants reported 10% decrease in pain and imaging found BOLD activity in areas of the brain involved with pain relief as well as expected areas of pain perception and music audition.
Finlay (2014)	23	Longitudinal study of chronic pain sufferers vs. controls with no chronic pain or emotional problems.	Chronic, non-malignant pain	Listening to the same musical excerpt for 28 days. Subjects were given the choice between two unfamiliar jazz excerpts (60-90 bpm) and listened to that excerpt the entire trial.	Some evidence of short-term pain relief but not long-term relief.
Fredenburg & Silverman (2014)	32	Randomised control experiment.	Blood and marrow transplant	Session with a music therapist who designed live activities based on patient preferences. Sessions lasted 30 minutes.	Results indicate positive changes in pain perception and affect (positive and negative) for music group.
Garza-Villarreal et al. (2014)	22	Within-subjects experimental design.	Fibromyalgia	Self-selected piece of relaxing, pleasant music vs. 'pink noise'.	Relaxing, pleasant music reduced pain and increased functional mobility.
Good, Ahn & Payne (2008)	73	Quasi-experimental, pre-test / post-test experiment.	Genealogical post-operative pain	Korean or American music (self-selected from among a number of options) listened to for 15 minutes at four checkpoints.	Music plus analgesics reduced pain more than analgesics alone.

Guétin et al. (2012)	87	Single-blinded randomised control study.	Chronic pain	Two daily sessions of music listening for 60 days.	Music group had significant reduction in use of anxiolytic agents and reported less anxiety and depression.
Guétin et al. (2016)	53	Descriptive, quasi-experiment.	Mixed	Smart-phone based app called *Music Care,* each patient used the application at least once.	Listening to self-selected music for 20 mins reduced pain.
Gutgsell et al. (2013)	200	Randomised control experiment.	Palliative care (majority cancer patients)	1 session with a music therapist engaging in listening and live music activities.	Less pain reported in music therapy group. Increase in functional pain scale scores in music therapy group.
Hsieh et al. (2014)	48	Randomised control experiment.	Noxious heat	Self-selected music that met certain criteria about length, mood, etc.	Rating lowest at post-test for music condition.
Huang, Good & Zauszniewski (2010)	126	Randomised control experiment.	Cancer	Music selected from a number of Taiwanese and American options. 60 to 80 bpm, no lyrics. 30min listening sessions.	Music group experienced more pain relief than controls.
Korhan et al. (2014)	30	Within-subjects experimental design.	Neuropathic pain	Classical Turkish music played via MP3 player; 60 to 66 bpm, Nihavend mode. 60 mins.	Decrease in pain for music condition that indicated a cumulative dose effect over time.
Linnemann et al. (2015)	30	Descriptive quasi-experiment.	Fibromyalgia	Daily listening habits (self-selected by the participants.) On average, participants listened to music for two hours per day.	Improved perceived control over pain, especially when music was positive in valence. Effects of music not mediated by biomarkers of stress.
Liu & Petrini (2015)	112	Randomised control experiment.	Thoracic surgery	30min soft music listening sessions ('melodious' 'soft' and 60-80 bpm) for three consecutive days	Decrease in pain anxiety, systolic blood pressure and heart rate for music group.
Mercadíe et al. (2015)	22	Quasi-experimental design (participants chose condition)	Fibromyalgia	Music selections available from the Guétin "Music Care" smartphone app vs. miscellaneous environmental sounds. Passive or active listening conditions.	Reduction in pain and fatigue when listening passively.
Mitchell & Hons (2006)	54	Within-subjects experimental design.	Cold pressor pain	White noise, researcher-selected "relaxation" music, or participant-selected music.	Preferred music listening results in more tolerance to pain and greater perceptions of control.
Mitchell et al. (2006)	44	Within-subjects experimental design.	Cold pressor pain	Participant-selected music vs. humour tapes (chosen from among a selection provided by researchers) vs. verbally administered arithmetic tasks.	Preferred music listening results in more tolerance to pain and greater perceptions of control.
Mitchell et al. (2008)	80	Within-subjects experimental design.	Cold pressor pain	Participant-selected music vs. visual art distraction vs. silence.	Preferred music listening results in more tolerance to pain, less anxiety, and greater perceptions of control.

Siedliecki & Good (2006)	60	Randomised control experiment.	Chronic, non-malignant pain	Participants were designated to either 'patterned music' or 'standard music' groups and made selection from provided songs within those groups. Listened one hour a day for seven days.	Music intervention led to improvements for pain, power, depression, and disability. No differences between patterned and standard music.
Vaajoki et al. (2012)	168	Quasi-experimental design.	Abdominal surgery	Participants chose music from 2000 popular and classical Finnish songs downloaded onto an iPod.	Short-term decreases in pain and pain distress for music group. No effects after second postoperative day.
Yu et al. (2009)	60	Randomised control experiment.	Acupuncture treatments for patients with cerebral palsy	Music: 30 Chinese or English popular kids' songs, 20 educational songs, 15 Christmas songs, 15 lullabies, ten nursery rhymes, 12 folk songs, and ten school songs. Patients selected ten songs they liked. Listened for 30mins.	No effect of music and acupuncture on pain. Music group reported reduced anxiety.

Ελληνική περίληψη | Greek abstract

Μουσικές παρεμβάσεις και πόνος: Μια περιεκτική ανασκόπηση και ανάλυση της πρόσφατης βιβλιογραφίας

Hannah Fidler | Peter Miksza

ΠΕΡΙΛΗΨΗ

Οι μουσικές παρεμβάσεις προσφέρουν μια χαμηλού κόστους, χαμηλού κινδύνου επικουρική συνδρομή στις παραδοσιακές θεραπείες. Παρόλα αυτά, τα υπάρχοντα βιο-φυσιολογικά ευρήματα [physiological evidence] που εξηγούν το πώς η μουσική ανακουφίζει από τον πόνο είναι σπάνια. Σε αυτή την περιεκτική ανασκόπηση παρέχουμε μια περίληψη των αποτελεσμάτων από την πρόσφατη βιβλιογραφία σχετικά με τη μουσικά-προκληθείσα αναλγησία [music-induced analgesia] καθώς και μια κριτική ανάλυση των μεθοδολογικών επιλογών. Στη συνέχεια περιγράφουμε την ανάγκη για ισχυρές θεωρητικές διευκρινήσεις που θα μπορούσαν να εξηγήσουν τις παρατηρούμενες επιδράσεις της μουσικής στον πόνο. Ολοκληρώσαμε μια ευρεία ηλεκτρονική αναζήτηση χρησιμοποιώντας κοινές μηχανές αναζήτησης για τον εντοπισμό πρόσφατων πειραματικών μελετών και βιβλιογραφικών ανασκοπήσεων που αντιπροσώπευαν την τρέχουσα κατανόηση των πιθανών αιτιακών σχέσεων μεταξύ μουσικής και πόνου. Τριανταένα άρθρα συγκεντρώθηκαν σε αυτή την ανασκόπηση – 23 ήταν μεμονωμένες πειραματικές μελέτες και οκτώ ήταν βιβλιογραφικές ανασκοπήσεις. Τα αποτελέσματα δείχνουν ότι η μουσικά-προκληθείσα αναλγησία είναι ένα σταθερά παρατηρήσιμο φαινόμενο σε κλινικά πλαίσια, αν και μια μειονότητα των άρθρων καταγράφει ασαφή αποτελέσματα. Το μέγεθος της ανακούφισης του πόνου είναι από μικρό έως μέτριο και τα αποτελέσματα γίνονται λιγότερο καταληκτικά όταν προέρχονται από έμμεσα εργαλεία αξιολόγησης του πόνου. Στους περιορισμούς της πρόσφατης βιβλιογραφίας περιλαμβάνονται οι λειτουργικοί ορισμοί του πόνου, τα είδη του πόνου που εξετάζονται στα άρθρα, η υπερβολική χρήση εργαλείων αυτο-αναφοράς, η αυστηρότητα στην αναφορά δημογραφικών στοιχείων, η ποικιλομορφία και το μέγεθος των δειγμάτων και των αδύναμων πειραματικών ερευνητικών σχεδιασμών. Οι θεωρητικές επεξηγήσεις για την επίδραση της μουσικής στον πόνο ποικίλουν αλλά είναι

ανεπαρκώς ανεπτυγμένες και στερούνται βιο-φυσιολογικών τεκμηρίων. Καταλήγουμε στο συμπέρασμα ότι η μουσικά-προκληθείσα αναλγησία παραμένει ένα συνεχώς παρατηρήσιμο φαινόμενο. Για την περαιτέρω ανάπτυξη του πεδίου χρειάζεται να εφαρμοστούν πιο αυστηρές μεθοδολογικές πρακτικές και να δοθεί μεγαλύτερη προσοχή στην διερεύνηση των υποκείμενων βιο-φυσιολογικών μηχανισμών που αφορούν τις σχέσεις μεταξύ μουσικής και πόνου.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ

μουσικές παρεμβάσεις, μουσικοθεραπεία, πόνος, διαχείριση πόνου, μουσικά-προκληθείσα αναλγησία [music-induced analgesia], εναλλακτικές θεραπείες

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ARTICLE

Interprofessional research in Guided Imagery and Music: Working collaboratively

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ABSTRACT

Interprofessional collaborative research has been gaining momentum as a leading research practice. The challenges posed by the complex nature of the world and healthcare require new and different solutions. These require the diverse skill and collective work of multiple disciplines. As a result, funding agencies are giving priority to interprofessional collaborative research rather than single discipline research. This article focuses on one method of music therapy practice: The Bonny Method of Guided Imagery and Music (GIM), where practitioners typically work alone. It reviews interprofessional collaboration in current GIM research literature and explores how GIM can benefit from this type of research practice. The authors identify and discuss the competencies and skills needed to successfully engage in interprofessional collaborative research and provide an analysis of two case illustrations of interprofessional research practice in GIM.

KEYWORDS

Guided Imagery and Music (GIM), interprofessional, research, collaboration

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Many professional disciplines work towards improving and increasing research in healthcare, and the Bonny Method of Guided Imagery and Music (GIM) is one such approach. GIM is an exploratory method that involves listening to specifically selected sequenced music in a relaxed state to elicit imagery, memories, experiences, symbols, feelings, creativity, therapeutic intervention, self-understanding, awareness, and spiritual experience (Short, Gibb & Holmes, 2011; Summer, 1988). Listening to therapist-selected music in a relaxed state brings the imagination into conscious awareness, as the imager describes these experiences with the guide as they image simultaneously (Clark & Keiser, 1986; Short, Gibb & Holmes, 2011). The supported process of listening to the

programmed music in this relaxed state allows GIM to reach the deep layers of the unconscious and bring latent, blocked and repressed information and material to conscious awareness to be processed, to develop awareness and find resolution (Pickett, 2002).

Practitioners using the specialised method of the Bonny Method of Guided Imagery and Music (GIM) (Bruscia & Grocke, 2002) frequently work alone in private practice, and opportunities for engagement with other professionals may be limited. However, increasingly across the broad healthcare spectrum, practitioners are expected to engage in interprofessional collaborative practice in order to improve client care (Strober, 2011; Tracy & Chlan, 2014; Green & Johnson, 2015). In the context of increasing the evidence base for best practice in GIM, such interprofessional collaboration also applies to research practices and how this further informs and advances clinical practice (Clarke et al., 2012; Remedios & Gummesson, 2018). This article seeks to identify and explore the role of interprofessional collaboration in research activities related to GIM, for example, in supporting research development and implementing research studies. In order to address this, 1) we provide an analysis of interprofessional collaborative research in GIM; 2) we provide a rationale for engaging and increasing collaborative practices in GIM clinical practice and research; 3) we explore definitions of the different types of collaborative research; 4) we explore competencies for such work; 5) we explore effective interprofessional research teams; 6) we consider the barriers and challenges to interprofessional collaborative research; and 7) we provide advice about the management of interprofessional collaborative research teams. Our framework and understandings are then demonstrated via two separate case studies leading to the conclusion that researching in a collaborative manner strengthens research and its subsequent application to practice. Developing a working nomenclature is critical in order to better understand collaborative work in professional practice, before delving further in.

DEFINING AND DIFFERENTIATING INTERPROFESSIONAL AND MULTIDISCIPLINARY PRACTICE

It is important to understand the terminology, language and meaning of collaborative work in the professional healthcare domain. Two terms requiring definition at this point include: *multidisciplinary* and *interprofessional* practice. *Multidisciplinary practice* focuses on working with the same client group, but with each professional discipline maintaining its own unique contribution to care to help solve a problem (Aboelela et al., 2007). For example, a client recovering from cardiothoracic surgery may visit the cardiac specialist, the family doctor, the dietitian, the physical therapist, the cardiac rehabilitation nurse/program and the GIM therapist. Each modality has its own specialist skills to bring to the client, but outside of the hospital or medical situation there is limited formal communication between the professionals, and collaborative decision-making rarely occurs. In contrast, *interprofessional practice* extends beyond multidisciplinary practice, serving as an integrated approach focusing on collaboration and sharing of information, expertise and decision-making (Caldwell & Atwal, 2003). For example, this can include working with a client who is engaged in trauma work in their therapeutic process. The client has a primary therapist who is a verbal therapist. The primary therapist recognises the client is not able to fully process her trauma through her words alone. The client identifies a desire to utilise creative modalities to help her process her trauma. The primary therapist refers the client to

work with a GIM practitioner and an art therapist. In this process, each clinician brings their unique expertise to the process, and they work and communicate together for the best interests of the client. They make decisions collaboratively and with the client's permission inform each other of the work the client has done within each modality to successfully support the client's therapeutic process. Understanding how interprofessional collaboration is defined provides a basis to explore how it is represented in our literature and how frequently it is a part of research and practice in the Bonny Method of Guided Imagery and Music. The next section explores the GIM literature and reviews interprofessional collaboration in the literature.

INTERPROFESSIONAL COLLABORATIVE RESEARCH IN GIM: AN ANALYSIS

We sought to understand the current status of interprofessional collaborative research in relation to practice in the field of GIM, since practitioners of the specialist GIM technique typically work alone. Journal articles typically provide good examples of research and investigative practices relating to improvements and understanding in any given profession (Lukka & Kasanen, 1996; Peighambari, Sattari, Kordestani & Oghazi, 2016; Vessey, Ramesh & Glass, 2002). In order to explore collaborative practices in GIM literature, we reviewed articles from the *Journal of the Association for Music and Imagery* (JAMI) as examples of thinking and practice in GIM literature and used this as a proxy to indicate collaborative research approaches. JAMI is the official and sole journal dedicated to the GIM method. Our assessment was completed by reviewing the index of each published journal edition (Association for Music and Imagery, 2016-2018) and coding the number of authors for each article, in terms of whether single or multiple authors were listed for the manuscript and their respective disciplines. This data was then processed and analysed using descriptive statistics. Results of our analysis showed that during the time span 1992-2016, there were 15 editions of JAMI, comprising a total of 101 published articles. Few papers (9) listed multiple authors, suggesting that only 9% of published papers were collaborative in nature (see Figure 1), appearing in only five of the editions of the journal. Based on the only data available, our analysis suggests that GIM practitioners are not typically collaborative in their thinking, practice and research.

In order to create a comparison, we analysed publications from 2000-2016. Peer-reviewed journals were analysed. Articles that included multiple authors from more than one discipline were identified as interprofessional, while those that included multiple authors from the same discipline were not. Additionally, data regarding the disciplines represented in these publications was also gathered. For this analysis, book reviews, editorials and letters to the editor were excluded, as our focus is on collaborative research.

For this analysis, two leading music therapy journals (*Journal of Music Therapy* and *Nordic Journal of Music Therapy*) were included, in addition to the *Journal of the Association of Music and Imagery*. Table 1 illustrates the total number of articles reviewed from each journal as well as the percentage of single discipline articles, meaning only one discipline was represented by the author or authors. Table 1 also indicates the percentage of articles with authors that represented two or more disciplines, indicating an interprofessional approach.

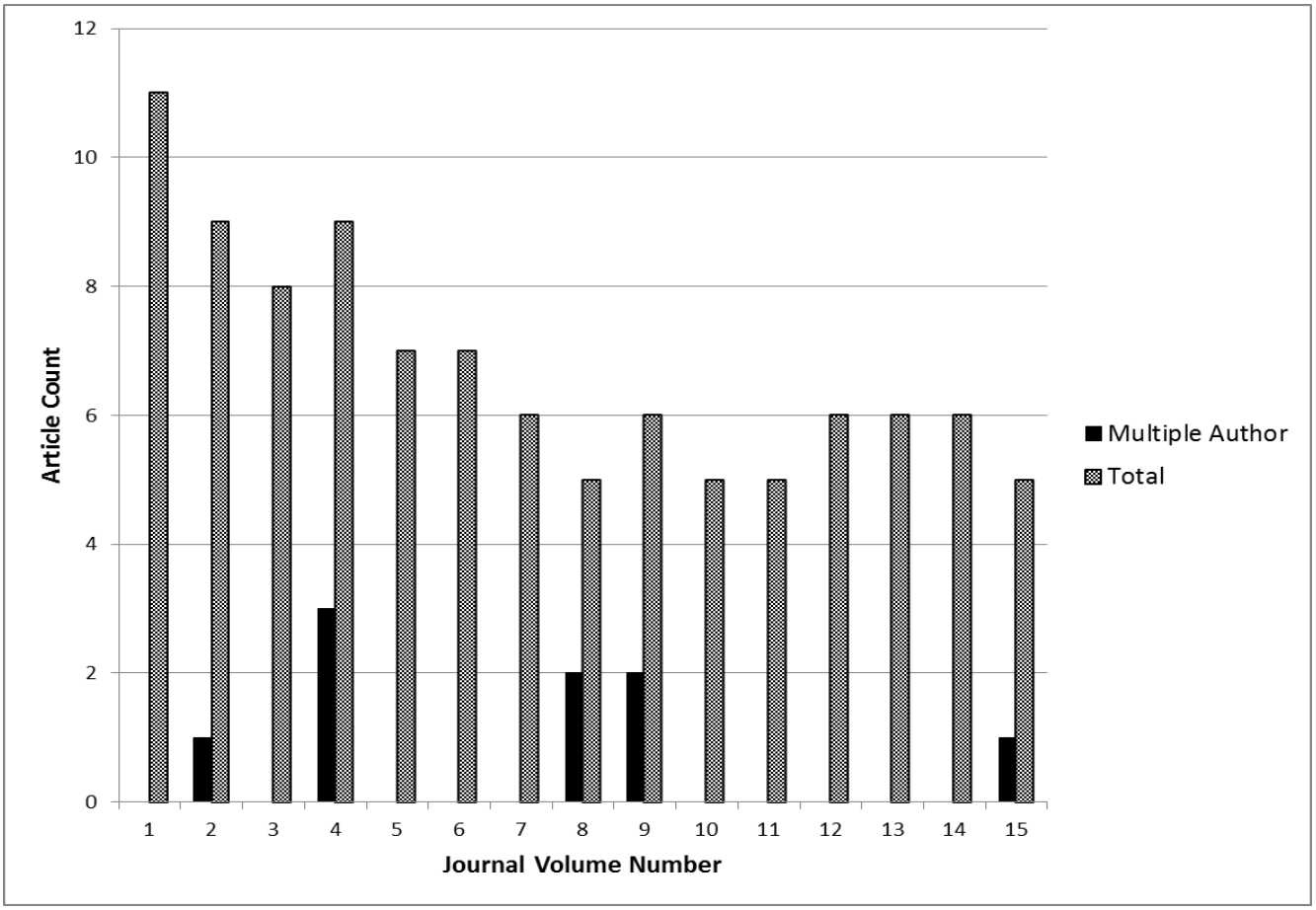

Figure 1: Review of JAMI volumes for articles by multiple authors

Journal	Total articles reviewed	Percentage of single discipline articles	Percentage of interdisciplinary articles	Number of disciplines represented	Disciplines represented in interdisciplinary articles
Journal Association of Music and Imagery	101	91%	9%	4	Psychology, Psychiatry, Physical Medicine, Public Health
Journal of Music Therapy	106	88%	12%	7	Biology, Physiotherapy, Psychology, Occupational Therapy, Speech Therapy, Statistics
Nordic Journal of Music Therapy	256	89%	11%	15	Psychoacoustics, Musicology, General Practice Medicine, Psychiatry, Psychology, Statistician, Audiology, Neurology, Neonatology, Public Health, Social Services, Otolaryngology, Pediatrics, Social Work, Physical Therapy

Table 1: Interprofessional journal analysis

Journal	Total articles reviewed	Percentage of single discipline articles	Percentage of interdisciplinary articles	Disciplines represented in interdisciplinary articles
Journal of the American Medical Association	189	33%	67%	Law, Nursing, Public Health, Psychology, Biomedical Engineering, Health Sciences, Healthcare Administration, Statistics, Medicine, Osteopathic Medicine, Biology, Respiratory Therapy, Veterinary Medicine, Dietetics, Pharmacy, Addictions, Business Administration, Mindfulness-Based Stress Reduction
Critical Care Medicine	513	35%	65%	Nursing, Public Health, Psychology, Biomedical Engineering, Health Sciences, Healthcare Administration, Statistics, Medicine, Osteopathic Medicine, Biology, Respiratory Therapy, Dietetics, Pharmacy, Social Work, Infection Control, Economics
Health Services Research	335	22%	78%	Nursing, Public Health, Psychology, Biomedical Engineering, Business Administration, Health Sciences, Healthcare Administration, Statistics, Medicine, Osteopathic Medicine, Biology, Respiratory Therapy, Dietetics, Pharmacy, Social Work

Table 2: Related healthcare journal analysis

The data indicates that the percentage of interprofessional publications varies significantly. The healthcare-related journals analysed included *Journal of the American Medical Association, Critical Care Medicine,* and *Health Sciences Research.* Table 2 illustrates there is a much higher percentage of interprofessional publications (65-78%) in these journals, while in the leading music therapy journals this is around 11-12% and in the *Journal of the Association for Music and Imagery,* 9%. While this analysis provides a glimpse into interprofessional publication practices, further understanding of the nature of differing collaborative practices is vital for recognising the innate benefits and challenges of implementing interprofessional research.

The data indicates that the percentage of interprofessional publications varies significantly. The healthcare-related journals analysed included *Journal of the American Medical Association, Critical Care Medicine,* and *Health Sciences Research.* Table 2 illustrates there is a much higher percentage of interprofessional publications (65-78%) in these journals, while in the leading music therapy journals this is around 11-12% and in the *Journal of the Association for Music and Imagery,* .09%. While this analysis provides a glimpse into interprofessional publication practices, further understanding of the nature of differing collaborative practices is vital for recognising the innate benefits and challenges of implementing interprofessional research.

The analysis of related healthcare journals in Table 2 suggests a higher percentage of interprofessional collaboration outside of the GIM field. In fact, the positive effects of such interprofessional collaboration in the health sector have been studied by various authors. O'Sullivan, Stoddard and Kalishman (2010) identify six benefits of collaborative practice. These include: 1) identifying and determining solutions to complex societal issues; 2) addressing the complex issues that a single discipline is not able to; 3) increasing productivity; 4) greater flexibility and responsivity

with multiple disciplines; 5) fostering innovation and enhanced use of technologies; and 6) being given priority by funding agencies. Remedios and Gummesson (2018) explore how interprofessional collaboration allows clinicians and researchers to learn from each other, thus fostering new knowledge, new technology, and new solutions.

In addition to understanding the benefits of collaborative clinical work, it is helpful to understand the type of collaborative practice and research development that may be warranted in any situation. Recognising there are different ways that professionals may collaborate and work together can help provide clarity in the overall development, implementation and evaluation process, and provide greater insight into how to best work together. It is likely that many professionals do not learn these collaborative skills within their academic training programmes and are left to informally discover and experiment with how to collaborate. However, we believe that these competencies are vital for interprofessional teams to utilise, leading to successful teams and successful teamwork.

COMPETENCIES AND PRACTICES IN COLLABORATIVE TEAMWORK

Where good and effective teamwork occurs, interprofessional collaborative practice has been shown to improve the quality of client/patient care (World Health Organization, 2010). It is clear that certain competencies are required in order to engage successfully in interprofessional collaborative practice. According to the World Health Organization (WHO), these competencies include 1) interprofessional communication; 2) a patient / client / family / community-centred care approach; 3) role clarification; 4) good team functioning; 5) collaborative leadership; and 6) skills in interprofessional conflict resolution (WHO, 2010). While collaborative work is increasingly valued and revered in research, healthcare and clinical practices, most training programmes do not teach professionals how to work in this manner (Bindler, Richardson, Daratha & Wordell, 2012). To date, clinicians and researchers have typically needed to discover these competencies through informal trial and error experiences.

Applying these competencies in order to achieve interprofessional collaborative practice within a team requires the qualities and skills of respect, trust, shared decision-making and partnerships (World Health Organization, 2010). Hopkins and Spuhler (2009) identify four essential elements for effective interprofessional teams. First, the team needs to have shared goals, providing a reason for their work together. Second, there needs to be a sense of interdependence, and a recognition that individuals can arrive at mutual goals. Third, commitment from each collaborator needs to be demonstrated, as well as a shared understanding that working together leads to more effective decisions. Finally, there needs to be a sense of accountability, with a shared commitment as a functioning unit. Further characteristics determining team effectiveness include that each of the members sees their role as important to the team, that there is open communication, that a sense of autonomy exists, and that there is an equality of resources for team members (Bridges, Davidson, Odegard, Maki & Tomkowiak, 2011). Poor interprofessional collaboration can have a negative impact on the quality of care provided to patients (Bridges et al., 2011). It is important to recognise that, by nature, collaboration contains two key elements: cooperation and assertiveness. Cooperation is evidenced in team members working together to produce a mutual benefit or for common purpose, and assertiveness facilitates the exchange of knowledge and information among professionals

(Hopkins & Spuhler, 2009). We believe that these same competencies, qualities, and skills potentially apply to both interprofessional research and practice.

GIM competencies and training standards

The Competencies, Training Program Standards, and Procedures for The Bonny Method of GIM (AMI, 2018) include several competencies that relate to collaborative practices in GIM. These include seeking supervision and consultation when needed and communicating with other professionals. There are also competencies that relate more specifically to applying emerging knowledge from professional literature and maintaining one's knowledge of relevant current research and literature. These competencies focus on the professional practice of GIM and one's own professional growth and development as a GIM practitioner, and the need to maintain one's understanding of the evidence in order to remain knowledgeable about developments in the field, as well as to be able to communicate with professionals from other disciplines.

The competencies indicate that GIM practitioners should abide by the code of ethics of their primary profession, whether that be counselling, music therapy, psychology or social work. The Association for Music and Imagery (AMI) competencies are focused on the clinical practice of GIM and do not venture into the area of research. Despite the lack of direction in the competencies related to research practice, some practitioners trained in GIM are engaged in research and, as the literature shows, much is undertaken by single researchers and is not collaborative or interprofessional in nature. As a result, we seek to explore the benefits of and rationale behind interprofessional collaboration for GIM in this current article.

WHY IS INTERPROFESSIONAL COLLABORATION IMPORTANT?

Previous authors have identified that the expertise to explore problems and questions may not be confined to a single discipline or approach. Further, the complex and changing world we live in requires new methods and approaches to address the scope of these issues (Repko, 2012). Interprofessional research builds on the integrated approach inherent in interprofessional practices, as noted above. Interprofessional research is most closely related to the definition by Aboelela and colleagues (2007) of transdisciplinary research, which includes sharing resources for a common outcome that can be applied across disciplines. Klein (2010) urges that collaborative research holds the answers to our urgent social issues, supporting the discovery of greater solutions. Working in an interprofessional research group can often be more productive than working alone (Aboelela et al., 2007; Short et al., 2009; Short et al., 2015; Strober, 2011; Tracy & Chlan, 2013). Combining ideas within a collaborative group can provide flexibility in thinking and approach, leading to innovative solutions. In addition, research funding agencies typically prioritise and reward interprofessional and collaborative research. For example, the National Institutes of Health (NIH) in the USA (NIH, 2013), and ARC Linkage and NHMRC Partnership grants in Australia strongly encourage researchers to work across disciplines.

An increasing interest in integrative and non-pharmacological approaches is providing momentum for the implementation of collaborative research practices (Heiderscheit & Chlan, 2014). Typically, collaborative healthcare research has the most significant impact and leads to translational

research, embedding the research back into the practical real-world situation to improve healthcare (Bindler et al., 2012; Kilgore & Langford, 2009; O'Sullivan, Stoddard & Kalishman, 2010; Strober, 2011). Additionally, exploring various and diverse perspectives can foster the design of a research trajectory which strives to answer multiple research questions or priorities for a specific clinical population (Magee & Heiderscheit, 2016; Shoemark, 2013). Collaborating across disciplines fosters the sharing of new ideas and sets the stage for disseminating research results to a broader scope of disciplines rather than to a single discipline (Magee & Heiderscheit, 2016).

UNDERTAKING INTERPROFESSIONAL COLLABORATIVE RESEARCH

From our experience, interprofessional collaborative research is hard work. In order to be successful, there is a need for good project management skills, since typically additional time is required to achieve agreement and milestones within a collaborative team. Additionally, within the interprofessional collaborative research team, personal and professional conflicts may arise, and appropriate skills must be used to address and defuse such situations. Although some discipline training programs provide interprofessional educational experiences, typically most practitioners are trained within a uni-disciplinary (single discipline) model, an approach which considers each profession to be an individual silo of knowledge and practice. Typically, governance structures such as health systems, infrastructures and academic expectations reward a uni-disciplinary approach, providing incentives, resources, facilities, and budget policies within a single professional area. Regardless of these challenges, the need for interprofessional translational research with sustainable outcomes remains, in order to provide best practice for patient care.

A successful interprofessional collaborative research team is more than a collection of professionals from various disciplines working together. To be effective, considerable effort and thought needs to be put into the creation and management of the interprofessional research team. Typically, all research studies need a principal investigator (PI) who will lead and manage the study (Magee & Heiderscheit, 2016). Additionally, the PI will determine choices about the potential collaborators for the study.

O'Sullivan, Stoddard, and Kalishman (2010) have looked carefully at the creation of an interprofessional research team. They state that it is important to clarify motives, values, beliefs about science, to define appropriate data and accepted methods for research, to pay attention to group process and leadership variables, and to consider relationships within the team (O'Sullivan, Stoddard & Kalishman, 2010). Their guidelines for the development and management of interprofessional research teams are as follows:

- *Careful selection of team members*: Ensure team members possess the expertise and skill needed for the research project, that they value collaboration and can work collaboratively.
- *Clarification of roles and expectations*: Each member of the team understands their role in the overall scope of the research project and what is expected of them throughout the project.
- *Facilitate regular communication*: Facilitate regular and clear communication to ensure the project is consistent with projected timeline and team members are informed of any updates or changes regarding the project, as this may impact their effort.

- *Develop relationships and trust among team members*: Fostering trust among team members helps to ensure the team will be able to address challenges that occur throughout the research project.
- *Examine effectiveness of team functioning*: Determine if each member of the team is and continues to be effective in their role on the project. If a team member is no longer effective and this is not addressed, it can undermine trust and collaborative efforts of the team.
- *Ensure "home" school/college is tolerant of collaboration*: It supports effective engagement if each discipline can engage with an interprofessional team and this is valued as a part of their own academic or clinical practice. (O'Sullivan, Stoddard & Kalishman, 2010)

Naturally, change can occur over time within the collaborative research team. In the process of the unfolding research project, there needs to be ongoing clarification, trust, and careful feedback. The process might also require culture change (O'Sullivan, Stoddard & Kalishman, 2010). Leadership within research teams on a particular project have been seen as having eight stages of change (Hopkins, Spuhler & Thomsen, 2007; see Table 3):

Stage 1	Establish a sense of urgency
Stage 2	Create a powerful guiding coalition
Stage 3	Create a vision
Stage 4	Communicate the vision
Stage 5	Empower others to act on the vision
Stage 6	Plan for and create short-term wins
Stage 7	Consolidate improvements and produce more change
Stage 8	Institutionalise new approaches

Table 3: Stages of change in leading research teams (Hopkins, Spuhler & Thomsen, 2007)

Understanding each of these stages of changing needs within a collaborative research project provides the GIM practitioner-researcher with guidance as to their leadership tasks in order to support timely and effective research, and provides a theoretical framework which can further inform and support GIM researchers as they work to collaborate interprofessionally.

CASE ILLUSTRATIONS OF INTER-PROFESSIONAL COLLABORATIVE RESEARCH IN GIM

Below we examine two case studies, which show different levels of interprofessional involvement in collaborative GIM research. These case studies describe our own individual research projects. The review of these cases is contextualised by using applicable elements contained within the guidelines for the development and management of interprofessional research teams by O'Sullivan, Stoddard &

Kalishman (2010). It is important to note that in both of these case illustrations, we were principal investigators and also trained facilitators of the GIM sessions.

Case 1: GIM and cardiac rehabilitation

This case illustration explores how GIM can affect recovery after cardiothoracic surgery (coronary artery bypass grafting and valve replacement) by addressing meaning related to perceptions of the body, and emotional effects related to the recovery process. The initial project was Annie's PhD study, which subsequently developed into further related projects (Short, 2003, 2015; Short, Gibb, Fildes & Holmes, 2013; Short, Gibb & Holmes, 2011). The study was conducted at two major teaching hospitals, recruiting six participants for six weekly GIM sessions which commenced 6-12 weeks post-surgery. Participants were aged 57-72 years, with three female and two from non-English speaking backgrounds as part of a stratified sample approach. Full ethical endorsements were obtained. All GIM sessions were audiotaped and transcribed (total 31 sessions). Within a carefully devised qualitative approach, data were analysed as part of a three-stage process within narrative thematic, semiotic and Jungian frameworks (Short, Gibb & Holmes, 2011). Results suggested a role for GIM in integrating and reflecting on experiences including returning to pre-surgery activity and lifestyle activities (Short, Gibb, Fildes & Holmes, 2013). Subsequent study development focused on additional applications to cardiac care and cardiac rehabilitation.

Collaborative involvement

In Alison's PhD study, collaborators were Alison, her academic supervisor, and academic nurse consultants. There was little engagement from other hospital staff, despite efforts in this regard. Later, Alison found out that one particular hospital cardiac rehabilitation nurse had advocated for the project, which contributed strongly to hospital ethics approvals. This senior nurse was personally interested in psychosocial care, and herself went on to undertake training and registration in clinical psychology. In both study hospitals the cardiac rehabilitation nurses were very supportive, actively involved in recruitment, and enabled access to hospital rooms by managing bookings for the GIM sessions. Networking resources from Alison's previous music therapy work in another part of one of the hospitals were used to enhance credibility with hospital workers for this project. In line with ethics approvals, Alison was not able to access patient notes/charts since she was not regularly employed in cardiac care, relying entirely on patient self-report and verbal communication from the cardiac rehabilitation nurses. These nurses also invited Alison to present her findings at the cardiac rehabilitation conference, leading to a project summary being written and published for the Australian Cardiac Rehabilitation Association Newsletter. Collaborators engaged in recruitment, advice about writing up, co-authorship, further development of related new projects.

Communication and challenges within the team

As an individual PhD project, Alison's initial approach to the team was as a deferential research student negotiating early phases of a project based on no previous existing evidence. She typically only communicated with the cardiac rehabilitation nurses and the patients, with brief presentations to the

cardiac rehabilitation programme for recruitment; no further opportunities for broader collaboration in the team were presented. Initial challenges included gatekeeping, gaining access to activities and room bookings in the clinical environment, recruiting of patients, and regular communication with staff. There was a lack of physical storage space, with all equipment being transported for each session, including blankets and pillows. Finding a suitable quiet room for GIM sessions in a large metropolitan hospital was a challenge; some sessions took place in an oncology teaching area, which, on occasion, led to interruptions and being asked to transfer to another room in the middle of a session, with impacts on patient experiences of the GIM sessions.

This case demonstrates that building relationships with professionals from other disciplines is essential for the implementation of a project in the area of cardiac rehabilitation. The value of collaborating with the cardiac rehabilitation nurses helped to inform subsequent projects which commenced with a broader outlining of the patients' clinical needs and the overall research approach. The team was expanded to involve a cardiologist, another cardiac rehabilitation nurse, the peak body Heart Foundation, other research nurses and community providers. Collaborative team assistance included practical advice about implementation and how to engage aspects of the study within the existing workload, and collaborative team review of the draft proposal before submission.

Case 2: GIM in addictions treatment

This case illustration explores the use of GIM with individuals in addictions treatment (Heiderscheit, 2005, 2017). The initial project was Alison's PhD study which was followed by a subsequent exploration of GIM in eating disorder treatment (Heiderscheit, 2015a, 2015b). The focus of this study utilising GIM was to explore how addressing the underlying issues associated with addiction impacts salutogenesis, physiology and interpersonal problems, including:) impacts on sense of coherence; 2) improvements in clients' ability to cope; 3) improvements in interpersonal relationships; and 4) improvements in clients' health.

The study was conducted in an inpatient addictions treatment program. Nineteen subjects consented and were randomised into either the experimental (n = 10) or control group (n = 9). The clients included four females and fifteen males, ranging in age from 46 to 64. The clients in the experimental group received weekly GIM sessions throughout the course of their treatment, which ranged from 25-60 days. Clients in the control group received the usual care. Pre- and post-tests included the Inventory of Interpersonal Problems, the Sense of Coherence Scale, and Salivary Immunoglobulin A.

The findings from the study suggest that in addictions treatment, GIM can address interpersonal issues, specifically those related to control and being distant in relationships. They also indicate that clients experience a greater sense of comprehension of the events that occur in their life, as well as a trend towards feeling better able to manage life events. Results also demonstrate a trend towards improving health through sIgA measure (Heiderscheit, 2005; Heiderscheit, 2017). Subsequent analysis of this data led to collaboration in analysing imagery themes and content (Heiderscheit & Swanson, 2018) and supported the development of a study utilising GIM with clients in eating disorder treatment.

Collaborative involvement

In this PhD study, (Heiderscheit, 2005; Heiderscheit, 2017) the main collaborators were Annie and her faculty supervisor. Additional collaborators included the treatment facility, a community music therapist, a nurse manager, the treatment coordinator, the health unit coordinator, the patients, a statistician, a laboratory coordinator and laboratory staff. Annie was invited to conduct research at the collaborating facility. Facility staff were engaged in the process prior to recruitment and throughout the study to coordinate patient schedules for GIM sessions. The laboratory was contacted prior to initiating the study to secure space, drop off of saliva samples, and to ensure proper storage and analysis of assays. The statistician was engaged following data collection to conduct statistical analysis. Collaborators were acknowledged in publications.

Communication and challenges within the team

Communication and respect within the team were maintained by recognising the need for each individual's expertise and role in the process. As Primary Investigator, Annie served as the point person for coordination, since most collaborators did not need to interact directly with each other. The PI needed to remain in contact with each collaborator to coordinate study engagement. Given the complex team involved, considerable effort was required to maintain communication. It was important to recognise that each person works differently and to understand how best to interface with each collaborator. It was also important to maintain the leadership role in order to ensure consistency within the project.

DISCUSSION

Effective interprofessional collaborative research requires a unique set of skills from each team member. Not only does this type of research depend on each team member sharing their expertise, but the success of the team is contingent upon how the team members work together and upon their level of commitment towards working together. While this collaborative process is reliant upon strong leadership, it also requires mutual respect within the team. Developing the skills necessary to engage in successful interprofessional collaborative research requires an investment in working with others to accomplish more than that which a single discipline is able to do.

Case study 1 has shown that an interprofessional approach added value to this project via assistance with recruitment and ethics approval. Additionally, there was clinical information sharing and feedback, including learning the technical language to understand concepts and terminology related to cardiac care. Further linkage to other professionals, including conference presentations, was very helpful. Assistance with the writing of articles and a book chapter was valuable to the outcomes of this project (Short, 2015; Short, Gibb, Fildes & Holmes, 2013; Short, Gibb & Holmes, 2011), as was linkage to additional relevant professionals (medical, nursing, Heart Foundation) and advice about further research project development.

Likewise, within case study 2, an inter-professional approach added value by providing collaborative access to patients and support for recruitment. Using this team approach created a positive and quality experience for patients, and decreased disruptions to patient treatment. This

effective interprofessional team also ensured the high quality of research and the proper management of data and assays.

In terms of the stages of change in leading research teams (Hopkins, Spuhler & Thomsen, 2007), each of these case studies established a sense of necessity related to the need for the project, which was supported by staff agreement to run the study. A team committed to addressing patient needs within the research context was established for each project, especially for Case 2. The creation of the project vision began within the academic setting and unfolded with team support via presentations which created investment and interest in the project. The team was empowered according to their different roles, especially within the recruitment process and in data analysis and laboratory testing for Case 2. Milestones were celebrated within the project, with positive feedback to the team related to achieving these goals. For the specific clients, GIM sessions provided additional individual treatment and assessment opportunities which could be conveyed to the broader treatment team. Feedback via presentations and client/participant comments to the team supported the possibility of ongoing institutional change. This led to team and institutional discussions about further research projects which could build on the cases under discussion. In terms of the research cases which have been presented, effective leadership of teams through all stages of project support has led to enhancements which would not have been possible had the research been conducted by a sole researcher. These enhancements provided additional support with 1) design and development of the project; 2) institutional ethics applications; 3) planning towards implementation; 4) recruitment and data collection; 5) assistance with analysis processes; 6) increased interest in dissemination and applications of results; and 7) further development of research themes to encompass new project development.

While interprofessional collaborative research requires preparation and consideration of potential collaborators who can contribute to the success of the study, the diverse skills that can be utilised in this type of research hold a higher impact than a uni-disciplinary approach. Inviting people from other disciplines to collaborate on a research study allows for discoveries that are possible through emerging technologies, diverse dissemination of study findings, and the fostering of change in patient care. The community of GIM fellows conducting research is a small community. Implementing interprofessional research around GIM provides opportunities to better understand how GIM impacts healing, health and wellbeing. It broadens the understanding of GIM by various disciplines, and explores the use of GIM in a greater variety of clinical settings. Although it is challenging, there are great benefits to interprofessional collaborative research in GIM. Our initial evaluation of existing interprofessional collaborative behaviour has been limited by the availability of measures of interprofessional collaborative research, and therefore we have used metrics related to authorship as a proxy. This occurs in the broader context where proxy measures related to research development have been used when little information currently exists (see, for example, Cooke, 2005).

Interprofessional collaborative research in GIM has the potential to foster new directions in research as GIM practitioners explore beyond standard clinical practice for GIM. Additionally, through communication and discovery with colleagues from other disciplines, GIM clinicians and researchers can begin to explore new approaches to research knowledge generation (epistemology). Concomitantly, it is expected that interprofessional collaborative research in GIM can explore and

further develop innovative methodology, including new approaches to data collection and analysis processes.

Future directions

While GIM practitioners may be familiar with interprofessional collaborative clinical practices, further education and training about inter-professional collaborative research practice is warranted. It is envisioned that this could be addressed in a variety of ways, for example, with 1) GIM researchers seeking out and applying for fellowships that provide interprofessional training; and 2) the development of professional development modules and workshops for GIM practitioners. Where possible, GIM researchers should be encouraged to present their interprofessional collaborative research experiences, in order to educate others. In doing so, these presentations help to foster conversation and dialogue, engaging GIM practitioners and researchers in information sharing and opportunities to learn from each other, thereby fostering even greater professional collaboration. Finally, incentives towards the submission of more manuscripts for publications focusing on interprofessional collaboration are needed in order to develop the body of literature and information available to GIM researchers. Taken together, these further directions are expected to address the clear need for GIM practitioners to engage in enhanced interprofessional research practice, leading to a more robust, accessible and professionally embedded body of knowledge available for GIM practice.

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Ελληνική περίληψη | Greek abstract

Διεπαγγελματική έρευνα στη μέθοδο Guided Imagery and Music: Δουλεύοντας συνεργατικά

Alison E. Short | Annie Heiderscheit

ΠΕΡΙΛΗΨΗ

Η διεπαγγελματική συνεργατική έρευνα αποκτά δυναμική ως κορυφαία ερευνητική πρακτική. Οι προκλήσεις που θέτει η πολύπλοκη φύση του κόσμου και η υγειονομική περίθαλψη απαιτούν νέες και διαφορετικές λύσεις. Απαιτούν ποικιλόμορφες δεξιότητες και το συλλογικό έργο πολλαπλών κλάδων. Ως αποτέλεσμα, οι φορείς χρηματοδότησης δίνουν προτεραιότητα στη διεπαγγελματική συνεργατική έρευνα αντί της έρευνας εντός ενός επιστημονικού κλάδου. Αυτό το άρθρο επικεντρώνεται σε μια μέθοδο μουσικοθεραπευτικής πρακτικής: τη μέθοδο Guided Imagery and Music (GIM) της Bonny, όπου οι θεραπευτές συνήθως εργάζονται μόνοι τους. Το άρθρο εξετάζει τη διεπαγγελματική συνεργασία στην τρέχουσα ερευνητική βιβλιογραφία της μεθόδου GIM και ερευνά πώς αυτή η μέθοδος μπορεί να επωφεληθεί από αυτόν τον τύπο ερευνητικής πρακτικής. Οι συγγραφείς εντοπίζουν και συζητούν τις ικανότητες και τις δεξιότητες που απαιτούνται για την επιτυχή συμμετοχή σε διεπαγγελματική συνεργατική έρευνα και παρέχουν μια ανάλυση δύο περιπτώσεων διεπαγγελματικής ερευνητικής πρακτικής στη μέθοδο GIM.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ

Guided Imagery and Music (GIM), διεπαγγελματική προσέγγιση, έρευνα, συνεργασία

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ARTICLE

Do Problem-Based Learning approaches provide effective educational interventions for music therapy training courses? Experiences from an action research project at the University of South Wales

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ABSTRACT

A Problem-Based Learning (PBL) approach was piloted across the Master's in Music Therapy programme at the University of South Wales. The main aim of the project was to explore whether the development of music therapy students' practical and clinical reasoning skills could be enhanced by using a PBL approach during training. Case scenarios integrating many aspects of required learning covering key curriculum areas were developed and used in PBL sessions with each year group. The sessions were facilitated by a trained PBL facilitator and observed by the course leader. Students completed a pre- and post-PBL survey, giving information about their confidence in several areas of clinical reasoning. Feedback was also gathered on their views on the PBL approach and effects on their learning experience. Results show that engaging with the PBL process had a positive effect on students' clinical reasoning confidence, and that students valued the experience.

KEYWORDS

Problem-Based Learning,
clinical reasoning skills,
music therapy training,
research

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INTRODUCTION

An essential and significant part of all music therapy training programmes in the UK is the clinical placement. Clinical placements as part of master's music therapy trainings in the UK are governed by the regulations of both clinical and university settings. These may vary according to each institution's requirements, but all courses ensure students attain the HCPC (Health and Care Professions Council) Standards of Proficiency (HCPC, 2013) by the end of their training. By the time students become practising music therapists, they will have usually worked in a variety of settings covering diverse areas of clinical practice.

It is widely recognised that clinical reasoning ability is a key skill for effective clinical work as music therapists. A roundtable presentation at the British Association for Music Therapy (BAMT) conference in 2014 (Bunt, Coombes, Hung Hsu, Lindeck, Loth, Procter, Twomey, Vaz and Watson) discussed this in relation to the development of clinical skills, current music therapy pedagogical practices and matters relating to employability. Music therapy students need to acquire a range of clinical skills as they develop their work with their clients and build their own therapeutic personas. Karen Goodman (2015) highlights the importance of these, including personal skills, therapy skills and music skills. The student music therapist then is charged with not only having sufficient musicianship to effectively meet the client in music but must also be able to select the most appropriate way of connecting with the client, using knowledge of the client's issues. There is therefore a complex interplay of skills needed that it is challenging to acquire and put into practice. The panel of the aforementioned roundtable, which was comprised of master's of music therapy programme trainers, researchers, employers and recent music therapy graduates, highlighted how clinical reasoning ability was an important skill required by employers/commissioners of music therapy. Ming Hung Hsu proffered the view that while employers realised that newly qualified music therapists could not have acquired in-depth knowledge about all the client groups they might be working with, it was important that there be an understanding of how such knowledge could be acquired.

Felicity Baker describes clinical reasoning as a practice that involves "integrating theory, evidence-based research (when it exists), and knowledge formed from prior experiences" (Baker, 2007, p. 28). When Music Therapy students begin their clinical practice during training, however, their prior experiences are limited. How then can they acquire and develop clinical reasoning skills during their years of training yet still develop robust practice that will enable them to gain employment and work effectively in clinical environments?

When reviewing the music therapy training programme at the University of Queensland, Baker (2007) observed that no component of the training specifically focused on developing clinical reasoning. This was also noted in a review of the MA Music Therapy course at the University of South Wales (USW) in 2014. There is an ongoing debate around the effectiveness of Practice-Based Learning (PBL) in affecting students' clinical reasoning in many professions, but these words from an occupational therapy student in a study of student perspectives of PBL, and in particular how it affects clinical reasoning, are particularly striking: "I think clinical reasoning is taking what you've learned in

PBL and being able to apply it to each individual person and a person as a whole, not just a diagnosis or a disability" (Hammel et al., 1998, p. 204). In an endeavour to foster and build clinical reasoning skills required not only while training but when in clinical practice, it was decided to pilot a PBL action-research project on the MA Music Therapy course at USW. The reasoning behind selecting this particular pedagogical method is set out below. The project was carried out over the academic year 2014-2015, and was funded by the CELT (Centre of Excellence in Learning and Teaching) at USW. It piloted the use of PBL with students in all years of the three-year part-time MA Music Therapy course and became the dissertation project of a Year 3 student who was also a trained PBL facilitator.

PROBLEM-BASED LEARNING (PBL)

The body of PBL pedagogy is vast and continues to grow. It covers many subject areas, approaches and educational settings. PBL is considered by David Boud to be "the most important development since the move of professional training into educational institutions". Yet he goes on to question why it continues to be "so attractive and yet so controversial" (Boud, 1997, p. 1).

Before covering some aspects of how PBL may be effective in developing music therapy students' clinical reasoning skills, it is useful to look at basic principles of PBL and models considered within that umbrella term. A definition of PBL by Howard Barrows, an early pioneer of this method in medical education, outlines its main characteristics as follows:

- learning is student-centred
- learning occurs in small groups
- teachers act as facilitators, guides or tutors
- problems form the organising focus and stimulus for learning
- problems are the vehicle for the development of clinical problem-solving skills (Barrows, 1996).

Other characteristics common to most forms of PBL and its hybrids include the acknowledgement of the experience and knowledge of learners, and students taking responsibility for their own learning under the guidance of a tutor. Key aims are the integration of theory with practice and the crossing of discipline boundaries. There is a focus on the process of knowledge acquisition rather than the products of the process. During the PBL process there is a change in staff roles from instructor to facilitator, and often a change from staff assessments of outcomes of learning to student self-/peer-assessment. There is also more emphasis on communication and interpersonal skills within the learning process (Savin-Baden, 2000).

PBL can be considered as a form of small-group learning which offers students the experience of working in a group of their peers with a trained facilitator. The stimulus for learning, the 'problem' in PBL, is presented in an appropriate format for the discipline and may use a variety of media. In medicine, for example, it might be "a written case, case vignette, standardised (also called simulated) patient, computer simulation, videotape" (Barrows, 1996, p, 5). Students are presented with the 'problem' in a similar way to how clients or patients present in reality with symptoms, complaints, issues etc., within a case or clinical vignette. Identification of what students in the group already know and what they then need to find out to solve the problem(s) are at the heart of the PBL process. From

this process, learning objectives are generated which are then researched by the group individually in self-directed learning (SDL), and brought back for discussion, debate and integration. Thus "students are expected to learn from the world's knowledge and accumulated expertise by virtue of their own study and research, just as real practitioners do" (Barrows, 1996, p. 6).

To summarise, PBL cases integrate aspects of required learning into a case scenario or clinical vignette, thereby providing a model for clinical reasoning in professional practice. Overall, then, "PBL can be seen as an example of a learning environment that fosters active, constructive, contextual, cooperative, and goal-directed learning" (Moust et al., 2005, p. 667). Once decisions were made on the subject areas, topics and levels of case complexity which were to be covered using a PBL approach, the next steps were to identify, modify and/or develop the required number of appropriate case scenarios or clinical vignettes. According to John Savery and Thomas Duffy, when generating problems for use in PBL "there are two guiding forces". These are: "to raise the concepts and principles relevant to the content domain" and, secondly, that "the problems should be real" (Savery & Duffy, 2001, p. 11). In many professions the problems can be based on real patients or amalgamations of patients/clients which raise the important points of content which faculty/academics decide are important for students to cover. Learners will tend to become more engaged with real problems, and their motivation to research the learning outcomes arising from it will be higher. Careful wording of case scenarios and the information within them will result in more effective learning being stimulated within the group and individuals.

A form of PBL, which is widely used and was first developed for use with medical students in Maastricht University, is the seven-step model (see Table 1). A new UK medical school adapted the same original seven-step model during its first 12 years of operation, adding an extra step of integration and transfer which aims to test the transferability of students' learning. This extra step involves similar cases to the PBL case scenario being introduced, as well as directed questions asked of the students before the final (now eighth) step. In the USW PBL project the basic seven-step model was used, but with modifications in the Year 2 and Year 3 student groups to include directed tasks which may also reinforce students' learning. As mentioned above with the medical students, adding this extra step was an attempt to influence the development of transferability of learning while the clinical placements were being undertaken. In Year 1, the pre-clinical phase, the original seven-step model was used, with emphasis placed on the concept-mapping. Concept-mapping as an activity is a way that students can visualise, organise and, thus, reinforce their learning during the SDL sharing stage of PBL. However, Geoff Norman points out that when students reinforce learning in the context of a single case or problem it may lead to later problems in transferring that learning to other scenarios (Norman, 2009). Thus, it is clear that there is a need to give students a variety of relevant problems and tasks which allow them to develop their transfer skills. Year 2 and Year 3 students were given relevant directed simulated tasks which reinforced their learning and practice in transferring learning to other clinical situations.

DESIGN, RESEARCH METHODOLOGY AND DATA COLLECTION

In summary, the USW PBL project's research aims were to explore whether a PBL approach was feasible in music therapy training at USW, and to find out whether it could help music therapy students

at different levels in their training prepare for clinical placements and future professional work. A key area for research was to find out whether music therapy students' confidence in their practical clinical reasoning skills used in the planning and delivery of music therapy interventions could be enhanced by using a PBL approach during training. The project also aimed to explore what perceptions the USW music therapy students had of PBL, its effects (if any) on their learning experience, and the factors which influenced those effects.

Steps	Activities
1	• Revealing the case scenario, which is read out by a group member • Clarification of terms and definition of what the case is about
2	• Brainstorming all possible aspects of the case • One of the group records (scribes) all discussion points on a whiteboard • Discussion of key issues arising from the case
3	• Identification of prior learning, i.e. what students already know
4	• Identification of areas which students need to find out more about • Formulation of learning objectives to be researched by each member of the group in their self-directed learning
5	Step 5 is carried out by students between PBL sessions one and two. • In between the first and second PBL session students are expected to research all the learning objectives formulated collaboratively by the group during their self-directed learning (SDL) • This allows the group to come to the second PBL session ready to feed back, share and exchange information
6	• Sharing results of SDL: students challenge, construct and fill gaps in their learning • Identify sources • Issues are debated, different opinions discussed/challenged/defended and consensus reached if/when there is confusion
7	This step has slight variations in each year related to an integrated clinical task or absence of it. • Concept map (Year 1) or task-based activity (Years 2 and 3) • Feedback

Table 1: The Maastricht PBL seven-step model with a brief explanation of each step

Action research (AR) was chosen as the research methodology since the project mapped against many of AR's main characteristics. It was practice-based, focused on improving learning, was collaborative, and could potentially contribute to social and cultural transformation. (McNiff, 2010). According to Paul McIntosh, action research "becomes a way of being that is full of potential, surprises and unpredictability, so absolute answers to questions become meaningless, because whatever is found becomes a new question" (McIntosh, 2010, p. 37). Since reflection is a fundamental part of music therapy practice, (Wheeler, 2002), the choice of an approach which makes use of the ability to think reflectively seems appropriate. Designing, running and evaluating this educational intervention and action-research project was a valuable exercise in reflection and reflexivity.

Research activities within the USW PBL project included design of the appropriate data collection methods which resulted in use of pre-/post-PBL student questionnaires and focus groups. Choices were made around an appropriate PBL model and subject area for each year group. The topic of each case scenario followed the subject that had been outlined in each year's timetable content. For example, in Year 1, at that point in the year, the students would have been studying autism and music therapy, so the PBL scenario was designed with this in mind. The same thinking process was used to design the scenarios for Years 2 and 3. A suite of pilot music therapy case scenarios in the agreed PBL format was then developed. Facilitation and delivery of the PBL sessions with students in each year group using the relevant PBL case scenarios was then followed by analysis of the results.

In this project there was a need to obtain answers for USW providing "findings, facts, clear expositions and straightforward policy recommendations" (Delamont, 2012, p. 4), as well as a need to explore freely, with students and staff, this new educational ground. As Tony Greenfield (2002) recommends, the research methods were carefully planned but the researchers remained open to "creative leaps" (Greenfield, 2002, p. 5) throughout, arising from unanticipated directions of travel and thought. A balance between approaches led to the research questions being answered using a combination of qualitative and quantitative methods. The combination of facts, figures and participants' experiences gathered using this mix of research methods led to a clearer picture of the overall effect of the use of a PBL approach in music therapy training in USW. There was also a need to carry out this research within the time constraints of the MA and therefore the study could be considered relatively "short-term" (Bell, 2010, p. 118). To ensure no extra time was being asked of students it was decided that all PBL sessions would be delivered during time slots already in all cohorts' timetables. Ideally a PBL session works well within a two- to three-hour time slot, but due to timetabling constraints this was not possible. All PBL sessions were therefore delivered during the weekly seminar slots of 1.5 hours. They were run over a two-week time period, giving students a week in between sessions one and two in which to carry out their self-directed study activities. Careful timing with the assessment calendar ensured that the sessions did not clash directly with deadlines in other areas of the course, thereby not putting extra pressure on students.

In summary, there were two PBL sessions of 1.5 hours per year group which were delivered in lecture slots over a two-week period. Each group was therefore in PBL sessions for a maximum of three hours. These sessions were delivered at various times over the academic year, with Years 2 and 3 being delivered in December 2014 and Year 1 being the last cohort to experience the PBL sessions during February and March 2015. These time factors, such as reduced session times and timetabling constraints, also produced limitations in terms of opportunities to test the reliability and validity of the various tools used.

The PBL project was designed and carried out by members of the staff/student MA Music Therapy course with input from the CELT department at USW. This included the music therapy course leader, the dissertation supervisor and a third-year student (all of whom are the authors of this paper). This in-house approach introduced a possible and anticipated inbuilt bias both from the researcher's position as well as from the academic staff. Strategies were put in place to counteract this bias where possible, and the researcher's position was clearly stated during the project and during the subsequent analysis, write-up and dissemination. The researcher became aware that her own positions as student/educator/researcher were constantly vying for dominance and influencing her thoughts. It

was also important throughout to recognise the "familiarity problem" as expressed by Sara Delamont (2012) when carrying out any type of educational research.

The participants in this project were music therapy master's students in three separate year cohorts. It was decided that using PBL in all years was something to be aimed for, rather than selecting only one or two of the three years. Using all years as participants would give the project more information in the form of students' experiences and feedback, and would also allow some comparisons across student cohorts at different stages in their learning. Limitations were imposed on this study by the numbers of students in each year. There was no opportunity to design research which compared the effects of PBL contrasted with control groups (with no PBL intervention) of similar sizes and compositions.

The cohorts from Years 1, 2 and 3 were recruited by a combination of initial contact from the course leader and PBL introductory sessions with the course leader and researcher. Students were given opportunities to ask questions and get answers about the project and their potential contribution to it. In terms of subjectivity, bias and ethical issues, some challenges within the Year 3 group were raised which are elaborated below.

Since the decision to replace some lectures with the PBL sessions in each year had already been taken by the course leader, it was important to explain to students the difference between the PBL project as an educational intervention and the research study. Since student participation in the PBL sessions was part of their course (obligatory as part of the expected 100% attendance policy) we wanted to avoid a sense of coercion on the part of any students when they were considering giving consent to their data and experience being used in the research. Information about the project and why it was being carried out was made available through an online site and given to students on paper-based materials within lectures and seminars. An online Music Therapy PBL Moodle site was set up for dissemination of information and to help support students' learning. Each PBL group was given a private online space within which they were able to explore any learning points they identified, and they were able to communicate with each other. The online presentation showed the key points about the PBL approach chosen and what generally happens within the PBL process and sessions.

As a result of the successful recruitment, three different PBL groups of students were set up; one in each year, with all students in each year agreeing to take part. There were eight students in Year 1, eight in Year 2 and five in Year 3. Since the music therapy year groups in each year are no larger than eight it was possible for each year's cohort to work as a single PBL group and there was no need to break them into smaller groups or randomly select participants etc. Depending on a range of factors, PBL groups work well at around six to nine people (Bessant et al., 2013), and so the numbers were almost ideal; although the Year 3 group was reduced to four in one session due to illness. These relatively small groups meant that the amount of data obtained was limited. However, there was a 100% participation rate from all students across all years. This also means that the findings are even more applicable across the programme and more relevant to the USW and its students since all three cohorts invested their interest, time, energy and commitment to this project.

Each PBL case equated to two facilitated PBL sessions and SDL between sessions. Pre- and post-test self-reporting surveys were designed to obtain students' feedback on the following aspects of the project:

- confidence in their clinical reasoning skills (seven questions based on five HCPC SOPs from section 14)
- their anticipation of and the actual experience of the PBL process (three questions)
- whether they would like more of the curriculum delivered using this approach

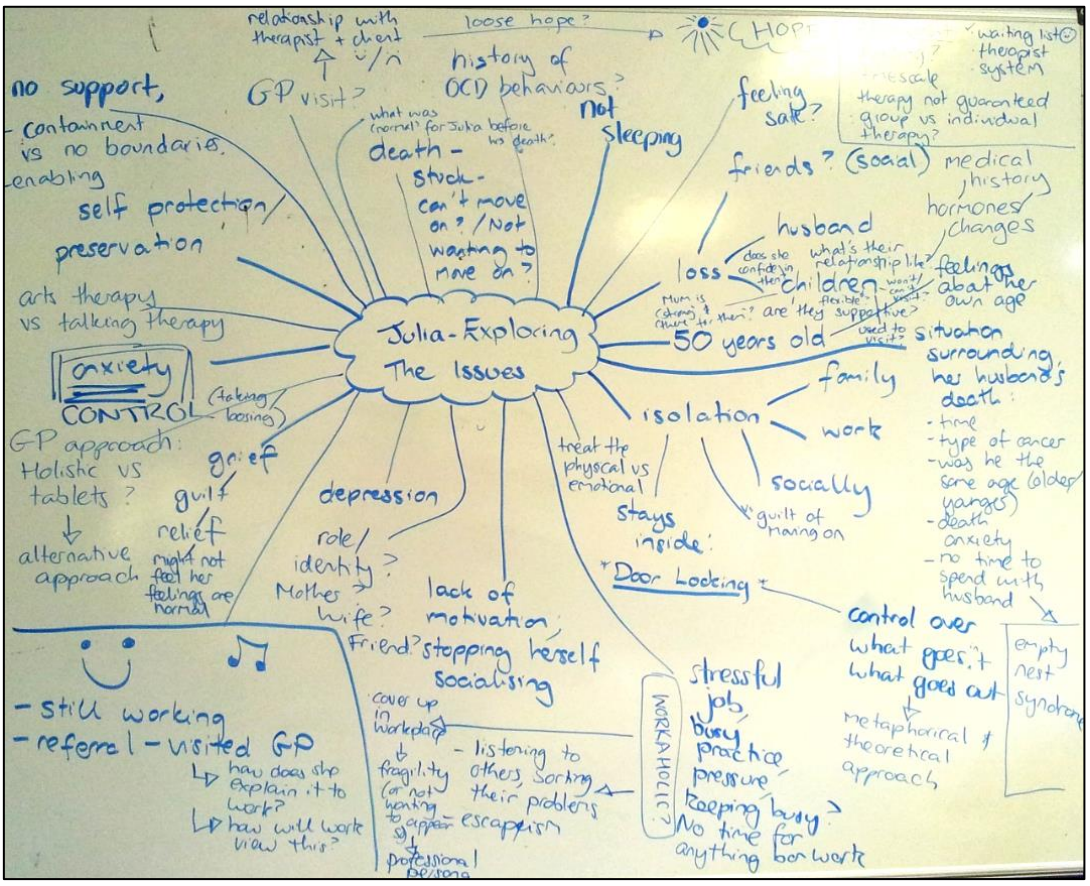
The self-reporting surveys (see Appendix) containing the seven final simplified questions arising from five HCPC SOPs were circulated for comments during the design stage to the course leader and dissertation supervisor. The questions were designed to be clear, unambiguous and yield reliable data. It was decided that the same questions would be used for all years, which would provide comparative data. A Likert scale was used for the clinical reasoning skills confidence questions, ranging from a score of 1 to 5 (1 = strongly disagree, 2 = disagree, 3 = neither agree or disagree, 4 = agree, 5 = strongly agree). Use of such a scale is recommended when data is needed on participants' opinions or attitudes (Tsiris, Pavlicevic & Farrant, 2014). A neutral choice (3) was included to prevent respondents having to choose options of which they were unsure. For the purposes of analysis, using this scale means that positive responses to the questions produce a higher score and the adjacent points on the scale can also be considered to be equidistant.

The self-reporting surveys were administered before and after the PBL cycles and can be seen in the Appendix. Questions covered two main areas: students' confidence in areas of clinical reasoning and attitudes to PBL. Questions were designed to explore students' confidence in their ability to carry out the following areas of clinical reasoning: assessment and diagnostics, conducting music therapy, formulating treatment plans, undertaking investigations, observing and recording users' responses, using research skills to determine actions, and using problem-solving skills to determine actions. Questions around the students' experience of PBL explored their previous experience, anticipation of the effects on their learning (pre-PBL), effects on their learning experience (post-PBL) and whether or not they would prefer more PBL to deliver the music therapy curriculum. A semi-structured focus group was held at the end of the PBL sessions with all of the Year 1 students, to follow up areas of ambiguity arising from the results of the Year 1 surveys.

All sessions were observed by the course leader and another Year 3 student to add another layer of feedback and enrich the evidence base. In each PBL cycle the seven-step model was followed and the various activities within each step can be seen in Table 1. In brief, during the initial PBL session, students were given the appropriate case scenario which was read aloud. (Year 1 and 2 PBL case scenarios can be seen in Box 2). A scribe was then identified from the group to graphically record the discussion points on a whiteboard (see Photograph 1). These discussion points were grouped and used to formulate learning objectives which all members of the group researched and brought back to the second PBL sessions for detailed discussions.

Since a mix of qualitative and quantitative data was collected within this research project there was a mixed approach to its analysis. The Likert scale quantitative data from the survey results was analysed by calculating the frequency of various responses and then converted to percentages. The data was also subjected to basic statistical tests and was presented in graphical and textual format as appropriate. All formats were chosen to give maximum clarity to the results. The qualitative data produced from the students' feedback within sessions, open-text survey responses, facilitators' and

observers' field notes etc. were analysed using a combination of themed analysis and coding to identify key themes arising from the data.



Photograph 1: Brainstorm image and learning objectives (Year 2 PBL Session 1)

- Understand more about music therapy provision for bereaved families in the UK, with a focus on those affected by cancer.
- Gain a better understanding of bereavement processes, with a focus on the disclosure of illness and/or timescale of diagnosis.
- Explore the links between OCD, anxiety and depression.
- What is "empty-nest syndrome"?
- Has there been an increase in the number of professionals (e.g. solicitors) being referred to music therapy through GPs in the UK?

Box 1: Year 2 learning objectives generated from discussion of the Year 2 case scenario

Year 1 Case Scenario: Ben

Ben is a six year-old child who attends a specialist ASD school. He has one younger brother. Parents report that Ben met all of his developmental milestones until the age of 18 months when he began to withdraw and to lose some communicative skills. At present, he is non-verbal and exhibits many stereotypic behaviours including hand-flapping and spitting. He can become upset very easily when routines are challenged leading to an escalation of difficult behaviours including injuring others and himself through biting and pinching. When Ben is calm he is easy to engage

and appears to enjoy relaxing to music. Ben really enjoyed some recent visits by community musicians when they came to his school. His teacher feels that a Music Therapy assessment may help staff understand Ben better. She also wonders if Music Therapy could support Ben in his development of more interactive skills as well as a better way of regulating his emotions.

"Back story" for tutors and academic use: possible areas expected to be explored by students during their discussions and self-directed study:

- Autism
- Communication
- Safeguarding
- Health and Safety
- What Music Therapy approach to use with Ben?

Year 2 Case Scenario: Julia

Julia is a 50-year-old woman who works as a solicitor in a busy practice in a small town. Her husband died of cancer 6 months ago and she has 2 grown children who live and work in London who she doesn't see very often. Over the past few months she has experienced a high level of anxiety which gets worse when she is out of the house. She is not sleeping well and finds it difficult to get up in the morning. She also finds it difficult to leave the house because she has to keep checking the doors are locked. Her lack of motivation is stopping her from doing anything other than her work and her colleagues have stopped asking her to socialise with them. She has been referred by her GP to your organisation for a Music Therapy assessment.

"Back story" for tutors and academic use: possible areas expected to be explored by students during their discussions and self-directed study:

- Depression
- Bereavement
- OCD
- Menopause and empty nest syndrome
- What Music Therapy approach to use with Julia?

Box 2: Year 1 and 2 PBL case scenarios and back stories

INTEGRATION AND ANALYSIS OF DATA SETS

Overall effects as seen in Figure 1 below can be summarised briefly and will be elaborated in the discussion section. The graph in Figure 1 shows the percentage changes across all years for all the questions around aspects of music therapy clinical reasoning confidence when comparing the pre- and post-PBL survey results. It can be seen that the effects on music therapy students' clinical confidence were generally positive or neutral, with only one negative effect (Year 3, Question 5), which is discussed subsequently. In Years 1 and 2, students' confidence in several aspects of their clinical reasoning skills were positively affected by taking part in the PBL process and the effects were more pronounced in year 2. In year 3 taking part in the PBL process resulted in very little change in students' confidence in their clinical reasoning skills. There were differences and similarities across the years which are also discussed below. All year groups responded positively to the PBL process and there was a very clear message that students would like more PBL within the curriculum.

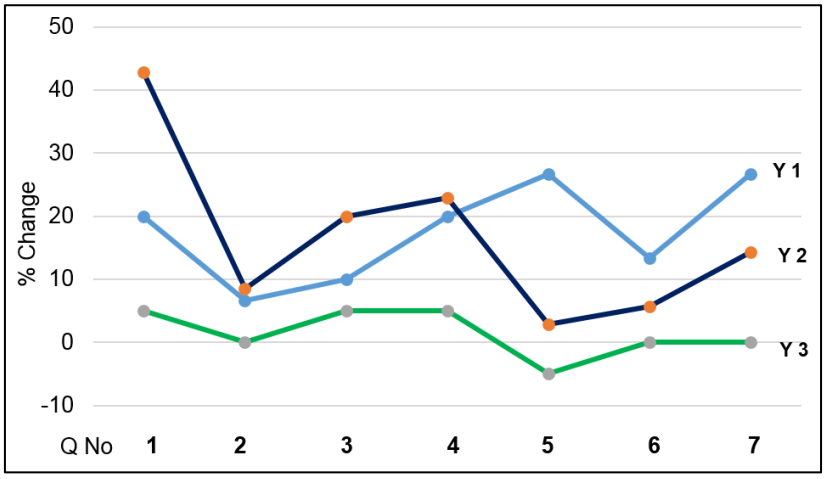


Figure 1: Comparison of the percentage change in confidence in clinical reasoning in music therapy students in Years 1-3

Year 1: Students' confidence in some aspects of clinical reasoning did increase as reported in the data. However, their open text comments expressed some concerns and confusion. Issues raised by students included confusion over the survey questions relating to their discussions, the structure of the case scenario and the design of the tasks within the PBL process. These issues were explored further with the group during a semi-structured focus group soon after the second PBL session had completed and the data from both pre/post PBL surveys was reviewed. Students were given an opportunity to elaborate on several points raised by the results in the Likert scale questions and the open text comments. The discussion was summarised and points agreed and these were circulated soon afterwards for approval and comment. Themes to emerge from the focus group discussions included questionnaire confusion, case scenario construction, issues around directed and non-directed learning and timing.

The Year 1 PBL process was enjoyed by all the group with 100% scoring 4/5 on the Likert Scale in terms of the positive effects on their learning experience. There was an overwhelming agreement (100% scoring 4/5) that they would like more PBL within the curriculum.

Year 2: Students' confidence improved in all aspects of clinical reasoning. Additionally, the PBL process was experienced as positive, with 100% of the group scoring 4 on the Likert scale in terms of the positive effects on their learning experience. 71.4% agreed that they would like more PBL within the curriculum. Very few Year 2 students chose to use the open-text boxes to comment further. Those that did indicated an interest in the project and how it was being run. After taking part in the PBL process they commented that it had been: "helpful…useful…group participation was fruitful".

Year 3: There was little overall effect on the students' confidence in their clinical reasoning skills. There was a very slight effect in three areas, no effect in three areas and a slight lowering of confidence in one area. The group was positive in terms of their learning experience, with 100% scoring 4 or 5 on the Likert scale and an overwhelming agreement (100%) that they would like more PBL within the curriculum.

The key findings were that there was a generally positive or neutral effect on the students' perceptions of their clinical reasoning skills in all years. The positive effects in Years 1 and 2 were more pronounced than in Year 3. Their results showed only slightly positive changes, one slightly

negative change, or the results were neutral. Potential explanations for the results and any similarities and differences across the three years' cohorts are discussed below.

For Year 1, taking part in the PBL process clearly improved their confidence in some aspects of clinical reasoning. The areas of confidence which improved (20/26.67%) were students' perceived abilities to use diagnostic procedures, undertake/arrange investigations and make observations and record the service-users' responses. Slightly lower increases (10/13.3%) of confidence were reported in using research skills, problem-solving skills and formulating specific and appropriate music therapy management plans. A very slight increase of confidence (6.7%) was reported in their ability to conduct music therapy effectively. Perhaps this was not surprising, as the students had not commenced any clinical work at the time they received the PBL teaching input. Despite these positive effects, the Year 1 students expressed some concerns and confusion in the post-PBL survey.

The issues raised by Year 1 students as seen above (i.e. survey-questions confusion, case-scenario structure and PBL task design) were explored further during a semi-structured focus group. It was interesting to note that while the Year 1 students were expressing concerns and confusion and felt they had not covered clinical reasoning in their discussions or SDL, they still reported improvements in all areas of their clinical reasoning confidence, albeit very small in some instances. This could reinforce Maggi Savin-Baden's views that learning is stimulated most effectively at moments of confusion and ambiguity which occur during "disjunction". Savin-Baden argues that: "disjunction is not something to be seen as unhelpful and damaging, but instead as dynamic in the sense that different forms of disjunction, enabling and disabling, can result in transitions in students' lives" (Savin-Baden, 2000, p. 87).

There was a stronger effect of the PBL process overall in Year 2 as compared to Years 1 and 3, with all areas of clinical reasoning confidence improving. An improvement of 42.9% was seen in their confidence in using diagnostic procedures. Slightly lower increases (20/22.9%) were reported in undertaking/arranging investigations and formulating specific and appropriate music therapy management plans. Confidence in problem-solving skills increased by 14.3% and lower increases (5.7/8.6%) were seen in using research skills and conducting music therapy effectively. Finally, the lowest increase (2.9%) was reported in their ability to make observations and record service-users' responses.

Student feedback in PBL session two included the following comment: "it was helpful to have background info about a potential client to help support the initial sessions, but thinking about strategies etc. was harder". A point about strategic thinking was also made by another student: "some useful points to start thinking about a case, but I struggled to come up with approach and strategies for the music therapy plan". This was reinforced by yet another: "thinking through strategies in advance was useful".

The above comments concern areas which Year 2 students have reported as being more challenging, and there were moments when the group resisted these more uncomfortable discussions. As in Year 1, however, this experience of confusion and discomfort could arise when learning is happening and transitions are being made. Taking part in the PBL process improved the confidence of Year 3 students by 5% in using diagnostic procedures, formulating specific and appropriate music therapy management plans and undertaking/arranging investigations. In the three areas of

conducting music therapy, problem-solving skills and research skills there was no change. In the area of observations and recording of service-users there was a slight decrease of 5% in confidence.

However, this year group already had higher confidence levels in areas of clinical reasoning, possibly due to their experience of two years' placement work. The pre-PBL mean total scores were seen to increase for each cohort in all but one aspect of clinical reasoning. Since pre-PBL confidence levels were already quite high in Year 3 this could explain why the PBL sessions had a less positive effect. Year 2 and 3 students are both within what could be considered the clinical phase of their studies, and Year 1 in the pre-clinical. When considering the effects on students' confidence in their clinical reasoning skills, there is no clear or obvious difference between the pre-clinical and clinical phases.

When reviewing the results graphed in Figure 1, other than positive effects in all but one case, the effects on each area of clinical reasoning skills are not consistent within or across years. However, there are some similarities, e.g. the most positive effects in all years were seen in students' confidence in using diagnostic procedures (Y1 - 20%, Y2 - 42.86% and Y3 - 5%).

EFFECTIVENESS OF THE CASE SCENARIOS AND INTEGRATED TASKS

The project also monitored how the design of the case scenarios and integrated learning tasks affected the learning process. It was found that the three case scenarios functioned reasonably well as trigger materials for discussions and generating learning objectives. As covered below in more detail, each year's discussions, learning objectives and self-directed learning activities mapped closely against the topics which were intended to be simulated by the design of the case scenarios. In all three years, generating the learning objectives was experienced as one of the most challenging steps in the PBL process.

The learning objective formulation was an activity which was experienced in a consistently challenging way across all three years. A discussion arose during this activity in Year 3 which highlighted the fact that some students were feeling uncomfortable about what they felt they were supposed to be learning, and that the case scenario wording was "ambiguous". When this was discussed further there was a moment of realisation for one student, who commented: "Is it the point that the scenario is made up and it's meant to stimulate the group getting to the learning objectives?" Again, this slightly confused and ambiguous state may have allowed students to move into new areas of learning (Savin-Baden, 2000). However, it is important to consider that students could have needed more explanation around the function of the case scenarios within the PBL process. For example, a Year 1 student commented that "it's frustrating to identify so many areas of potential questions and only have time to study some". It is also interesting to note that there was a weaker effect on Year 3 students' confidence in their clinical reasoning, and they did agree that they would like more PBL. This could be explained by the comments made which were generally very positive about the PBL process and there was a high level of engagement and enjoyment in the PBL sessions. One student summarised this when they said: "This leads to a greater engagement with study. Important to feel part of the learning process, and to feel involved and considered. The wisdom of the crowd leads to useful and interesting territory."

Despite the groups' occasional discomfort with the PBL process and severe time constraints, with perseverance and guidance, in each year the PBL group process continued to function well and several learning objectives were produced. In Year 1, the case scenario successfully stimulated discussion and SDL in several topics which include the more obvious, namely the autism spectrum and the effects of ASD on communication and other sub-topics. Further discussion and learning covered issues around safeguarding and health and safety, and started to explore how music therapy could help. When compared to the expected areas which the Year 2 case scenario was designed to stimulate, the learning objectives again mapped closely against the main topics. These included depression, anxiety, bereavement, OCD and menopause. Further discussion also covered issues such as empty-nest syndrome and isolation, and the potential value of music therapy for this client. Finally, in Year 3, the explored areas and learning objectives mapped well against the expected areas which the case scenario was designed to stimulate. The more obvious topics were explored, namely inclusivity, location, accessibility, assistive music technologies and equipment choices. Further discussion and SDL also covered issues around the causes and effects of acquired brain injury, and started to explore elements of performance and session preparation which could be used in a group with a mixture of disabilities. There were also discussions related to differing models of music therapy, such as community music therapy. These were interesting for the group to explore, as they had been trained in psychodynamic music therapy.

DISCUSSION

The case scenarios were effective and functioned well in terms of raising students' interest in, and discussions around, the topic areas or "back stories" that they were intended to (see Box 2). As has been reported previously, however, the Year 1 students felt that certain changes to the case scenario would have produced more targeted learning. One suggestion for improvement included splitting the text into two paragraphs, which would draw their attention to the more clinical aspects of the case. Making the PBL case more obvious, directive and easier for students is in direct contrast to the clear advice given when discussing the project, case scenarios in general, and the three music Therapy scenarios specifically with the head of Small Group learning and Professionalism in a UK medical school (H. Neve, personal communication, 24th January 2015). If USW is to continue to develop the use of PBL in future this will be one of the most important decision-making areas to consider. While there needs to be a balance between ensuring the PBL can fit into the course timetable, making the PBL more directive could remove one of the main points of using PBL, which is to move away from directive teaching, and into student-led learning. This was reflected in the Year 1 focus group discussion, and one student thought that there was additional learning to be achieved by identifying their own resources.

Another aspect of the PBL process which worked effectively was the introduction of the extra integrated task in Years 2 and 3. These focused clinical tasks allowed students to take the general principles they were exploring and apply them to a simulated task. The tasks were to create a music therapy plan in Year 2, and performance schedules and session plans in Year 3. Although carrying out both tasks in both years was challenging for the group, and for the group facilitation by a third-year music therapy student, in both cases steady progress was made and students were able to eventually

see the rationale behind being asked to engage with these integrated tasks. In Year 1, where students were deliberately not given a clinical task, all students felt they would have benefited from a similar integrated clinical task. When designing integrated clinical tasks there could also be an opportunity to link them closely to music therapy settings, current placement experiences, and other curriculum areas (e.g. clinical improvisation sessions). As reported by Nochamma Sockalingham et al. (2011), effective problems should lead to formulation of appropriate learning goals, relate to the students' prior knowledge and be interesting. The three case scenarios developed and used in this project met all these criteria.

Feedback from the course leader who observed all PBL sessions was invaluable in articulating the outcomes of the project. She reported that it was illuminating to see the level of engagement promoted by this pedagogical method. Students were able to engage in the way that suited their learning styles. For example, some students undertook the role of the scribe, and indicated they found this method of participation stimulating. Some were more active in SDL that was then presented for discussion the following week. It was useful to see students' thought processes in action as cases were discussed and reflected upon. The role of the PBL facilitator also appeared to align well with pedagogical aspects of music therapy teaching, where the seminar or experiential leader may be more akin to that of facilitator than teacher. Also of value was the fact that a clear maturity of thought and emerging professional personas could be seen, particularly in the Year 3 students. Here there was a shift towards evaluating different music therapy methods and seeing how alternative ways of practising could meet service-users' needs.

Student feedback and quantitative data gathered from this pilot led USW to consider the continued use of PBL across all years of the music therapy MA, building upon the pilot study's experiences and findings. More consideration could be given to continuing the PBL pilot in all years, or with a focus on Years 1 and 2, as well as developing online resources to support the method. The existing cases could be developed, including possible digital enhancement. Integrated clinical tasks could also be woven more securely into the PBL seminars. The project essentially threw the students into the PBL process, and there could be merit in developing an introductory PBL case scenario as an induction to the PBL process. As with any academic input, careful consideration needs to be given to avoid the PBL seminars clashing with other course deadlines.

On implementation of further PBL in the MA Music Therapy training at USW, it would be vital to continue to evaluate its effectiveness on clinical reasoning or other skill sets together with the student experience of the pedagogical method. There would also be the possibility of developing a music therapy PBL evaluation tool, with a view to possible future collaboration with other music therapy courses. The PBL process has already been integrated at USW with other educational activities, such as clinical improvisation and theory and practice seminars. Initial responses and outcomes to these curriculum developments are positive. Further staff training in PBL facilitation and expertise would be desirable to build on the findings of this pilot. Although at present these methods are only used in the MA Music Therapy, it would be worth broadening its usage to the MA Art Psychotherapy programme, as well as potentially using mixed groups of trainee music therapists and art psychotherapists. Laahs and Derrington (2016) have written of the benefits of interprofessional education (IPE) with reference to the MSc Music Therapy programme at Queen Margaret University in Scotland, so there is an emerging evidence base for this kind of work. It could also be beneficial to make contact with other

UK music therapy programme leaders and academics to find out more about their use of PBL with a view to possible future sharing of case scenarios and pedagogical research. In an international context, Clark and Thompson (2016) write of the challenges of delivering e-learning in their MA Music Therapy programme at the University of Melbourne. Perhaps PBL could be considered as a mode of curriculum delivery here, for intensive study weekends or group discussion via online personal interaction. Further research could explore how the confidence level reported in music therapy students mirrors changes in their practical work.

CONCLUSION

In conclusion, and with full acknowledgment of the inherent limitations of a self-reporting evaluation, this project successfully piloted the use of PBL in music therapy training across the three years of the MA Music Therapy programme at USW. The experience gained for the teaching team and students, and the research data obtained, has provided evidence of positive effects on music therapy students' confidence in their clinical reasoning skills and upon their learning experiences. The information is useful in itself to add to the body of knowledge around PBL and its effectiveness in aspects of music therapy training, but it can also be used to inform future decisions on further use of PBL within USW. Given the positive effects coupled with the information on how the implementation of any PBL intervention can be influenced by a variety of controllable factors, there is every reason to conclude that future use of PBL within music therapy training at USW and at other institutions could be highly effective.

APPENDIX: PRE-/POST-PBL SURVEYS

Pre-PBL survey Year … SURVEY NO …

PBL and music therapy: A pilot study at USW: 2014/15

Please choose the options which are closest to your opinions in all the questions below.
Please tick the relevant boxes to indicate where on the scale you agree or disagree with the following statements.

Q1: I feel confident in my ability to conduct appropriate diagnostic procedures effectively.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q2: I feel confident in my ability to conduct appropriate music therapy effectively.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q3: I feel confident in my ability to formulate specific and appropriate music therapy management plans, including the setting of timescales.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q4: I feel confident in my ability to undertake or arrange investigations, for example setting up an assessment period in order to ascertain the appropriateness of an intervention.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q5: I feel confident in my ability to observe and record service-users' responses.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q6: I feel confident in my ability to use research skills to determine appropriate actions.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q7: I feel confident in my ability to use problem-solving skills to determine appropriate actions.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q8: I anticipate that taking part in the music therapy PBL sessions will have a positive effect on my learning experience.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q9: I have been involved in problem-based learning in a previous educational setting.

☐ Yes ☐ No

Q10: Further comments: Please use the area below for any feedback or comments which you feel are important, relevant, or which you think we should know about before you take part in the PBL group.

Thanks very much for completing this survey and being part of this research.

Post-PBL survey Year … SURVEY NO …

PBL and music therapy: A pilot study at USW: 2014/15

Please choose the options which are closest to your opinions in all the questions below.
Please tick the relevant boxes to indicate where on the scale you agree or disagree with the following statements.

Q1: I feel confident in my ability to conduct appropriate diagnostic procedures effectively.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q2: I feel confident in my ability to conduct appropriate music therapy effectively.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q3: I feel confident in my ability to formulate specific and appropriate music therapy management plans including the setting of timescales.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q4: I feel confident in my ability to undertake or arrange investigations, for example setting up an assessment period in order to ascertain the appropriateness of an intervention.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q5: I feel confident in my ability to observe and record service-users' responses.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q6: I feel confident in my ability to use research skills to determine appropriate actions.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q7: I feel confident in my ability to use problem-solving skills to determine appropriate actions.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q8: Taking part in the music therapy PBL sessions has had a positive effect on my learning experience.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q9: I would like more of the music therapy curriculum delivered using a PBL approach.

Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
☐	☐	☐	☐	☐

Q10: Further comments: Please use the area below for any feedback or comments which you feel are important, relevant, or which you think we should know about now you have taken part in the PBL group sessions.

Thanks very much for completing this survey and being part of this research.

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Ελληνική περίληψη | Greek abstract

Προσφέρουν οι προσεγγίσεις Μάθησης με Βάση το Πρόβλημα [Problem-Based Learning] αποτελεσματικές εκπαιδευτικές παρεμβάσεις για τα εκπαιδευτικά προγράμματα μουσικοθεραπείας? Εμπειρίες από μια έρευνα δράσης στο Πανεπιστήμιο της Νότιας Ουαλίας

Sally Holden | Elizabeth Coombes | Kathy Evans

ΠΕΡΙΛΗΨΗ

Μια προσέγγιση Μάθησης με Βάση το Πρόβλημα [Problem-Based Learning, PBL] δοκιμάστηκε πιλοτικά σε όλο το μεταπτυχιακό πρόγραμμα μουσικοθεραπείας στο Πανεπιστήμιο της Νότιας Ουαλίας. Ο κύριος στόχος του προγράμματος ήταν να διερευνήσει κατά πόσον η ανάπτυξη των πρακτικών δεξιοτήτων και της ικανότητας κλινικού συλλογισμού των φοιτητών μουσικοθεραπείας θα μπορούσε να ενισχυθεί με τη χρήση μιας προσέγγισης PBL κατά τη διάρκεια των σπουδών τους. Μελέτες περίπτωσης οι οποίες ενσωματώνουν

πολλές πτυχές της απαιτούμενης μάθησης καλύπτοντας βασικούς τομείς του προγράμματος σπουδών αναπτύχθηκαν και χρησιμοποιήθηκαν σε συνεδρίες PBL με κάθε ομάδα φοιτητών. Οι συνεδρίες συντονίστηκαν από έναν συντονιστή με κατάρτιση στο PBL και εποπτεύθηκαν από τον υπεύθυνο του προγράμματος μουσικοθεραπείας. Οι φοιτητές ολοκλήρωσαν ένα ερωτηματολόγιο πριν και μετά την εφαρμογή του PBL, δίνοντας πληροφορίες σχετικά με την αυτοπεποίθησή τους σε διάφορους τομείς του κλινικού συλλογισμού. Συγκεντρώθηκαν επίσης σχόλια σχετικά με τις απόψεις τους σχετικά με την προσέγγιση PBL και τις επιπτώσεις της στη μαθησιακή τους εμπειρία. Τα αποτελέσματα δείχνουν ότι η εμπλοκή με τη διαδικασία PBL είχε θετική επίδραση στην αυτοπεποίθηση των φοιτητών ως προς τον κλινικό τους συλλογισμό, και στην θετική τους αξιολόγηση αυτής της εμπειρίας.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ

Μάθηση με Βάση του Πρόβλημα [Problem-Based Learning], δεξιότητες κλινικής σκέψης, εκπαίδευση μουσικοθεραπείας, έρευνα

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INTERVIEW

Within and across boundaries: Music therapists teaching across disciplines in higher education

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ABSTRACT

This interview follows a chance meeting between two music therapists: UK music therapist Beth Pickard, and Finnish music therapist Mikko Romppanen. Both Beth and Mikko are registered music therapists, but were engaging in an International Wellbeing Week at Häme University of Applied Sciences (HAMK) in Finland in their capacities as lecturers in higher education. Their diverse roles and responsibilities as well as contrasting pedagogical stances provided a wealth of rich discussion during their time together, and created the stimulus for this extended dialogue. During this interview, they will explore their own orientation and training as music therapists, before considering how their professional background informs how they approach their own learning and teaching practices. Mikko and Beth teach students from a range of disciplines to use music and the arts therapeutically within the boundaries and scope of their practices. In reflecting upon the potential and challenges of this model, they consider whether such an approach could be further developed. In addition, Mikko insightfully reflects on the potential of music as a form of self-expression for undergraduate students across disciplines, and the prospect of the evolution of arts-based research and evaluation to provide further opportunities for music therapists across contexts in higher education.

KEYWORDS

music therapy,
learning and teaching,
higher education,
interdisciplinary,
international

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INTRODUCTION

This interview follows a chance meeting of two music therapists: Mikko Romppanen, who is a Senior Lecturer at Häme University of Applied Sciences (HAMK) in Finland, where he teaches adult social work and creative methods to social services students; and myself, Beth Pickard, a Senior Lecturer at

the University of South Wales, who leads an undergraduate Creative and Therapeutic Arts degree. While we are both music therapists teaching in other subject areas, the main distinction between Mikko's role and my own is that Mikko is primarily teaching therapeutic music skills to non-music students, whereas I am primarily teaching visual artists to develop the inclusive and participatory nature of their practice, not specifically in a musical domain.

Following our chance meeting at Häme University of Applied Sciences (HAMK) International Wellbeing Week, it was a privilege to spend some time in Mikko Romppanen's teaching spaces, learning about the methods and theories he uses in teaching social services students to engage creatively and therapeutically with their service users. I was not visiting HAMK in my capacity as a music therapist, and was rather delivering a series of workshops about sign-supported communication, using SignAlong's method: "[a] key word sign-supported communication system based on British Sign Language […] used in spoken word order. It uses speech, sign, body language, facial expression and voice tone to reference the link between sign and word" (SignAlong, 2019). I was exploring with international students the potential of inclusive and holistic communicative methods to contribute to the wellbeing of individuals with learning disabilities, enabling increased relatedness and connectedness: eudaimonic theories proposed by Ryan and Deci (2001). This is a subject I explore in depth with students enrolled in the undergraduate Creative and Therapeutic Arts course at the University of South Wales. In this course, I draw from my music therapy experiences, skills and training, but I am not training music therapists. This approach is mirrored in Mikko's teaching, where he explores many topics covered on music therapy training courses, but not with an intention to train music therapists either. I was fascinated to find a colleague with a shared experience of teaching across disciplines and was eager to understand Mikko's perspective and insights.

After spending some time making sounds and music together, we reflected on the potential and challenges of working in this interdisciplinary way. Upon returning from Finland, Mikko and I have been in communication to further explore our shared experiences and to learn from each other. A summary was presented in BAMT Leading Note (Pickard & Romppanen, 2018) and this interview seeks to further unpack some of the intricacies of our "context-specific" and "context-transcendent" practices (Kreber, 2009, p. xix).

OUR IDENTITIES AS MUSIC THERAPISTS

I (Beth) initially studied critical disability studies and applied this learning through a range of inclusive education and music education projects. My music therapy training at the University of the West of England (UWE) was humanistic and integrative. This combined training gave depth and theoretical underpinning to my ways of being in music with others and enabled me to develop the intentionality of my work. Such intentionality entails making informed decisions about both the positioning of the work but also the language and framework through which it is articulated and communicated. I have continued to work primarily with children and adults with learning disabilities, and my passion continues to be around challenging a deficit-based interpretation of disability (Pickard, 2019). I was interested to understand Mikko's philosophical background and clinical emphasis as a music therapist, and asked him how he would describe his practice:

> I trained as a music therapist first in Helsinki Sibelius-Academy from 1995 to 1997. After that, I completed my master's degree in Jyväskylä University in 2001. I have also gained further qualifications in Guided Imagery in Music (GIM), Levels I and II. As a clinical music therapist, I initially worked in Kellokoski Psychiatric Hospital. After that I worked as a freelance music therapist in Greater Helsinki, which is the capital area in Finland. Most of my clients have been psychiatric patients in adolescence or early adulthood. I have also facilitated groups for psychiatric patients of all ages. While not my main field of expertise, I have some experience of working with children with disabilities, too. At the moment I do not have a clinical practice but I am concentrating on teaching at HAMK and other places. (Mikko)

Mikko approaches his learning and teaching practice with a rich and varied background in music therapy practice, including additional training in receptive methods such as GIM. Understanding Mikko's background led to the realisation that our journeys towards teaching beyond music therapy in an interdisciplinary manner have originated from very different vantage points.

The term interdisciplinary is used intentionally, to describe the way our subject knowledge is applied across discipline boundaries: "Interdisciplinarity implies intersections of different subject areas that might give birth to new objects of study. The interdisciplinary approach washes the limits between the disciplines and the new common topics of different subjects are being looked for" (Crisciuc & Cosumov, 2017, p. 38). A valuable insight into the typologies of theoretical, methodological and epistemological interdisciplinarity is offered by Klein (2017) and, while beyond the scope of this interview, provides such food for thought in further reflecting upon and dissecting the exact nature of the interdisciplinarity proposed here.

LEARNING AND TEACHING PRACTICE

To understand how we develop our pedagogical approaches and traverse our subject boundaries, it is first necessary to understand how we position and define our own practices within the international subject area of music therapy. My own learning and teaching practice is diverse and varied. I teach on the MA Music Therapy at the University of South Wales; facilitating group supervision, teaching about humanistic principles and politics of disablement, and contributing significantly to the Research and Dissertation module. However, the majority of my teaching time is spent on the undergraduate Creative and Therapeutic Arts programme, of which I am Course Leader.

This is a practice-based programme where visual artists train to use their art form in increasingly inclusive and participatory ways. The challenges of describing and articulating this rich and varied practice are explored elsewhere (Pickard, 2019; Swindells et al., 2016) and the lack of standardisation and professional regulation can be seen as a constructive opportunity to develop opportunities across a wide range of contexts. This opportunity is explored with an importance of the awareness of maintaining professional boundaries. Contemporary developments discussed in Matarasso (2019), such as increased focus on ethical practice and the development of Codes of Conduct for Participatory Artists (Deane, 2013), are both welcome and needed. From another perspective, the issue of

practitioners misrepresenting their practice is discussed by Pearson (2018, p. 3), noting: "Language specificity about roles, however, is important, particularly when we are doing work that has the potential to cause harm". This is a perspective I am very aware of and very conscious of as I enable students to work therapeutically but not as therapists.

In addition, I contribute to modules on other programmes, including Art Psychotherapy, Play Therapy, Psychology, Nursing, Education and Early Years. These cross-disciplinary teaching opportunities enable me to advocate for music therapy and share principles of communicative musicality (Malloch & Trevarthen, 2009) and inclusive practice (Moore & Slee, 2014) with trainee professionals in many other disciplines. I find that this breadth of pedagogical opportunities enriches my own music therapy practice as well as the subject-specific experiences of myself and students. Mikko summarises his own learning and teaching practice below:

> I started at HAMK University in 2010 as a full-time lecturer. My main area of responsibility is adult social work and creative methods concerning music and soundscapes. I also teach leadership and supervising in social work, as well as a range of other topics, such as child welfare.
>
> The Music and Soundscapes course is part of the module, within which culture and art-based methods are presented for the students of the School of Wellbeing (Bachelor's of Social Services). Teaching creative methods is also part of other modules in HAMK's repertoire, for example, the Early Childhood Education module. The focus here is on play and music's supportive role in children's development.
>
> Additionally, there are also occasionally extracurricular musical activities at HAMK. When a new group of students start their studies in the School of Wellbeing in HAMK, I introduce them to the possibility of making music together as part of their studies. They often form groups, which perform at different occasions and events at HAMK and in our network of local organisations, such as local kindergartens, day centres, homes for older adults and so on. HAMK's music pedagogy is described briefly in this short video extract: https://youtu.be/4Qtksg8UAeY
>
> A trio of these musically active students did, furthermore, complete their final thesis about the empowering effect of music. An essential part of the thesis was a documentary film, where they interviewed their fellow students about the moments when specific songs had a positive impact on their lives: https://www.youtube.com/watch?v=FP_Fy3GYw3U&feature=youtu.be
>
> My role at HAMK is flexible and multifaceted. I also have quite a lot of influence within my own work, which is great. I am able to decide in what direction to take my teaching and what areas are highlighted in my pedagogy. I can also develop new ideas and projects that can be included in my teaching.

What is apparent here is that both myself and Mikko continue to maintain and develop our professional currency through specific music therapy practices, but also develop our practices through teaching in other subject areas. The educational and social care systems in Wales and Finland account for some of the differences in our teaching and subject areas, but there are many parallels in

the way that we explore the potential of music to inform child development, social inclusion and student experience through an interdisciplinary frame.

As noted, the main distinction between Mikko's experiences and my own would be that Mikko is primarily teaching therapeutic music skills to non-music students, whereas I am primarily teaching visual artists to develop the inclusive and participatory nature of their practice, not specifically in a musical domain. Mikko's students are social services and early years students with knowledge of how to work with others, who may begin to use music and creativity in their practice. My students are visual arts students who are beginning with a refined and established art practice and are learning how to work in the community.

This is an interesting contrast: working with artists to enable them to consider the therapeutic potential of their existing practice, or working with social care and early years students and enabling them to incorporate the arts into their existing practice. Visual arts students may have a more established skill set in the arts, yet social care students may be greater in number and potentially have wider reach and impact in their future roles. There are interesting considerations in reflecting upon these different models of practice.

Both Mikko's and my own are examples of interdisciplinary teaching practices, with interdisciplinarity defined by Darbellay (2015) as:

> Interdisciplinarity brings into play two or more established disciplines so that they interact dynamically to allow the complexity of a given object of study to be described, analyzed and understood. Interdisciplinarity, which goes further than simply juxtaposing different disciplinary viewpoints, involves a collaborative and integrative approach by disciplines to a common object, in the joint production of knowledge. Collaboration and integration of disciplinary competencies and knowledge can occur at different levels of interaction: it can be a matter of transferring or borrowing concepts of methods from another scientific field, of hybridization or crossing mechanisms between disciplines, or even creating new fields of research by combining two or more disciplines. In all these scenarios, the organisation of knowledge along interdisciplinary lines is based on the interaction between several points of view, with the issues and problems treated falling 'between' (inter) existing disciplines, being recalcitrant to treatment by a single discipline. (Darbellay, 2015, pp. 165-166)

This definition is particularly interesting when we consider the crucial boundary of the arts therapies' legally protected title in the UK (HCPC, 2018), over which creative arts students cannot cross, despite their, arguably, working on its boundaries (Pearson, 2018).

From a learning and teaching perspective, there is recognised potential of an interdisciplinary approach (Chandramohan & Fallows, 2009; Kreber, 2009), with McCune (2009, p. 233) suggesting that "where students develop a critical awareness of the knowledge practices of their disciplines, and ideally of several disciplines, they are better placed for the interdisciplinary problem solving required to approach complex real-life problems". Rooks and Winkler (2012, p. 3) concur, suggesting that "among the advantages of multidimensional interdisciplinarity are that students learn that knowledge is not compartmentalized and that in the real world, knowledge is transferable and cumulative".

Within music therapy practice, the potential of interdisciplinarity is discussed in various contexts, including Stige's (2012, p. 183) definition of "health musicking" as "a possible framework for a broader interdisciplinary area of music, health and wellbeing". Other applications of the term include collaborations with interprofessional teams, as Twyford (2017, p. 899) interestingly notes that "the profession of music therapy may be behind the times with its use of teamwork terms, particularly in relation to health care, where the term interprofessional is increasingly prevalent". Pearson (2018, p. 6) interestingly suggests that taking an "interdisciplinary leadership role as health-musicking experts is one way of raising awareness of the profession [of music therapy]." Interdisciplinary dialogues between music therapy and special education are explored by Darrow and Tsiris (2013), while Karkou (2016) considers the interdisciplinary potential of working across arts therapy modalities. Mikko further clarifies his own views on the potential of our specific interdisciplinary approach later in this interview.

APPLICATION OF MUSIC THERAPY SKILLS ACROSS SUBJECT BOUNDARIES

In order to further understand how Mikko and I draw from our music therapy training to inform our interdisciplinary learning and teaching practice, I asked Mikko how he felt his music therapy role informs his teaching practice:

> I feel that my music therapy expertise has had a lot of impact on my work at HAMK. Teaching creative methods in this context raises many interesting questions. What kind of approach should we have in this context and what are the possibilities and options? What are the frames for the pedagogy? My students are not necessarily going to be musicians, nor are they going to be therapists, let alone music therapists. So what kind of terminology should we use when discussing this field of pedagogy? This is a question I have actually been pondering quite a lot.
>
> At HAMK we apply a theoretical approach called social pedagogy. The idea and ideal of social pedagogy roots back to Paulo Freire's (2017) Pedagogy of the Oppressed and other important thinkers of the last century. Also, the concept of sociocultural inspiration is essential in this context (Kurki, 2000). Briefly, sociocultural inspiration is an approach where people are supported to become stronger actors in their own lives. Traditionally, the arts have been one important method of sociocultural inspiration when working with communities in different contexts. So, this theoretical frame is actually very suitable when teaching therapeutic use of music to social work students.

This theoretical frame was fascinating to learn about, and Freire's (2017) *Pedagogy of the Oppressed* is an influential source for my own pedagogy too. I am in the process of exploring the concept of sociocultural inspiration that Mikko offers further in order to inform my own practice. While we also draw from social justice perspectives for the Creative and Therapeutic Arts degree offered at the University of South Wales, the Course Team also draw from critical disability studies (Goodley, 2017), participatory arts (Matarasso, 2019), socially engaged art (Helguera, 2001) and inclusive arts (Fox & Macpherson, 2015) perspectives. We take a vocational approach to understanding how to

develop quality, evidence-based therapeutic arts provision to benefit wellbeing (Swindells et al., 2016; Matarasso, 2019). Students benefit greatly from the locally developed ArtWorks Cymru Quality Principles (ArtWorks Cymru, 2015) which define what robust practice in the field of participatory arts might entail. Students further draw from positive psychology to underpin the intentionality of their practice, with Ryan and Deci's (2001) model of self-determination theory and Ryff's (2014) psychological wellbeing being highly influential. As noted, Swindell et al. (2016) summarise exceptionally well the complexity of defining this socially engaged arts practice. The Course Team have developed a spiral curriculum (Bruner, 1960; cited in Fry, Ketteridge & Marshall, 2015) which is experiential and enables students to learn from the vantage point of participants as well as facilitators (Pickard, 2019; Ryff, 2016).

Further to considering pedagogical approaches, I asked Mikko whether he felt his insight as a music therapist as opposed to a music teacher was important:

> Yes. Basically, I am not teaching people to sing or play, even though I may give them some inspiration to develop their musical skills at their own level. My main pedagogical focus is to enable students to reveal their inner creativity and encourage them to use the gifts they already have when working with people in social services or with children in early years provision. Most of the methods I am teaching the students are things like making pictures to the music, writing to the music, creating soundscapes with body instruments, musical games or how to use musical biography as a tool when working with others. So most of the things I teach do not demand any musical knowledge or musical skills. Of course those who have musical skills and knowledge can benefit from the teaching too, and they can find new ways of using their musical skills in this work.
>
> For example, I introduce the students to the Figure Note system (Uusitalo & Kaikkonen, 1999; Laes, 2014), which is an accessible method utilising colours and shapes and enables anyone to play an instrument almost instantly. This methodology of special music education has been used and researched in Finland for quite some time (Laes, 2014). I also introduce students to some electronic equipment so that music-making could be more accessible for certain participant groups. Recently we have invested in a Sound Beam, an ultrasound beam that reacts to movement and enables participants to make music through body movement, that is widely used with people who have disabilities (Sound Beam, no date).
>
> We also have a "music mat" created by Jukka Louhivuori from Jyväskylä University. The music mat is equipped with sensors that are triggered by contact with the body and create sounds. In essence, this is a simple, accessible MIDI instrument that you can access by making contact with the mat. This innovation is also being researched in Jyväskylä University (Lempiäinen, 2018; Tuikka 2018). The idea of these accessible and innovative instruments and methods is to give students an understanding about the possibilities of their own body and voice, the possibilities of the conventional instruments and the possibilities of technology in music-making with different participant groups.

This idea of focusing on transferable learning through the arts is shared in my own teaching practice, however, there is an expectation that creative and therapeutic arts students will have a level of knowledge and skill in their art form (ArtWorks Cymru, 2015). This expectation of knowledge and mastery in their art form is exemplified in Matarasso's (2019, p. 48) recent definition of participatory arts as "the creation of art by professional artists and non-professional artists". This definition can be seen as problematic for many reasons, including the binary separation between collaborators, and the challenge of what is meant by 'professional' and how this is defined (see Deane, 2019). However, the emphasis on the artistic skill and experience of the facilitator is constructive in order to maintain the quality and rigour of the artistic practice and experience. While facilitators will not necessarily require advanced levels of artistic skill or prior artistic experience from their participants, there is a level of skill required of the facilitator to harness the potential of the arts in this creative collaboration. This level of artistic competency closely mirrors the expectation of arts therapists to maintain and develop their own artistic skills and competencies in the UK (HCPC, 2013).

A FUTURE GENERATION OF PRACTITIONERS

In acknowledging that both in Finland and in Wales there is an increasing emphasis on wellbeing of future generations (Welsh Assembly Government, 2015; Parliament of Finland, No Date; NESTA, 2019), I asked Mikko how he felt training practitioners in a resourceful, creative method might influence their future practice:

> This is not a very easy question to answer. I can just say what I presume and hope my teaching will influence this next generation of professionals. I hope that this next generation of professionals will have more self-confidence for expressing themselves musically, artistically and in general. I hope that, having been introduced to music and other artistic ways of self-expression, they will also be more confident in expressing themselves verbally in any situation. They will hopefully also have a better toolbox for working with people creatively. An important aspect of this pedagogy is of course that future professionals will have a good understanding about the therapeutic potential of music and creativity. This understanding in turn also means that they are more aware of approaches and professions like music therapy and art psychotherapy. They understand what music therapy means and they are able to contact the professionals in that area when they plan and discuss useful interventions for their clients and service users.

This recognition of increased referrals to arts therapies is a highly interesting one, which emphasises clearly an acknowledgement of the distinction between these practices and the legally protected arts therapies. In reflecting on Pearson's (2018) recent article, I would concur with Mikko's assertion that working therapeutically through the arts at this lower level can in fact increase awareness of, and referrals to, arts therapies, rather than be seen as a threat. Both Mikko's students and my own are highly aware of the boundaries and distinctions between exploring the arts therapeutically, engaging in creative methods and the psychotherapeutic intervention of the arts

therapies. As noted, in participatory arts research and practice, this distinction is often discussed and debated (Swindells et al., 2016; Matarasso, 2019). When asked whether Mikko foresees any potential concerns about crossing a boundary into music therapy, Mikko responds:

> That is a good question. I think it is important to understand that music therapists are doing clinical, therapeutic work that demands a certain professional accreditation and level of study. The therapist's engagement in their own personal therapy process is of course also essential as a part of becoming a true music therapy professional. Then again when we think about my students, who are going to receive a Bachelor's of Social Services, it is obvious that they are also going to be highly skilled professionals, experienced in working with people. They will be working in many contexts with many different kinds of participants. They are not doing therapy work but they are still part of the rehabilitation team. They do rehabilitative work with a different mindset and intention than a therapist. While therapy work is often more focused on a specific referral criteria, a Bachelor's of Social Services graduate usually works around the general wellbeing of their client.
>
> My opinion is that since they are skilled professionals, with three to four years of bachelor-level studies behind them, why should they not have some musical methods in their professional toolkit? Obviously, it is a different thing to using specific music therapy approaches like Guided Imagery in Music (GIM), Analytically Orientated Music Therapy (AOM) or Nordoff-Robbins Music Therapy with the clients (see Wigram, Pedersen & Bonde, 2004), but I only teach the students basic methods like drawing and writing to music or basic improvisational skills. Of course, it is evident that even these basic methods can be very powerful tools and they can provoke strong feelings and emotions among clients. But then again - our students are going to be professionals and they will have the skills to cope with many kinds of emotive situations and encounters with the clients as part of their training.
>
> So, I do not really have any moral hesitations when teaching my students the basic methods of using music in a therapeutic way with their clients. We have to remember that many students are also going to work in early education, where they can benefit from the toolbox I am offering in my teaching. When we know about the benefits that music and other art forms have for child development, it is essential that the educators are able to use many kinds of approaches in their work in early education. Moving and painting to music, improvisation and creating soundscapes with and without instruments can support both educational and wellbeing outcomes in early years practice. The students will learn that music pedagogy with children can be much more than just singing and that it is possible to achieve many kinds of social and psychological goals with the help of music and other art-based methods.
>
> I really do not think that my students should or will be competing with the music therapy professionals. Actually, I think that my students might be just more aware about that specific area of therapy and they probably would readily

> refer to the services of music therapists when they are making plans for the benefit of their clients.

This is a confident and informed outlook from Mikko's practice. I would say that, in Wales, I am more mindful of the potential for tension between participatory arts or inclusive arts and arts therapies. Many students have the aspiration to become arts therapists in the future, and some are not as aware of the professional distinctions between roles when they commence their studies. As such, I do feel a moral and professional obligation to explore those boundaries overtly with students during their studies.

NEXT STEPS

Having understood the current positioning of Mikko's practice at HAMK, I asked whether he felt this model could be expanded or developed further:

> I think that this pedagogic model could and should be developed further. Arts-based methods could be integrated more in teaching not only as a toolbox for future workers in social services but also as a method of pedagogy in any context or faculty. Actually, I have been pondering quite a lot lately: what is the best and most appropriate way of teaching music and other arts- and culture-based methods in general for students in our context as a part of the curriculum?
>
> Is the system where we have a dedicated module for these methods appropriate or should we embed creative methods into several modules along the way? While we do have this dedicated module, we have started to deliver elements of this content in other modules and on other courses too. It might be beneficial to integrate creative methods into all kinds of learning situations and contexts. I mean that the arts might be a tool to learn anything that is included in HAMK's curricula and not only as a toolbox for working with social services clients. Music and other art forms are powerful tools for gaining self-knowledge: an essential skill in any profession or discipline in contemporary society. There is increasing interest from other subject areas and faculties to explore these creative methods.
>
> I actually hosted a workshop for gardening students this year. The basic premise is to use the arts as a vehicle for self-insight and to awaken the creative potential in the minds of the students. The experience and feedback was positive, and we have some further plans with the colleague of mine responsible for that discipline. Maybe I could also modify the exercises in the workshops according to their learning goals in the module: "How could we teach about gardening through music therapy exercises?" might be an inspiring question.
>
> I have also recently learned about an international project concerned with art-based methods in research, evaluation and assessment. "Beyond Text" is a collaborative international project concerned with bringing arts-based practice research into education (Pässilä et al., 2017). The focus of this interesting project is finding ways to support practitioners and researchers from all disciplines within universities, professions and organisations beyond, to use the

> arts to conduct high-quality research, assessment and evaluation through practice. The purpose of the project is to bring art-based approaches into new areas like mainstream education, youth, social and health care, business, maths, science and engineering education. So, art-based methods could and should maybe be used more widely also in different areas of education and development for several purposes.
>
> All in all, it has been, and still is, an inspiring challenge to teach the therapeutic use of music to students enrolled in the Bachelor's of Social Services at HAMK. As artificial intelligence and other technology is rapidly evolving and we are increasingly surrounded by technological advances, I think we now need music and other art forms more than ever to find and develop our human potential. Artistic values and engagement with nature should be central to our education system lest we forget our true being in this busy and rapidly ever-changing material world.

Mikko's concluding thoughts chime with my own experiences, where arts-based methods of research and evaluation are becoming increasingly mainstream (Coemans & Hannes, 2017; Kara, 2015; Leavy, 2015; Mannay, 2016). While this integration offers great potential for creative arts and arts therapies students to engage in increasingly accessible and relevant research, it also demonstrates the relevance of an introduction to creative methods to a much wider cross-section of students. While arts-based research and evaluation is a subtly distinct application of the creative skills of music therapists, this too could be a valid area of development and potential collaboration across disciplines.

CONCLUSION

This chance meeting with Mikko has enabled a deep and insightful exploration of my own intentions and methods in my learning and teaching practice. This exploration was unanticipated but hugely welcome. As my own research evolves to explore perceptions of diversity, inclusivity and normalcy in higher education, I find myself critically reflecting on many of Mikko's valid points. Should we be concerned about the boundary between therapeutic music and music therapy? Is this boundary being crossed or is concern about crossing this boundary limiting potential of work by practitioners in related fields? Does music therapy training offer far greater potential than solely enabling music therapists to work clinically? What further impact could we be exploring in applying our skills and values across disciplines? I thank Mikko for his stimulating discussion and hope we have the pleasure of working together further in the future.

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Ελληνική περίληψη | Greek abstract

Εντός και πέρα από τα σύνορα: Μουσικοθεραπευτές που διδάσκουν σε διάφορα επιστημονικά πεδία στην τριτοβάθμια εκπαίδευση

Beth Pickard | Mikko Romppanen

ΠΕΡΙΛΗΨΗ

Αυτή η συνέντευξη προέκυψε από μια τυχαία συνάντηση ανάμεσα σε δύο μουσικοθεραπευτές: τη Βρετανίδα μουσικοθεραπεύτρια Beth Pickard και τον Φιλανδό μουσικοθεραπευτή Mikko Romppanen. Τόσο η Beth όσο και ο Mikko είναι πιστοποιημένοι μουσικοθεραπευτές, αλλά συμμετείχαν στη Διεθνή Εβδομάδα Ευημερίας που πραγματοποιήθηκε στο Häme University of Applied Sciences (HAMK) στη Φιλανδία ως λέκτορες στην τριτοβάθμια εκπαίδευση. Τόσο οι διαφορετικοί τους ρόλοι και οι ευθύνες, όσο και οι ξεχωριστές παιδαγωγικές τους θέσεις τροφοδότησαν μια πλούσια συζήτηση κατά τη διάρκεια της συνάντησής τους, και δημιούργησαν το κίνητρο γι' αυτόν τον εκτεταμένο διάλογο. Στην πορεία της συνέντευξης αυτής διερευνούν τον προσανατολισμό και την εκπαίδευσή τους ως μουσικοθεραπευτές, προτού αναλογιστούν πώς το επαγγελματικό τους υπόβαθρο ενημερώνει τον τρόπο με τον οποίο προσεγγίζουν τις πρακτικές μάθησης και διδασκαλίας. Ο Mikko και η Beth διδάσκουν σε φοιτητές διαφορετικών επιστημονικών κλάδων για τη θεραπευτική χρήση της μουσικής και των τεχνών μέσα στα όρια και την εμβέλεια των πρακτικών τους. Αναστοχαζόμενοι τις δυνατότητες και τις προκλήσεις αυτού του μοντέλου, εξετάζουν το κατά πόσο θα μπορούσε να αναπτυχθεί περαιτέρω μια τέτοια προσέγγιση. Επιπλέον, ο Mikko αναλογίζεται με διορατικότητα τις δυνατότητες που προσφέρει η μουσική ως μορφή αυτοέκφρασης για τους προπτυχιακούς φοιτητές διαφόρων επιστημονικών κλάδων, και την προοπτική της εξέλιξης τόσο της έρευνας όσο και της αξιολόγησης που βασίζεται στις τέχνες, με σκοπό να παρέχουν στους μουσικοθεραπευτές περαιτέρω ευκαιρίες σε διαφορετικά πλαίσια της τριτοβάθμιας εκπαίδευσης.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ

μουσικοθεραπεία, μάθηση και διδασκαλία, τριτοβάθμια εκπαίδευση, διεπιστημονικότητα, διεθνής

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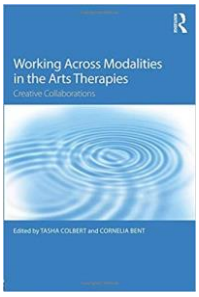
BOOK REVIEW

Working across modalities in the arts therapies: Creative collaborations (Colbert & Bent, Eds.)



Reviewed by Karen Twyford

Perth Children's Hospital, Perth, Australia

Title: Working across modalities in the arts therapies: Creative collaborations **Editors:** Tasha Colbert & Cornelia Bent **Publication year:** 2018
Publisher: Routledge **Pages:** 186 **ISBN:** 978-1-138-65643-7

REVIEWER BIOGRAPHY

Karen Twyford, MA (Music Therapy), RMT (AMTA). Karen is a Registered Music Therapist who has worked in the UK, New Zealand and Australia. Karen's special interest in professional collaborative working approaches led her to research and publish on the subject. She is co-editor with Tessa Watson of *Integrated Team Working: Music Therapy as Part of Transdisciplinary and Collaborative Approaches* published by Jessica Kingsley Publishers in 2008. Karen currently works at Perth Children's Hospital with children and young people with acquired brain injuries, spinal and neurological conditions. She also undertakes other freelance music therapy work in health and special education. [Karen.Twyford@health.wa.gov.au]

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The value of collaboration across health care sectors worldwide has been increasingly realised as vital for effective clinical outcomes. It is evident in the existing literature that when clinicians allow themselves to learn from the skill sets of others, their professional thinking and attitudes are broadened, and their approaches are strengthened. Collaboration and co-working are therefore one of the most effective ways of fostering mutual understanding and successful team working (Miller, 2008).

Working Across Modalities in the Arts Therapies: Creative Collaborations provides a captivating collection of collaborative working examples across the art therapies. While the editors acknowledge that the theme of collaboration has been explored increasingly, they maintain that the subject remains underrepresented in arts therapy literature. The aim of this book is to outline, encourage, and expand interdisciplinary work within the arts therapies and between other psychological and health care disciplines.

The editors, Tasha Colbert, a UK registered dance movement therapist, and Cornelia Bent, a UK registered music therapist, have a wealth of collective experience working in their respective disciplines and hold a shared commitment to working collaboratively. Both Colbert and Bent had worked collaboratively with other arts therapy disciplines and allied health professionals before working together in an acute mental health setting. This experience inspired them to document their work and collate this volume to gain a deeper understanding of cross-modality and transdisciplinary work.

The book is arranged into two parts: 1) cross-modality practice in arts therapies, and 2) transdisciplinary practice and research in the arts therapies. Colbert and Bent define cross-modal practice as art therapists from different modalities working together collaboratively in joint client interventions. The term transdisciplinary practice in this volume is used to refer to an art therapist collaborating with a practitioner from a different discipline such as psychology or systemic family therapy.

The preliminary pages include contributor biographies and a foreword by Tessa Watson. In the introduction, Colbert and Bent detail the aims, terminology, and definitions of art therapy modalities represented in the book and provide an overview of the chapters. The book comprises 13 chapters which detail a variety of collaborations in a range of settings, by a broad range of qualified and experienced arts therapists. The therapy modalities represented include dance movement psychotherapy, music therapy, dramatherapy and art therapy. The chapters provide international examples from the UK, USA and Syria, across a range of clinical areas including mental health, learning disability, and forensic settings. Examples of work with refugee children and veterans recovering from homelessness are also included. Illustrations are used throughout the book to provide specific working examples and illuminate the text.

This book adds to a growing body of literature and highlights the importance of collaboration to best meet the needs of the subject client group. Diverse examples detail the methods used by art therapy practitioners when developing effective cross-modal and transdisciplinary approaches to achieve effective outcomes for complex groups and hard-to-reach individuals. Many of the chapters provide description of the process taken by practitioners to combine their specialities, and the professional outcomes achieved by doing so. Importantly, the chapters from this book provide insight from the practitioners regarding the benefits and difficulties of working together and how these may be fostered and contained to maintain safe working practice. Several themes emerge from the book, illustrating fundamental professional and client-focussed rationale for collaborative approaches and hence strengthening the validity of the text.

The first theme relates to the new learning that professionals gain through collaborating, and how a deeper understanding of other's modality or profession can be achieved through this process. Collaborating with other modalities and professions aligns therapeutic aims and objectives (Charles and Sanoon, Chapter 7), maximises resources and thinking skills, and provides colleague support (Maguire and Mindang, Chapter 1; Rothwell and Henagulph, Chapter 10; Peacock, Chapter 13). Working collaboratively enables professionals to build on their core skills by illustrating existing differences and de-mystifying roles. This ensures client-focused partnerships and leads to professional trust and respect, and opportunities for new adaptations of the work (Wilson and Rose, Chapter 9; Rothwell and Henagulph, Chapter 10).

It is evident when reading this book that working collaboratively provides professional support for clinicians involved in difficult and challenging work (Maguire and Mindang, Chapter 1; Goodwin and Ramm, Chapter 4; Guney, Atik and Lundmark, Chapter 8; Allen, Chapter 11). Working collaboratively also provides support for clinicians to value the differences and uniqueness of their working methods, and reaffirms their professional value. This is particularly pertinent to arts therapists, who often express that they feel the need to prove themselves professionally (Downie and Witshire, Chapter 6). However, working collaboratively requires specific skills and poses several professional risks,

including exposure of professional self, helplessness, projection, transference and splitting (Rothwell and Henagulph, Chapter 10; Matthews, Chapter 11). The importance of taking collaborative approaches to joint post session debriefing and supervision is paramount to gain a deeper understanding of underlying issues related to the work.

A third theme relates to the benefits of cross-modal and transdisciplinary approaches for clients. Working collaboratively offers a reflective function for practitioners, which ensures flexibility and adaptability to client needs (Rothwell and Henagulph, Chapter 10) and provides a deeper understanding of and insight into clients (Charles and Sanoon, Chapter 7). Multi-modal approaches offer increased creative opportunities to express a wide range of feelings through alternative modes of expression (Maguire and Mindang, Chapter 1; Burrell and Cohen, Chapter 2; Colbert and Bent, Chapter 3; Downie and Wiltshire, Chapter 6) and provide a multi-sensory approach to trauma which allows for individual client preferences (Guney, Atik and Lundmark, Chapter 8). Further, an integrated approach provides the development of verbal and non-verbal narratives for clients, which enables a strong containing and reflective therapeutic space (Burrell and Cohen, Chapter 2; Wilson and Rose, Chapter 9).

The importance of relationship forms an integral part of the work described in the book. Modelling a joint therapeutic relationship of secure and trusting attachment is a fundamental aspect of and reason for collaborating. Several authors detail how a collaborative approach provides opportunities to model aspects of relationship to clients. This includes making associations, cooperation and establishing shared aims (Butte and Whelan, Chapter 5; Charles and Sanoon, Chapter 7), mutual respect (Matthews, Chapter 12), the broadening of interpersonal skills (Charles and Sanoon, Chapter 7), and the fostering of stability and empowerment (Peacock, Chapter 13). Client trust can be gained by modelling a secure, trusting and containing relationship (Allen, Chapter 11), which also provides the opportunity to enhance the 'stretching' of client emotions, sensations, thoughts and imagination by taking risks in a new modality (Downie and Wiltshire, Chapter 6; Colbert and Bent, Chapter 3).The collaborative partnership also provides opportunities to model diversity and the acceptance of differences to clients, and the possibility to reflect on this in the therapy space (Wilson and Rose, Chapter 9; Matthew, Chapter 12), as well as highlighting the value of working alongside clients as 'non-experts' (Colbert and Bent, Chapter 3).

Arts therapists share a common understanding of the value of creative processes and psychotherapeutic foundations in their respective approaches. Whilst I appreciate that the book concentrates on therapies with a psychotherapeutic focus, I would have welcomed a possible expansion of the transdisciplinary section to include contributions from other allied health disciplines. Such collaborations highlight similar themes to those described in this text but broaden the exposure of creative art therapy programmes within the wider mainstream health care framework. One last thought relates to the focus on collaborative examples with adult populations in the book. I would love to have read further examples of collaborative approaches with children and those in later stages of life to provide a comprehensive perspective on the subject. Perhaps these thoughts may offer inspiration for another edition.

Working Across Modalities in the Arts Therapies: Creative Collaborations highlights collaborations between professions with a psychotherapeutic focus and illustrates the ways in which creative mediums can be combined for effective outcomes. As such, this adds innovative and exciting breadth

to the existing literature as the reader learns how these related disciplines can engage in new learning from each other. The book is a timely addition to the arts therapy literature in a climate where interdisciplinary engagement is essential and is part of student education. It is an engaging read, detailing a variety of examples of creative collaborations across a range of arts therapies and psychotherapeutic professions. The book will resonate strongly with experienced practitioners who have an interest in working collaboratively, and will provide insight and inspiration to arts therapists and related professionals who may be considering working collaboratively, or those currently in training.

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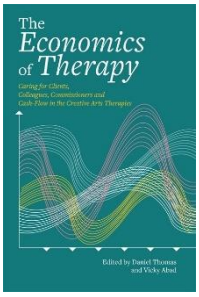
BOOK REVIEW

The economics of therapy: Caring for clients, colleagues, commissioners and cash-flow in the creative arts therapies (Thomas & Abad, Eds.)



Reviewed by Barbara A. Else
American Music Therapy Association, USA

Title: The economics of therapy: Caring for clients, colleagues, commissioners and cash-flow in the creative arts therapies **Editors:** Daniel Thomas & Vicky Abad **Publication year:** 2017 **Publisher:** Jessica Kingsley Publishers **Pages:** 240 **ISBN:** 978184905628

REVIEWER BIOGRAPHY
Barbara A. Else, MPA, LCAT, MT-BC, is a consultant and music therapist. Her graduate work was in health economics and health policy. Barbara was a Presidential Fellow with the US Public Health Service, where she served as research Health Science Administrator and Project Officer. She subsequently worked in the private sector in research and pharmacoeconomics. Barbara has authored numerous publications in health economics, including decision analysis, modelling cost drivers in health services, and cost-analysis methods. Currently, Barbara is a consultant to the American Music Therapy Association and with Development Laboratory, a consulting firm focused on development projects in conflict and post-conflict areas of the world. [BElseDevLab@gmail.com]

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The value proposition surrounding music therapy practice and the creative arts therapies is intricately tied to a complexity of factors, including: macroeconomics in the global marketplace; regional and local markets; policy trends; public and private financing schema; and a whole host of important questions in microeconomics. Understandably, this is a thorny and understudied topic in music therapy and creative arts therapies. Fortunately, The Economics of Therapy, Caring for Clients, Colleagues, Commissioners, and Cash-Flow in the Creative Arts Therapies, edited by Daniel Thomas and Vicky Abad, is a welcome contribution to the body of literature.

The scope and aims of this book are limited, as noted in the introduction by the editors. More specifically, the editors of the book set out to explore the commonalities and intersection of therapy and economics. Their approach is pragmatic and experiential, drawing upon the contributions of eleven authors among eleven chapters. Importantly, a discourse on topics in economics typically identifies the economic perspective(s) under examination. Questions in health economics may be approached from several economic perspectives: societal, provider/clinician, client/consumer, or payer. Even though the book acknowledges and broadly touches on each of these perspectives, the authors approach their discussions from the clinician's perspective. The reason for this approach, as noted passionately by the editors and authors, is a call for therapists to heed and respond to the

endogenous and exogenous forces bearing upon the sustainability and viability of creative arts therapies.

The reader benefits from the varied clinical and business experiences of the authors to inform important and knotty questions in the economics of music therapy and other arts therapies. As Brynjulf Stige notes in the forward, not all questions are addressed; however, the book makes a substantial contribution to prompting discourse. Stige offers an engaging and thoughtful forward to help contextually frame the book and highlight themes and arguments presented in the book. This includes the authors' focus on the inseparability of the economics of therapy from the ethics of clinical practice, given constrained resources and dynamic local markets affecting supply and demand. In a real sense, the forward and editors' introduction prompts the reader to reflect on one's own experiences, perspectives, and preconceptions about economics in the arts therapy marketplace.

The book is roughly divided into three sections. Section 1 includes chapters one and two and concentrates on current trends in funding therapy services as well as what commissioners want. Here, the term commissioner refers to any stakeholder purchasing creative arts therapy services on behalf of a client or group of clients; therefore, the authors address the consumer perspective by speaking to the role of commissioners. Section 2 consists of three chapters examining how clinicians may meet the needs of commissioners and funding entities in an environment of constrained budgets and shifting resources. Section 3 turns to applied case studies and includes an approach to teaching music therapy students about the business of music therapy using a tertiary training syllabus. Most of the chapters include supplementary resources or what the authors termed "go and do it" exercises to actively engage the reader in a whole host of activities to inform and increase awareness about creative arts therapy economics and business.

Section 1: Chapter 1, by Daniel Thomas and Vicky Abad, is titled the same as the book title. The authors concentrate on funding sources and their financing streams and models. Importantly, the authors begin with a strengths approach and highlight the importance of relationships in clinical and business practice. Sustainable practices in arts therapy require attention to economic health and the authors note the possibility of a variety of business models to accomplish this. Thomas and Abad recognise the juxtaposition of "money and therapy" may raise moral or ethical dilemmas among clinicians. The authors argue ethical concerns should not be avoided; rather, they should be given attention and approached with integrity and resolve. Chapter 2, by Alison Ledger, is titled *Entrepreneuring in Arts Therapies: Not Just Making a Swift Buck*. Alison relays, in part, findings from her dissertation focusing on the experiences of music therapists in developing new services. After offering a concise definition and explanation of models of entrepreneurship, the author extrapolates and cross-walks characteristics of music therapists that transfer and support good entrepreneurship and business growth.

Section 2: Translating skills from therapy practice to support business growth and economic acumen is a core theme of the book. Chapter 3 is a case in point. The chapter is authored by the editors and titled *RAILE – Building a Win-Win Business Model for Therapy*. RAILE is a model and acronym representing core clinical skills that also complement business development and business sales. Resiliency (R), attunement (A), improvisation (I), listening (L), and empathy (E) support clinical practice

and also translate to business practices to grow business, problem-solve, collaborate, network and communicate, and manage the business of therapy. If therapists feel trepidations about their knowledge, skills, and abilities concerning the business of therapy the authors tackle this head on, beginning with the therapists' clinical strengths. The fourth chapter, titled *For What It's Worth…Determining the Value of Music Therapy: An Example from Austria*, was co-authored by Monika Geretsegger, Elena Fitzthum and Thomas Stegemann. Following an informative discussion and contextual background regarding the Austrian health system and the role of music therapy practice in the context of national policy and the Music Therapists Act, the authors also outline education and training for the music therapist in Austria. This interesting context serves as foreground to a discussion of valuation of music therapy. The authors organise their discussion from various perspectives and include both macro- and microeconomic considerations. Most importantly, the authors triangulate the relationship and dependency of music therapy research and training with perceived value from multiple stakeholder viewpoints. Stine Lindahl Jacobsen closes out this section with chapter 5, titled *Ethics, Marketing and Transparency*. The emphasis of this important chapter concentrates on how therapists may integrate transparency, integrity, and ethical thinking into clinical practice. These aims are considered applicable and important no matter the business model, setting, or sector (public or private). Jacobsen offers a rubric of issues taken from clinical practice and research to guide discussion and organise her chapter. Issues include information transparency, ethical marketing, supervision, fee-setting, documentation, and client independence and termination of services. Jacobsen reminds us that these issues require clear communication and integrity in business practice and policy so commissioners (and consumers) know and understand what they are buying and the value of therapy. In short, the author is insightful and raises the critical importance of business and professional ethics to assert a credible and reliable value proposition for high-quality therapy services.

Section 3: The book closes with a series of case studies and descriptive chapters. The section begins with growing the business acumen among the next generation of music therapists. Chapter 6, by Petra Kern, is titled *Educating Students: Getting Ready for the Job Market*. Kern provides a creative and well-organised presentation of a tertiary five-week training curriculum for upper-level music therapy students to prepare them for the job market in the United States. The programme is highly experiential, involves a range of readings and materials tied to improving students' knowledge, skills, and abilities around music therapy business practices and growth. The readers enjoy an appendix with a detailed summary of the programme content, schedule, learning objectives, and assignments. Even though the nuts and bolts of business management (e.g. understanding and using accounting software) are not covered in the scope of this book, Kern sets the tone to inspire therapists to grow their base of knowledge, skills, and business practice abilities. Chapter 7 is authored by Rebecca Zarate and titled *Creative Arts Therapies and Business in the USA: Perspectives and Perception*. Zarate provides a personal narrative and description of creative arts therapies in business while highlighting the intricacies of navigating varied perceptions of the arts therapies among stakeholders and decision-makers. The author shares vignettes and experiences from ten creative arts therapists located throughout the country. Interestingly, Zarate draws upon education and learning theorist Étienne Wenger to emphasise how learning and knowing in the context of the economics of therapy takes

place in communities of practice. As such, multiple domains of learning are involved in clinical practice communities and extend to the network of civic and business communities. Having suggested a novel model for thinking about the intersection of economics and therapy, Zarate turns to the pragmatic aspects of business practice models in creative arts therapies. The intricacies of state and federal laws governing scope of practice and recognition of qualified clinicians are referenced and can be confusing, entangled with politics, and a source of frustration as described by Zarate. Keeping up with state regulations across all 50 states and territories is the work of advocacy and government relations in the United States; and, among music therapists, it a networked and coordinated process. It is important to note, in this case study, not all arts therapists are treated the same with respect to scope of practice, credentialing requirements, and recognition by state authorities across the many states. Zarate, therefore, refers to the importance of coalitions, mentoring, collaborative networks, and national credentialing for purposes of advocacy and growth of the profession.

The remaining chapters consist of four interesting case studies. Elaine Matthews Venter offers her perspective on a new private practice in New Zealand in chapter 8, titled *Developing an Arts Therapy Practice*. Matthews Venter provides a clear outline of the practical aspects of growing a new business start-up. She reminds us of the power of technology to optimise business marketing through online tools and social media channels such as YouTube and blog sites. The author shares a practical set of appendices with forms and templates tied to the business of clinical practice. Chapter 9 is titled *Managing Business Growth from the Bottom Up: Turning Your Small and Niche Passion into a Business*. This chapter, authored by Vicky Abad, opens with a captivating turn of phrase where Abad notes she started her business with a passion and not a plan. Abad describes her journey and path to building an active business step-by-step from the ground up as a small business person and with numerous demands and responsibilities. Abad shares her lessons learned and the advantages and disadvantages of growing a small business practice. Practical exercises are suggested to help manage and inspire the work of running a small business. Daniel Thomas offers the next case study in chapter 10, titled *Independence, Passion, and Resilience: Learning to Think Big from the Start*. With humour, Thomas leads the reader in a discussion of the dual role of resilience and passion for business-building and growth of the profession. He contextualises this discussion around the value and importance of a core vision for arts therapy practice. The conclusion of the case study includes two useful exercises to inspire collaboration, business networking, and development of interim goals in fulfilment of a professional and business vision. The last case study, by Kingman Chung, is titled *Striking a Balance: Music Therapist vs. Businessman in Hong Kong*. Chung describes the challenges and opportunities of growing a vital and active music therapy business in a major urban centre in Asia. He reminds the reader of the importance of culture on the design and delivery of therapy services and suggests clinicians consider the cultural context of business planning and growth. Finally, Chung cautions the reader not to under- or overestimate the impact of one's professional work. Instead, Chung advises an ongoing focus on quality, client-centred services delivered with passion, and professionalism.

In the context of the economics of therapy, Chung's closing thoughts bring the book full circle to highlight the importance of high-quality, ethical services delivered with integrity and using sound business practices. A reprise of the title, in summary, reminds the reader to attend to "clients, colleagues, commissioners, and cash-flow" as part of the economics of therapy. Indeed, given this

reprise, the value proposition for arts therapies may grow. In summary, this book takes on an immensely challenging but important topic and does so in an accessible and engaging fashion. I am grateful to the editors for their vision to bring this book to publication and to the many authors' contributions. I look forward to increased attention to the economics of therapy in the music therapy and arts therapy literature.

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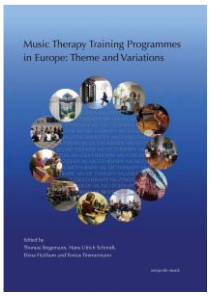
BOOK REVIEW

Music therapy training programmes in Europe: Theme and variations (Stegemann, Schmidt, Fitzthum & Timmermann, Eds.)



Reviewed by Potheini Vaiouli
European University, Cyprus

Title: Music therapy training programmes in Europe: Theme and variations **Editors:** Thomas Stegemann, Hans Ulrich Schmidt, Elena Fitzthum & Tomius Timmermann **Publication year:** 2016 **Publisher:** Dr. Ludwig Reichert Verlag **Pages:** 192 **ISBN:** 978-3-95490-179-1

REVIEWER BIOGRAPHY
Potheini Vaiouli, PhD, holds an interdisciplinary background in music therapy and special education. Her primary teaching responsibilities include courses in early childhood music education, music therapy, services and interventions for young children with special needs, and research methodology. Potheini's primary research interests focus on the use of music for supporting young children at risk and their families. Her research projects converge around the use of music therapy interventions to promote academic and social skills in all children, communication and language development of young children with autism, family partnerships, and the use of music in inclusive early childhood settings. [pvaiouli@gmail.com]

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Music Therapy Training Programmes in Europe: Theme and Variations, edited by Thomas Stegemann, Hans Ulrich Schmidt, Elena Fitzthum and Tomius Timmermann (2016), offers readers a thorough presentation of music therapy training programmes and courses in Europe. In the book, the editors acknowledge the great variety that different European music therapy programmes present in terms of their curricula, prerequisites, content orientation and the extent of training. While unfolding the rationale behind the programmes included in the book, they effectively make connections with the development of music therapy in Europe, the presence of different music therapy backgrounds and approaches, and important individual initiatives. Also, they point out regional and other differences in each country's programmes, such as different health care systems and differences in the legal status of the profession.

The introductory chapter sets the tone of the book and clearly explains how the focus is both on the similarities (the *theme*) and differences (the *variations*) among different music therapy education programmes, aiming to further support the development of music therapy in terms of training, research and practice.

The first part of the book includes a well-structured, synoptic overview of the current music therapy programmes offered in 45 different European countries. The readers will find information on the level of training offered in each country, the length of the programmes, the subjects taught, as well as the therapeutic approach and/or orientation that each programme is geared towards. Also, useful information is included regarding the curriculum and the cost of each programme. The use of maps, the division into five geographical areas (Central Europe, Eastern Europe, Southern and South-Eastern Europe, Western Europe, and Northern Europe) and the short commentary included at the end of each geographical area make the information easily identifiable and accessible to readers.

The second part of the book portrays ten selected music therapy programmes from various countries in the North, Middle and South of Europe. The editors begin each chapter by presenting a variety of useful information about each of the programmes (course structure, study period, target group, duration, and so on). They then effectively highlight the diversity and rich interdisciplinary context of music therapy programmes in Europe by elaborating on different theoretical backgrounds, the philosophy and the therapy principles behind each programme presented. Similarly, attention is given to important topics related to music therapy education that include clinical training, internships, and musical training within the respective curricula. Each chapter includes a reflection on the experiential learning and music-therapy self-experience part of the curricula, identifying the importance of this component for the integral preparation and growth of future music therapists. Finally, information is available on the evaluation procedures for each programme, and doctoral studies, where available.

In the third and last part of the book, the editors offer an overview of the information presented in the previous chapters and provide further insights and thoughts into the structure and the development of the music therapy profession in Europe. While they summarise the main components of the music therapy training programmes included in the book, they encourage readers to reflect on the active ingredients of a good music therapy programme that may enable and support students entering into the ever-growing field of music therapy in Europe.

Carrying the torch from the 2015 special issue in Approaches co-edited by Hanne Mette Ridder and Giorgos Tsiris, which was dedicated to music therapy in Europe, the editors of this book have succeeded in organising and presenting a great variety of information regarding the content and context of music therapy programmes in Europe. Furthermore, they have successfully posed important questions on the training and development of future music therapists. The book is recommended for the European music therapy community, including clinicians, prospective music therapy students, researchers, and professionals involved in the preparation, education and training of music therapists.

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REVIEW

Music and global health (Allison, Reed & Cohen, Eds.)

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This important double issue of the *Journal of Folklore Research* emerged from the 2013 Society for Ethnomusicology preconference symposium, *Music and Global Health: Seeking New Paradigms*. The one-day symposium, which was held on the campus of Indiana University-Purdue University Indianapolis, convened some 70 academics, artists, and activists from a wide range of disciplines: ethnomusicology and folklore; music therapy, performance, and composition; medical arts and sciences; public health and palliative care.

Five articles derived from papers presented at the symposium, along with the issue's introductory essay by symposium organisers and volume co-editors Theresa Allison, Daniel Reed and Judah Cohen, comprise the collection. Taken collectively, these six articles address "persistent questions underlying the role of music in public health advocacy and intervention efforts" (p. 1) while confronting the inherent challenges of interdisciplinarity more broadly.

In recounting the events of the 2013 symposium, Allison, Reed and Cohen observe that a single theme presented itself "with particular clarity" across all sessions and discussions; namely, that prospects for success on the part of ethnomusicologists in their music and global health ventures rely heavily "on full collaboration with our colleagues in the health sciences". Therefore, "team science" approaches – collaborative, interdisciplinary, and multidimensional – will be essential to ethnomusicology's achievement of a vital role in future research.

Invoking David Huron's claim that, "Regrettably, most cognitive scientists are ill-equipped to do remote field work, and few ethnomusicologists know how to do an experiment" (Huron, 2008, p. 457), Allison, Reed and Cohen offer an invitation and a challenge to prospective takers on all sides. They state that "…it is time to begin a partnership between those who can design a research

experiment and those who can successfully conduct fieldwork" (p. 3). At one level or another, the authors of the issue's five main articles answer the call.

André de Quadros gets the ball rolling in splendid fashion with *Music, the Arts, and Global Health: In Search of Sangam, its Theory and Paradigms*. This is the article version of his symposium keynote presentation. The Sanskrit term *sangam* is invoked by de Quadros "as a metaphor for collaboration and confluence." He explains that the term is generally used in Indian culture "to refer to the meeting point of rivers, a spiritual space," but that it is "increasingly used for referring to emerging movements, concepts, and objectives" as well, most especially in connection with those that bring unity across disparate spaces in their ability to foster "newness, innovation, and harmony" (p. 16).

Sangam, de Quadros proposes, is therefore a word that crystallises the proper spirit of interdisciplinary research conducted at the intersection of music and global health studies. Going one step further, he claims that "music" itself is too limiting a frame for the type of interdisciplinarity called for, since what we in the West conceptualise as music is often inseparable from related forms of cultural expression (dance, theatre, painting) in other world cultures, making "the arts" more germane than "music" as a catch-all moniker. (Another Sanskrit term, *sangita*, which encompasses music, dance, and drama as inextricable elements of Indian performing arts genres, might have been usefully employed here by de Quadros as well.)

As the article progresses, de Quadros uses case studies from his own research and activism to illustrate his *sangam* concept. We journey from a women's prison in Boston to a women's community theatre programme in Brazil, from the activities of a folk theatre troupe in India to those of a health literacy programme in Peru. These varied examples provide models of efficacious, arts-centred public health initiatives that serve to "mobilize poor communities and to provide meaningful contexts for health education and empowerment" (p. 20).

Michael Frishkopf's impressive and lengthy contribution to this volume takes the creative tack of treating popular music as a "public health technology". His case study is a highly ambitious public health programme, "Sanitation," which aims to provide clean and safe water for drinking, washing, and hygiene – along with safe, private locations for urination and defecation – in Liberia, a West African nation decimated by two civil wars in the late 1990s through to the early 2000s.

Frishkopf's virtuosic synthesis of a wide range of theoretical and methodological components in the project, which he describes as constitutive of his "Music for Global Human Development" approach, brings to the fore one modality in particular: participatory action research, or PAR. As he explains,

> Crucial to [the Music for Global Human Development] approach is the establishment of dynamic, open, intersubjective networks of participatory action research (PAR), comprising bundles of personal, adaptable, music-infused relationships that challenge the formidable barriers posed by differences in culture, language, and religion, and the yawning gaps in income, education, and living standards. (p. 42)

Pivotal to those music-infused relationships in "Sanitation" have been local popular music stars such as the Liberian producer, singer, rapper, and composer Shadow (aka Samuel Morgan). Shadow and other local music celebrities that he recruited were featured in two major video productions that

have served as the dual centrepieces of the project's public outreach efforts to date: the music video "Sanitation and Safe Water" and the documentary film "Sanitation".

Using popular music (which Frishkopf characterises as "the mass socio-cultural cognitive-affective system par excellence") as the primary medium for communicating crucially important messages on sanitation-related public health has proven highly effective, and the participation of Shadow and other Liberian pop stars has been invaluable to this effort. Since these musicians are "opinion leaders whose behaviors (observed or inferred) are widely admired and emulated," they have done more to spread the message and get local Liberians to buy into it than any number of official pronouncements could have. Moreover, the employment of local pop stars rather than global pop superstars, Frishkopf argues, has brought its own advantages, since the local musicians are relatable to, and more trusted by, the members of their local communities.

Austin Okigbo's brilliant study of the relationship of music and disease in South Africa from the early 18th century to the present, *South African Music in the History of Epidemics*, is unique in this issue on account of its incisively critical historiographical approach. Okigbo offers compelling evidence in support of his basic argument that if we wish to understand "the meaning that people make of their experiences of diseases", paying close attention to their musical responses to epidemics is key.

This point of departure prompts Okigbo to give close analytical and semiotic readings to selected songs representative of Black South African musical responses to three epidemics: the smallpox epidemic of the 18th century, the influenza epidemic of 1918, and the current HIV/AIDS pandemic. Through these readings and the historiographical trajectory of the project, Okigbo shows that musicological study can offer invaluable insights regarding how "sociocultural factors such as race and ethnicity, economics and spirituality, comprise important frameworks for constructing meanings around the issue of health and in the context of epidemics" (p. 87).

Along the way, Okigbo provides a powerful corrective to the rampant ahistoricism of so much scholarship on music in global perspective: the narratives and issues of racism, distrust, political and economic inequality, and stigmatisation that animate present policy and discourse in South Africa vis-à-vis the HIV/AIDS crisis are shown to have strong historical roots and continuities relative to the epidemics of centuries past. This article is an object lesson for all engaged in global public health initiatives, teaching us yet again that those who do not learn from history are doomed to repeat it, and that such learning requires paying close attention to sources of knowledge – like local songs – that are not likely to appear in refereed journal articles, official reports, and the like.

Niyati Dhokai's thoughtful and well-conceived article *Mediating Music and Culture in Medical Rehabilitation Settings* moves readers from the historiographical breadth of Okigbo's piece to a narrowly focused, case study-based, reflexive ethnography. Bringing her dual background in ethnomusicology and music education to her work as a postdoctoral fellow in a rehabilitation programme for military veterans with traumatic brain injuries in Washington, D.C., Dhokai expands out from her specific experiences to address a broad question: "What can an ethnomusicologist offer to healthcare settings?" Her experiential findings and reflections suggest that an ethnomusicologist, at least one as sensitive and committed as Dhokai herself, can offer a great deal indeed.

Premising her perspective on a 2014 article of mine that appeared in the Canadian ethnomusicology journal *MUSICultures*, Dhokai quotes the following passage from that work: "Ethnography is first and foremost about listening, and it is from listening to the people whose lives,

cultures, musics and the rest we endeavor to understand that we learn more than anything" (Bakan, 2014, p. 150). She then applies this priority to her own work in the veteran rehabilitation programme, and in reflecting upon the outcomes observed, arrives at the following conclusion:

> Listening to music together became a favorite music activity for a core group of participants and continues to be a highlight of their week. During rehabilitation, many participants often have a hard time relating to each other or even communicating with each other, because their post-injury cognition and communication problems cause challenges when they try to engage in conversation with each other. Sharing music often provides participants with an opportunity to participate in an activity together [...] By engaging with music through ethnomusicology, where the relationship between music and people is of primary focus, the participants have found camaraderie and support through the musical culture that they have developed for themselves and for each other as they have come together to share, and learn about, music. (p. 128)

Sceptical readers might question Dhokai's at least implicit claim that ethnomusicology holds some kind of unique purchase on "the relationship between music and people" as a "primary focus". Is that not at least equally true of music therapy, one might reasonably ask. A fair question, to be sure; and the correct answer is probably yes.

Yet Dhokai is on to something here, and something important. While both ethno-musicologists and music therapists might be said to do what they do with a primary focus on the relationship between music and people, they do so through fundamentally different lenses, since their aims are different and the expectations placed on them are different as well. This is a core distinction that affects theory and practice on both epistemological and pragmatic grounds, and one that I have wrestled with in some of my own publications, including a chapter in The Oxford Handbook of Applied Ethnomusicology, titled *Being Applied in the Ethnomusicology of Autism:*

> The field of music therapy is highly diverse […] Yet for all the ways in which they differ […] I would contend that there is a unifying thread binding together the endeavors of music therapists on the whole: put simply, they are committed to using music for therapeutic purposes, and therapy, by at least one standard definition [from Oxford], is "treatment intended to relieve or heal a disorder."
>
> As an ethnomusicologist […] my framework is ethnographic rather than therapeutic, musicological rather than pathological. I am not trying to provide treatment or to cure autism through musical methods or any other. Instead, I am trying to better understand and communicate with people identified as autistic by hanging out and making music with them, having conversations and listening well, and getting to know who they are and what matters to them (Bakan, 2015, pp. 280-281).

But how does Dhokai, as the lone ethnomusicologist in an interdisciplinary group of clinicians working at a veterans' rehabilitation centre, relate to such categories? It might be said that she inhabits a liminal space between my "music therapist" and "ethnomusicologist" types, placing her at a unique location in terms of both testing limits and fusing horizons as she attempts "to delineate a role within

a collaborative team [while] simultaneously facing ethical reporting boundaries of Federal guidelines such as HIPAA" (pp. 120-121).

Measurable outcomes of therapeutic interventions are both expected and required in Dhokai's work environment, which presents her with a basic challenge: how to be both *the* ethnomusicologist on the team and *an* ethnomusicologist committed to the tenets of the discipline in which she was trained. It is precisely such challenges that make this work (and that of the other contributors to the volume as well) so significant; for, in carving out new ethnomusicological paths in health science and global health terrains, scholars like Dhokai are helping to reshape both their own field and those with which it is becoming integrated.

The way in which such integration is – and is not – occurring is the focal point of the final article in the issue, Muriel E. Swijghuisen Reigersberg's *Collaborative Music, Health, and Wellbeing Research Globally: Some Perspectives on Challenges Faced and How to Engage with Them*. Writing from an applied ethnomusicology vantage point, Reigersberg bases her article on two years of fieldwork covering multiple locations in several countries (the United Kingdom, Austria, Finland, the United States, and Australia) and involving interactions with colleagues across multiple disciplines: (neuro) music psychology, music therapy, and the sociology of music. The findings of her research suggest that while practitioners in all of these fields, including ethnomusicology, share many of the same concerns and are asking similar questions, several obstacles must be overcome by ethnomusicologists "before increased interdisciplinary collaboration on a more global scale can occur" (p. 135).

Reigersberg identifies three principal areas of challenge in particular: (a) understandings of "what ethnomusicologists *do* and what ethnomusicology *is*" tend to vary considerably among prospective research collaborators; (b) there has, to date, been little cross-fertilisation involving scholars from the different fields – for example, in attending each other's conferences, publishing in each other's journals, and receiving training in each other's disciplines; and (c) discipline-specific terminologies have had a limiting effect on interdisciplinary collaboration, since the "ways in which researchers describe their work through language and research cultures vary, not just between disciplines, but also between countries and even institutions" (p. 136).

This list of challenges forms an excellent jumping-off point for the constructive critique that Reigersberg lays out through a critical examination of her own research experience. In her view, the critique is not only pertinent to scholarly and academic priorities but to ethical ones as well, for she asserts that "collaboration among a variety of disciplines" – most especially psychology, music therapy, and ethnomusicology – "is necessary for ethical reasons if we are to employ music to improve wellbeing and, indirectly, health" (p. 135).

This statement would seem to give explicit articulation to a two-part theme that unifies all of the articles in the volume: first, an ethnomusicological purview on matters of music, culture, health, and wellbeing is essential to music and global health research; second, ethnomusicologists acting alone are ill-equipped to meet the formidable challenges of conducting such research.

Reigersberg's list of challenges also provides a useful node of articulation for the final point I would like to make in this review, which seems especially germane given its venue of publication: a music therapy journal. In this case, I will take the liberty of flipping Reigersberg's list on its proverbial head a bit by challenging my fellow ethnomusicologists -including the ones who have contributed

articles to this important collection – to gain a deeper understanding of the one music and global health field with which they arguably share the most in common: music therapy.

We ethnomusicologists need to dedicate ourselves to better comprehending what music therapists do and what music therapy is at this critical historical juncture and moment of transformation in the music therapy discipline. We need to attend music therapy conferences, publish in music therapy journals, and receive training in the discipline's theories, methods, and techniques. We need to dedicate ourselves as much to mastering the discipline-specific terminologies of the music therapy lexicon as we have to mastering those of cultural anthropology, social theory, and cognitive psychology. Finally, we need to acknowledge in our own presentations and publications the interdisciplinary work that is already happening at the crossroads of our two fields, and in particular that which is being spearheaded by our forward-thinking music therapist colleagues: the 2015 special issue on medical ethnomusicology and music therapy in *Voices: A World Forum for Music Therapy* (co-edited by Jane Edwards, Gregory Melchor-Barz, and Bussakorn Binson); the 2016 Clive Robbins research symposium on neurodiversity, music therapy, and the autism spectrum at New York University (organised and hosted by Kenneth Aigen); and a substantive and ever-growing body of work by music therapists that demonstrates their deep immersion in ethnomusicological theories, methods, and epistemologies, as evidenced, for example, by Aigen and Edwards, as well as Karen Wacks, Brynjulf Stige, Even Ruud, Randi Rolvsjord, Rune Rolvsjord, Mercédès Pavlicevic, Susan Hadley, and Helen Loth.

I define ethnomusicology as "the study of how people make and experience music, and of why it matters to them that they do" (Bakan, 2018, p. 58). The eight contributors to the special issue of the *Journal of Folklore Research* reviewed here have made a most convincing case, both individually and collectively, for the notion that two of the principal reasons music matters to people is that it can enable health and wellbeing, on the one hand, and can combat the forces of marginality, poverty, oppression, and disenfranchisement that preclude health and wellbeing, on the other. This same cohort of contributors makes another compelling case as well, namely, that it is by working together-across disciplines, across professions, and across divides that have conventionally separated those who do research from those about whom research is done--that research on music and global health stands to make its greatest advances.

It is important that the *Journal of Folklore Research* published a special issue on music and global health, and it is perhaps no less important that the editor of a music therapy journal, Giorgos Tsiris, made a special effort to solicit the present review of that publication. These are the kinds of developments that give cause for great optimism regarding the future prospects of interdisciplinary research in this growing area of endeavour.

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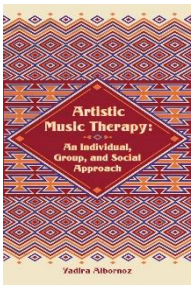
ΒΙΒΛΙΟΚΡΙΤΙΚΗ

Artistic music therapy: An individual, group, and social approach (Albornoz)



Από τη Γιώτα Ανδρεοπούλου

Ανεξάρτητη μελετήτρια, Ελλάδα

Τίτλος: Artistic music therapy: An individual, group, and social approach **Συγγραφέας:** Yadira Albornoz **Έτος:** 2016 **Εκδότης:** Barcelona Publishers **Σελίδες:** 244 **ISBN:** 978-19-3744-090-9

ΒΙΟΓΡΑΦΙΑ ΚΡΙΤΗ

Η **Γιώτα Ανδρεοπούλου** είναι απόφοιτη του Τμήματος Μουσικών Σπουδών του Ιονίου Πανεπιστημίου και του Πανεπιστημίου της Βαρκελώνης (Μεταπτυχιακό στη Μουσικοθεραπεία). Από το 2007 εργάζεται ιδιωτικά και σε συνεργασία με διάφορες δομές και φορείς στην Ελλάδα, δουλεύοντας με διαφορετικές πληθυσμιακές ομάδες σε ποικίλα θεραπευτικά και εκπαιδευτικά πλαίσια. Συμμετείχε στο ερευνητικό πρόγραμμα του Πανεπιστημίου Πατρών «ΠΑΥΕΥΣ», διετέλεσε εργαστηριακή συνεργάτης στο ΤΕΙ Πάτρας, και έχει συμμετάσχει σε συνέδρια, σεμινάρια, εργαστήρια σε Ελλάδα και Ευρώπη. Παράλληλα λειτουργεί προγράμματα μουσικής έκφρασης και αυτοσχεδιασμού για βρέφη, παιδιά, εφήβους και ενήλικες. [yiota_andreou@yahoo.gr]

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Το βιβλίο αποτελείται από 15 κεφάλαια και χωρίζεται σε δύο κυρίως μέρη. Στο πρώτο μέρος παρουσιάζεται το θεωρητικό υπόβαθρο της καλλιτεχνικής μουσικοθεραπείας (MAR - Artistic Music Therapy) υπογραμμίζοντας τη σημαντικότητα του κλινικού αυτοσχεδιασμού και τη δράση στο «εδώ και τώρα», τη σπουδαιότητα του θεραπευτικού πλαισίου, την ανάγκη της προσωπικής εξέλιξης της μουσικοθεραπεύτριας ως θεραπεύτριας αλλά και ως καλλιτέχνιδας. Η μουσικοθεραπεύτρια αναπτύσσει και εμπλουτίζει διαρκώς την ικανότητά της να συντροφεύει τη θεραπευτική διαδικασία μουσικά με την απαραίτητη επίγνωση και χωρίς να κατευθύνει το μουσικό υλικό, ξεπερνώντας οποιοδήποτε μουσικό δογματισμό και ακαμψία, αλλά και να υποστηρίζει τη συνδυαστική χρήση τεχνών, όταν απαιτείται, όπως η ποίηση, η αφήγηση, ο χορός, το θέατρο, όλα σε συνδυασμό με τη μουσική. Με τον όρο «καλλιτεχνική» η συγγραφέας δεν εννοεί ωραιοποιημένη μουσική ή τέχνη. Το καλλιτεχνικό προϊόν γεννιέται από μια θεραπευτική δημιουργική διαδικασία, διαπλάθεται και μπορεί μετά από επιλογή του ασθενή[1], από πρόταση της θεραπεύτριας ή από απόφαση και των δύο να παρουσιαστεί σε κοινό ανάλογα με το πλαίσιο, τον πληθυσμό, τη δομή και τον φορέα.

Πρωταρχική τεχνική αποτελεί ο κλινικός αυτοσχεδιασμός όπου με βάση αυτόν προκύπτει η οποιαδήποτε καλλιτεχνική απόδοση του μουσικού ή εκφραστικού υλικού. Η χρήση της λεκτικής

[1] Επιλέγεται ο όρος «ασθενής», λόγω της χρήσης του στο πρωτότυπο κείμενο από τη συγγραφέα.

επικοινωνίας είναι περιορισμένη και δεν θα περιέγραφε κανείς την καλλιτεχνική μουσικοθεραπεία ως μια ερμηνευτική μέθοδο, αλλά ως μια μέθοδο που η έκφραση (λεκτική ή μη) πραγματοποιείται με οποιαδήποτε μορφή τέχνης συνδυάζοντάς την σε ένα μουσικό πλαίσιο που προκύπτει από τη διαδικασία. Σύμφωνα με τη συγγραφέα κύριος στόχος αυτού του μοντέλου είναι να ενδυναμώσει τη δημιουργική έκφραση έτσι ώστε να αρχίσει να σχηματοποιείται ό,τι έχει ήδη προκύψει κατά τη θεραπευτική διαδικασία ώστε να χρησιμοποιηθεί σε ένα αισθητικό πλαίσιο όπου οι ασθενείς θα επεξεργαστούν το επίπεδο προσωπικής επίγνωσης, τη σύγχυση και τον ψυχικό πόνο που εμποδίζουν την προσωπική τους εξέλιξη. Η μετατροπή των καταστροφικών συνηθειών του ατόμου σε δημιουργικά πρότυπα αποτελεί βασική διάσταση της καλλιτεχνικής μουσικοθεραπείας θεωρώντας αυτή τη μετατροπή αναμφίβολα πιο σημαντική από την επιφανειακή εξομάλυνση ή την κατάκτηση ενός τυποποιημένου συνόλου κατορθωμάτων.

Η μουσικοθεραπεύτρια είναι απαραίτητο να είναι μια έμπειρη μουσικός και συνθέτρια, εκτελέστρια και μαέστρος που να μπορεί να ενσωματώνει στην έκφρασή της και στοιχεία από άλλες τέχνες, με ροή εναλλαγών, να είναι εξοικειωμένη με διάφορα ήδη μουσικής, να κατανοεί την τέχνη αλλά και να έχει ανεπτυγμένη κοινωνιολογική αντίληψη. Είναι οπωσδήποτε αναγκαίο να έχει αναπτύξει την ικανότητα να εναλλάσσει τα εκφραστικά μέσα ακόμα και κατά τη διάρκεια της ίδιας συνεδρίας εφόσον αυτό είναι θεραπευτικά απαραίτητο. Σημαντική πτυχή του συγκεκριμένου μοντέλου είναι οι συμφωνημένες πρόβες, εφ' όσον προκύψει η ανάγκη να παρουσιαστεί σε κοινό το αποτέλεσμα, όπου διαμορφώνεται το εκφραστικό υλικό που έχει προκύψει από τους κλινικούς αυτοσχεδιασμούς. Παραμένουν ωστόσο μερικώς αναπάντητα ερωτήματα του τύπου: Πώς διαφοροποιούνται οι πρόβες από τις πρόβες για μια συναυλία; Όταν κριθεί κατάλληλο το θεραπευτικό προϊόν για παρουσίαση, το προϊόν αυτό υπόκειται σε επεξεργασία και, εάν ναι, με ποιον τρόπο και από ποιον; Ποια είναι η θέση και η συμμετοχή της μουσικοθεραπεύτριας κατά τη διάρκεια της παρουσίασης; Σε περίπτωση που συμμετέχει στο σύνολο μουσικοθεραπείας (music therapy ensemble) και η ίδια η μουσικοθεραπεύτρια, η σύμβαση της επιτρέπει να παραμείνει χωρίς να κατευθύνει μουσικά τη διαδικασία; Πώς αποφεύγεται ο μουσικός παρεμβατισμός σε δημόσιο πλαίσιο;

> Έχω ήδη σημειώσει ότι η καλλιτεχνική μουσικοθεραπεία δανείζεται από το μοντέλο της Alvin την ελευθερία και την έννοια της ισόρροπης σχέσης (θεωρώντας ότι ο ασθενής και ο θεραπευτής είναι εξίσου σημαντικοί για την ενίσχυση της θεραπευτικής διαδικασίας μέσα από διαφορετικούς ρόλους), συγχρόνως μαζί με την εκφραστικότητα από τους Nordoff και Robbins (1977) και την πεποίθηση ότι μπορεί να υποστηριχθεί η θεραπευτική διαδικασία βασιζόμενη και σε άλλες μορφές τέχνης εάν κριθεί αναγκαίο όπως παρουσιάζεται στο Henmlich (Bruscia 1987, στο Albornoz 2016, σ. 20).

Αξίζει επίσης να αναφερθεί ότι η συγγραφέας επηρεάζεται στο μοντέλο της από τον Βουδισμό αλλά και την κουλτούρα των Αμερικανών ιθαγενών Abya Yala, όπου η πνευματική υγεία και διαύγεια βασίζονται στην καθημερινή γενική καλλιτεχνική εμπειρία.

Ουσιαστικά η συγγραφέας προτείνει ένα μοντέλο θεραπείας που βασίζεται στην αναζήτηση της απόλυτης ψυχικής έκφρασης και προσωπικής αλήθειας συνδυάζοντας τις παραπάνω

πρακτικές μουσικοθεραπείας, καταλήγοντας σε ένα δομημένο και πιο συμβατικό πλαίσιο όπως αυτό της δημόσιας παρουσίασης. Προσωπικά θεωρώ ότι προσπαθεί να εξασφαλίσει ένα αρχέγονο θεραπευτικό υλικό μέσω του μοντέλου της Alvin και της κουλτούρας των ιθαγενών, το οποίο όμως μέσα από τον στόχο της δημόσιας παρουσίασης και της πρόβας επαναπροσδιορίζεται, καλλιεργείται και εξευμενίζεται. Νομίζω πως είναι κατανοητό ότι για να καταλήξει το μουσικό υλικό σε μια παρουσίαση, όταν αυτό είναι επιθυμητό, η διαδικασία επιζητά την ανάπτυξη των μουσικών δεξιοτήτων, την καλλιέργεια του «μουσικού παιδιού», όπως αυτό ορίζεται από τους Nordoff και Robbins, ενώ η συνδυαστική χρήση οποιουδήποτε άλλου εκφραστικού μέσου συμβολίζει την προσπάθεια για μια συνολική αντιμετώπιση της ανθρώπινης ιδιοσυγκρασίας βασισμένης στην συμπληρωματικότητα.

Η συγγραφέας στο πρώτο μέρος του βιβλίου περιγράφει με σαφήνεια τη θεωρητική προσέγγιση του μοντέλου που προτείνει ενώ παράλληλα παρουσιάζει διεξοδικά το πλαίσιο σε ατομικό και ομαδικό επίπεδο, τον τρόπο και τη δομή που εφαρμόζεται. Ευστόχως σύντομα αποσπάσματα περιπτώσεων προσωπικής δουλειάς με ασθενείς συντελούν στην κατανόηση του μοντέλου, ενώ χωρίς να χάνει ευκαιρία υπογραμμίζει την αναγκαιότητα της προσωπικής εξέλιξης της μουσικοθεραπεύτριας σε ένα πολυδιάστατο ολιστικό επίπεδο. Η διά βίου εξέλιξη του θεραπευτή που προτείνει προέρχεται από την εμπειρία της σε ποικίλες και διαφορετικές εποπτικές, θεραπευτικές και εκπαιδευτικές δομές, αλλά και από τις οικογενειακές ρίζες της, όπως αυτές διαμόρφωσαν την ιδιοσυγκρασία της.

Σε μια προσπάθεια να εμβαθύνει, η συγγραφέας προσπαθεί να παρουσιάσει την κατάσταση του συστήματος υγείας στη Λατινική Αμερική, μελετώντας το σε σχέση με τον πληθυσμό από μια κοινωνιολογική σκοπιά. Η «ανάμεικτη» και διαμετρικά αντίθετη προέλευση του πληθυσμού καθώς και το ιστορικό, κοινωνικό επίπεδο σε συνδυασμό με την κουλτούρα του λαού κάνουν σχεδόν αδύνατο ένα σύστημα υγείας βασισμένο στη δυτική προσέγγιση. Έτσι, προκειμένου να καταγράψει τα στοιχεία εκείνα που θα διαμορφώσουν ένα σύστημα υγείας το οποίο θα ωφελήσει και θα ταιριάξει στη Λατινική Αμερική, απασχολείται με θέματα όπως η προέλευση του πληθυσμού, οι επιδράσεις της αποικιοκρατίας και η φιλοσοφία των ιθαγενών. Υπογραμμίζει την αναγκαιότητα να λαμβάνονται υπόψη οι ιδιαιτερότητες του πληθυσμού και προτείνει τον κλινικό αυτοσχεδιασμό ως το εργαλείο που μπορεί να τις συμπεριλάβει και να επιτρέψει την αναζήτηση της ισορροπίας ανάμεσα στη σκέψη, το συναίσθημα και τη διαίσθηση (PESEIN)[2] παρέχοντας το χώρο όπου το άτομο μπορεί να συνδεθεί με την προσωπική/καλλιτεχνική του επίγνωση συμμετέχοντας σε μια καθολική ολοκλήρωση.

Στο δεύτερο μέρος του βιβλίου η συγγραφέας ασχολείται με τη μουσικοθεραπεία και τις καταχρήσεις νόμιμων και παράνομων ουσιών. Περιγράφει την κοινωνικοπολιτική διάσταση του θέματος των καταχρήσεων ενώ αναλύει τις θεραπευτικές παρεμβάσεις που ακολουθούνται υπογραμμίζοντας το συμπληρωματικό ή και καθοριστικό ρόλο που μπορεί να πάρει η καλλιτεχνική μουσικοθεραπεία, απευθυνόμενη στον άνθρωπο ως σύνολο και όχι απομονώνοντας το πρόβλημα. Η επικεντρωμένη στον αυτοσχεδιασμό καλλιτεχνική μουσικοθεραπεία επιτρέπει στους ασθενείς να συνδεθούν με την προσωπική τους σοφία και να συμφιλιωθούν με την θεραπεία και τις

[2] Ο όρος PESEIN αφορά στο νοητικό-σωματικό συγχρονισμό που προκύπτει από τη μουσική διαδικασία καθώς η σκέψη (PE), οι αισθήσεις (SE) και η διαίσθηση (IN) συγχρονίζονται.

προσωπικές δυσκολίες που αντιμετωπίζουν (Albornoz 2002). Ασχολείται με τη συννοσηρότητα και τους τρόπους με τους οποίους η καλλιτεχνική μουσικοθεραπεία μπορεί να αποτελέσει ένα διαγνωστικό εργαλείο είτε για παθήσεις που υποβόσκουν είτε για παθήσεις με εμπλεκόμενα συμπτώματα. Τέλος, αφιερώνει το τελευταίο κεφάλαιο στην κατάχρηση ουσιών, τη συννοσηρότητα και τις σεξουαλικές δυσλειτουργίες με την ανάλυση ενός περιστατικού όπου η καλλιτεχνική μουσικοθεραπεία αποτέλεσε διαγνωστικό εργαλείο, ανέδειξε το βασικό πρόβλημα και παρέπεμψε σε άμεση και εύστοχη θεραπευτική παρέμβαση. Φυσικά δεν μπορεί να μην αναφερθεί ότι το βιβλίο κλείνει με αυτήν την βιβλιογραφική καινοτομία: την πρώτη καταγραφή περιστατικού μουσικοθεραπείας που αφορά στην σεξουαλική υγεία.

Το βιβλίο είναι γραμμένο σε απλή και κατανοητή γλώσσα. Θεμελιώνει ως γεγονός ότι το μοντέλο στρέφεται στον κλινικό αυτοσχεδιασμό ως μέσο για να αντιμετωπίσει τον άνθρωπο ως σύνολο και όχι μόνο ως μια παθολογία. Πρακτικά υπάρχει δυσκολία να εκπαιδευτεί μια μουσικοθεραπεύτρια εξ αρχής ως πολύ-εκφραστικό εργαλείο, ωστόσο γίνεται κατανοητό ότι η ικανότητα αυτή μπορεί να επέλθει μέσω της εμπειρίας, της διορατικότητας στη θεραπεία αλλά και της διά βίου εξέλιξης της μουσικοθεραπεύτριας όχι αποκλειστικά σε μουσικοθεραπευτικό πλαίσιο. Το βιβλίο απευθύνεται σε επαγγελματίες μουσικοθεραπευτές καθώς είναι εξειδικευμένο, περιλαμβάνει πολλές σύνθετες πληροφορίες που δεν μπορούν να αναλυθούν από άλλους επαγγελματίες υγείας, ενώ περιγράφει διαφορετικές πληθυσμιακές ομάδες και πλαίσια.

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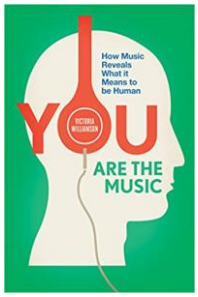
BOOK REVIEW

You are the music: How music reveals what it means to be human (Williamson)



Reviewed by Olusegun Stephen Titus

Obafemi Awolowo University, Nigeria

Title: You are the music: How music reveals what it means to be human **Author:** Victoria Williamson **Publication year:** 2014 **Publisher:** Icon Books Ltd **Pages:** 224 **ISBN:** 978-1848317437

REVIEWER BIOGRAPHY

Olusegun Stephen Titus is a university lecturer at Obafemi Awolowo University (OAU), Nigeria. His research focuses on medical and environmental ethnomusicology. He received IFRA health humanities workshop sponsorship in 2012. Through the TETfund grant in 2012 he organised HIV/AIDS awareness musical concerts for barbers and hairdressers in Kogi State, Nigeria. He is an AG Leventis Postdoctoral Fellow and was visiting scholar at SOAS, University of London, UK, in 2014. Titus collaborated with the Faculty of Clinical Sciences and Institute of Public Health, College of Health Sciences, OAU, and organised HIV/AIDS world concerts in 2015. He earned a doctorate degree in ethnomusicology from University of Ibadan, Nigeria, in 2013. [segungeneral@gmail.com]

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Victoria Williamson is a music psychologist and a faculty lecturer in the United Kingdom. *You Are the Music* is a study of why music is a part of our everyday lives, from the perspective of music psychology. From the introduction to the last chapter, the writer introduces us to how she got engaged in music and music psychology; the paternal factor in her engagement with music, riding on her father's introduction and encouragement in reading music books early in life, is quite strong. The writer notes that she is not only addicted to music, she is also working out why she is passionately committed to music.

The book begins with why music is so much a part of our everyday lives. Williamson describes music psychology as a vibrant science that examines the relationship between music and our mind, brain and body. Music psychology focuses on examining the impact of music on our everyday life. Williamson's explanation of music psychology is further supported by other researchers (e.g., Tan, Pfordresher & Harré, 2010; Sloboda, Lamont & Greasley, 2009), who say that music psychology may be regarded as a branch of both psychology and musicology. It aims to explain and understand musical behaviour and experience, including the processes through which music is perceived, created, responded to, and incorporated into everyday life. It is, therefore, noteworthy to say that music psychology encapsulates the daily musical experiences and encounters from birth to death.

The book lists findings and theories through which researchers have sought to tell the story of "why we live with music" (p. 3). The author notes that music can trigger growth in the brain at any age, and this has been linked to enhancement of hearing acuity, language-learning and motor control. It can help improve recovery from illnesses and injury. Williamson argues that music is part of what

turned us into the modern human that we recognise today, and that this sense of our musical lives provides a glimpse into what it means to be human.

The first part of this book focuses on music and the unborn child. The author reiterates that there is such a thing as talent and prodigies. She notes that music until about the fourth month of pregnancy is meaningless. Given that a foetus is surrounded by amniotic fluid, we can assume that they perceive sounds a little like when music is played underwater. Most of the sounds common at this time are the mother's digestive system, air movements through her lungs and the activity of her heart and blood vessels. Williamson argues that the debate on nature and nurture is valid; when it comes to new-borns' ability in relation to foetal exposure to music in the womb, it is noted that such exposure will enhance better musical performance in later life.

The second chapter enumerates theories of music in childhood. It particularly discusses the Mozart effect and development theory. Mozart-effect theory started in 1995 with the publication of Rauscher, Shaw and Ky's work in *Neuroscience Letters*. They speculate that hearing Mozart's music might strengthen neutral firing in an area of the brain that also supports performance on spatial-temporal tasks. However, just listening passively to music generally, and Mozart's music in particular, does not necessarily increase child development; rather the child must undertake active engagement with music. This shows that Mozart's music as source of mental reawakening cannot really be generalised. Music lessons could impact positively on a child's development in hearing, listening, and language and reading. Furthermore, in effective music education, the child's love for the instrument, the ability of teachers to maintain motivation, and practice, all count for children.

In Chapter Three, the author focuses on adolescence. She argues that music that is most cherished in the adolescent years is cherished through the rest of a person's life. This adolescent period tends to focus on music for the mood and emotions. Williamson argues that music has specific roles in changing mood and emotions, such as happiness, sadness, and anger. Adolescence is a time full of strength, energy and changing moods. Music, according to the author, can be a comparatively safe option to drugs for emotion and mood expression and regulation. According to Saarikallio (2007), the four main functions of music are identity, interpersonal relationships, emotion and agency.

In the second part of the book, in Chapter Four, the author explains the role of music in adult life. She explains the role of music in changing the brain; we are never too old to learn and for the brain to change, and learning to play an instrument or sing can be a powerful way to stimulate the mind. Chapter Five explores the use of music at work; it elucidates the history of music at work and music in the indoor office. Background music in offices is good for work, especially music that the officer or office worker loves to listen to. It affects or causes psycho-physiological arousal, cognitive engagement and is mood-changing. This chapter also enumerates music preference and choice. It furthermore explains the place of music in the community; especially in the commercial world, as it affects consumers through the secret messages in music. A good example is the advertising power of music to lure people to buy things like clothing. Chapter Six focuses on music and play. It encapsulates the place of music in daily life and activities, which include exercise, work, and romance.

The third part of the book starts with Chapters Seven and Eight, which discuss music across the lifespan. Williamson's emphasis here is on music and lifelong wellbeing, music therapy and music medicine. Other areas include music and autism, Attention Deficit Hyperactivity Disorder (ADHD), and dyslexia. Williamson notes that music as therapy and music as medicine are adjunctive treatments to

support well-being throughout the human lifespan. She observes also that the music of one's life may one day have the power to support one through difficult and traumatic times. She further notes that music is not a pill, a solution or a cure when it comes to times of trouble, but it can be an important and flexible source of personal support, consolation connection and inspiration.

Overall, Williamson's book vividly communicates how music can reveal what it means to be human in our day-to-day activities and endeavours. A gap observed in the book pertains to the role of music in relation to death and dying. This gap could perhaps be addressed in a future edition.

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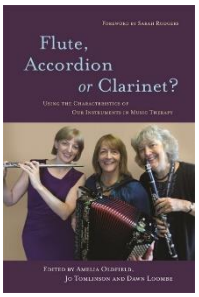
BOOK REVIEW

Flute, accordion or clarinet: Using the characteristics of our instruments in music therapy (Oldfield, Tomlinson & Loombe, Eds.)



Reviewed by Fontane Liang

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Title: Flute, accordion or clarinet: Using the characteristics of our instruments in music therapy **Editors:** Amelia Oldfield, Jo Tomlinson & Dawn Loombe **Publication year:** 2015 **Publisher:** Jessica Kingsley Publishers **Pages:** 344 **ISBN:** 978-1-84905-398-3

REVIEWER BIOGRAPHY

Fontane Liang has worked in the NHS (UK) specialising in adult mental health. In her private work, she has worked with children with special needs, including autism, hearing and visual impairment. After training as a neurologic music therapist, she has worked privately in neurorehabilitation. Currently she is working with adolescents at the Institute of Mental Health and in dementia care at Ng Teng Fong General Hospital in Singapore. She is also a freelance professional harpist and has performed with the London Sinfonietta, Royal Liverpool Philharmonic and Singapore Lyric Opera. [Guoting_Fontane_LIANG@imh.com.sg]

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> Music is nothing more or less than a disturbance of the air [...] Music inhabits this world of vibration by pipe, by string, by skin, by block, and this in turn is what resonates with the human being. (p. 9)

This beautiful passage in the *Foreword* by Sarah Rodgers sets the intimate tone for this book. Set across 14 chapters, each one is dedicated to a particular instrument. At least two music therapists contribute to each chapter, reflecting on the use of their first-study instruments in the clinical room. There was an international representation amongst the authors, although most were from the UK.

At first glance, one will quickly notice that the instruments covered in this book are mainly European-centred and traditionally Western orchestral instruments, with the addition of the accordion, guitar and the saxophone. Interestingly, the editors found it difficult to find contributors who play the French horn, hence this particular instrument was not featured. The editors explain in the *Introduction* that it was a conscious decision not to include percussion, keyboard or voice, as these have already been covered extensively in current music therapy literature. Indeed, in my opinion, the use of percussion, keyboard and voice might even be considered a 'standard care' or 'baseline' of instruments used in music therapy. Since training courses in the UK audition prospective students based on their first-study (or second-study) instruments alongside keyboard and singing skills, it would make sense to look at the practical use of these first-study instruments in everyday clinical practice. If clinicians or music therapy students have doubts on the use of their first-study instrument in clinical work, they could look to this book for inspiration and ideas.

The way the book is structured means the reader can hone in on the chapter relevant to their own instrument or interests. Usually music therapy literature is structured around a particular client group or clinical setting. In this book, however, it is refreshing to read about clinical work from an instrument-choice perspective. I was particularly interested in the chapters on *Harp* (being a harpist myself); the *Flute* (as it is an instrument I played a long time ago but never thought of using because I do not view myself as a professional flute player); the *Cello* (because I adore its sound and have often imagined its use in clinical sessions) and the *Guitar* (as this is a compulsory instrument for music therapists who train in the USA but not for those trained in UK). I was pleasantly surprised at the little homage to Juliette Alvin in the *Cello* chapter; founder of the music therapy course at my alma mater, Guildhall School of Music and Drama, and someone who did use her cello extensively in her clinical work (Alvin 1966).

Each chapter begins with a brief 'Introduction' to the instrument, its history and the note range, reminiscent of orchestration books. Each contributor then shares their very personal relationship with their instrument and illustrates the use of their instrument through case vignettes. The chapters end with a summary of the characteristics of these instruments as therapy tools and the advantages and disadvantages of using these instruments. It is this section that relates back to the title of the book – *'Using the Characteristics of Our Instruments in Music Therapy'* – and, without which, the book would chiefly be a collection of case vignettes categorised according to the main instrument that featured in the vignettes. I found this last part to be most insightful for informing clinical practice; as even if the reader does not play a particular instrument, he or she can identify with the characteristics and think about how to apply them to one's instrument. Conversely, understanding each instrument's natural limitations that affect the therapy process, could spur the reader to look for alternative instruments or musical tools instead. In my own search to discover ways of using the harp in the sessions, I was faced with the issue of portability and safety vs. depth of sound for grounding. I came to accept that if I wanted to use my less-domineering, portable lap harp, I would not be able to play lush, low-register bass notes and rich chords. Therefore, I found a compromise through supplementing with the Korg Kaossilator, a portable electronic sound synthesiser that allowed me to loop in bass notes and chords, whilst playing the harp acoustically.

Across the chapters, I found the contributors knowledgeable and creative in the use of their instrument in the clinical settings. Whilst some generalised about how a characteristic of their instrument allowed them to attune to their client – for example, movement and mobility, pitch-bending ability – others were more detailed in describing what they actually played in the session, some even to the extent of transcribing what they played. The more detailed documentation might be useful for clinicians and music therapy students looking for concrete examples of musical material. This was also useful in helping me to expand my thoughts on how I might use an instrument in less conventional ways and also to be aware of other available techniques for a client. Whilst training, we were introduced to basic guitar skills that mostly involved the guitar as an accompaniment. In the *Guitar* chapter, the reader is invited to view the guitar in a melodic capacity and consider use of slide guitar to imitate the human voice. I find the latter suggestion a novel technique for clients who want to try this instrument but get frustrated by stopping strings to strum chords. I also recently introduced the violin and cello into my sessions as requested by some clients. The experiences of violin- and cello-playing music therapists of introducing their first-study instrument to their client gave me ideas on

how to explain the basic skills for sound production to clients. Hence this book is not only for those who want to know about the characteristics of an instrument they already play, it can also be a reference for how to introduce instruments that are less familiar to the therapist into the session.

I used to wonder how other harpists might use their instruments in therapy, and it was not until I met fellow harp-playing music therapists at work that I began to find out more about using the harp in a clinical setting. It was comforting to know that they had similar concerns about bringing their large pedal concert harps into the clinical setting. For those who might not have had the opportunity to meet fellow music therapists who use the same instrument, this book brings these fellow instrumentalists to you. I find this book a group therapy of sorts, as it compiles contributors' reflections on their relationship with their instruments, considerations of identity, and their concerns about their instrument even before the client enters the therapy room. These were all issues that we touched upon during training, but which I had never really thought about too much – having had minimal clinical experience, they did not seem a major concern. Looking back, it would have been useful to have conversations with fellow instrumentalists about the dynamics and emotions of shifting one's playing and instrument from the concert hall to the therapy room. I appreciated, in particular, Dunn (p. 31) talking about how one's instrument is an extension or a pared-down core version of oneself, creating a sense of a joint openness and vulnerability between therapist and instrument which allowed him to be real in the therapy room. Warnes' reflection (p. 151) on the difference between using instruments in professional playing and in clinical settings, and Harrison's drawing of parallels (p. 171) between aspects of becoming a violist and a client's change in therapy, were striking for me as well, as they shared how they juggled their identity as a professional musician and a music therapist.

I had a recurring thought whilst reading this book – certain instruments seem like they would work better with certain client groups. Should therapists then play to their strengths, so to speak, knowing that their particular instrument works better, for example, in palliative care? Specifically, two chapters in the book – on *Accordion* and *Harp* – had an additional section. The *Accordion* chapter touched on the social and cultural aspects of the accordion and the *Harp* chapter covered harp-therapy training and music-thanatology training. Both sections highlighted unique uses of the instrument which might not be achieved by other instruments because of deep-rooted historical associations that might even border on spiritual associations. I wondered if clients who are asylum-seekers and refugees from the Middle East might find it easier to relate to an accordion-playing music therapist. The portability of an accordion, drums and guitar also seemed to make them an ideal musical and logistical choice, to take into camps and sites (Refugee Council 2018). Reading the section on music-thanatology (pp. 192-196), I was reminded of an earlier invitation to work in palliative care and personally inspired to consider the distance-learning course.

The book highlights the characteristics of the different instruments, but each individual reader has to be creative in harnessing them. This book could be viewed as a handbook that therapists may revisit to remind themselves of the characteristics of their instrument that can hinder or help the therapeutic process. Coming to understand the unique and contrasting characteristics of each instrument, I began to wish I played an entire orchestra myself! However, this would not be feasible, and mastery of an instrument is more important than variety in order to truly communicate with a client. Perhaps clinicians could turn to this book to look for inspiration in deciding which instrument to add to their musical arsenal. I will never quite be able to mimic the human voice's ability to bend

pitches on the keyboard or harp, the two instruments I use in my clinical sessions; and this led me to begin wondering, why not revisit the flute – an instrument I played when younger and whose characteristics seem to fill the gap in my musical toolkit. So, I was thankful for this book for inspiring me to begin to explore this idea.

I found this book approachable and almost 'light' reading because of the amount of case vignettes. There was some analysis of the musical choices in relation to theory, but compared to most other music therapy literature, the references were not extensive. What we are missing in the literature is the application of theory and its translation into music in the therapy room. Perhaps future endeavours could go a step further and compile a handbook of playing techniques for each instrument which can be used in the therapy setting. Whilst this might sound prescriptive, this could be a useful starting point for music therapy students, and even other musicians who work in health and special education settings, who might like to widen their musical toolkit. After all, as instrumentalists turn to etudes and studies to hone their technique, we as music therapists could do with an equivalent "Etudes for Music Therapists" to hone musical therapy techniques specific to our instruments. As more music therapists reflect on the use of their first-study instruments in the therapy room, I wonder if there might be further instalments of this book, with more contributors sharing about the use of their instrument in ways not already mentioned or covered in this book. I would also hope that future developments of this book could include a widened range of instruments – first-study percussionists, vocalists, instruments from other cultures, or possibly even electronic instruments like the Ableton LauchPad – but with the same criteria that contributors have used that specific instrument extensively in their clinical work. This time we will have the French horn!

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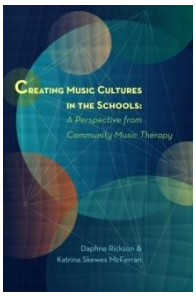
BOOK REVIEW

Creating music cultures in the schools: A perspective from community music therapy (Rickson & McFerran)



Reviewed by Jane Brackley
Cambridgeshire Music, UK

Title: Creating music cultures in the schools: A perspective from community music therapy **Authors:** Daphne Rickson & Katrina Skewes McFerran **Publication year:** 2014 **Publisher:** Barcelona Publishers **Pages:** 200 **ISBN:** 978-1937440619

REVIEWER BIOGRAPHY
Jane Brackley obtained a Masters in Music Therapy from Anglia Ruskin University, Cambridge. She has since worked as a music therapist with adults with learning disabilities within the NHS and with children and young people in special and mainstream education. She has set up music therapy on Behaviour Support Programmes for children and young people with social, emotional and behavioural difficulties who are at risk of mainstream school exclusion or attending Pupil Referral Units and has a specialist interest in this area of work. [jabrackley@aol.com]

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In line with its title, *Creating Music Cultures in the Schools* outlines a vision of musical school communities achieved via music programmes focusing on connectedness, wellbeing and development of the whole learner. The book will be of considerable value and interest to music therapists, music specialists, school staff (including principals, teaching, administration and support staff), trustees, other school-based professionals and parents. It is in essence a 'call to action' for readers to mobilise potential collaborative key players to take part in music programmes within schools. Rooted in the fundamental principles of equal rights and inclusion, the authors hold that participation in music affords opportunities that are not easily achieved by other means; therefore, if all pupils have a right to participate in the school community, there is a need for music to help build such inclusive communities.

In chapter one, the authors' wealth of knowledge and experience is clearly evident as they present the philosophies and values that underpin their vision to create music cultures in schools. Themes explored include musicality and musical participation, in which regard the authors advocate passionately for a wider understanding of the possibilities and benefits of musical participation. Highlighting the restrictive and exclusive nature of Western society's tendency to celebrate music-making based on skill, expertise and standards of performance, the authors effectively present the case for more collaborative and inclusive forms of musicking. In line with principles of community music therapy, the authors promote the idea and potential gains of connectedness via musicking relationships between not only learners, but all key players in music programmes, including music professionals, school staff, families and members of the wider community.

Chapter two considers necessary factors for the furtherance of musical cultures in schools, exploring political issues and presenting a rationale for the appropriation of international and local policies to lobby for music programmes that integrate wellbeing and connectedness. The authors provide an in-depth and highly relevant sense of context, considering musical participation in relation to health and disability, human rights and social justice. Relevant theories of education and learning as well as developments in music therapy are concisely presented and their impact on contemporary schools examined. The authors' working knowledge and understanding of educational settings is apparent as they refer to the need to respond to current contextual issues, such as the move towards inclusion and aspects of power-distribution in schools. The thought-provoking call is for a questioning of identity amongst professionals, including therapists, and for critical reflection to minimise risks of inflicting or reinforcing injustices and hierarchies that may mirror other players' experiences in wider society. A change of role for therapists is thus advocated, with the need to function as a resource within the school environment – i.e. adopting an inclusive, more egalitarian, collaborative and community-oriented approach derived from a social justice and human rights perspective as opposed to an arguably more traditional, specialist problem-solver therapeutic approach.

In chapter three, the authors present well defined and articulated core values of "mutuality, respect, empowerment and commitment" (p.37) underpinning music programmes, drawing on theories from community music therapy to examine how these might be applied in practice. A 'Model of Action and Reflection' (p.43) locating these values within new music programmes is outlined according to five cycles or action points: 1. Getting a Feel for the System; 2. Providing Examples and Experimenting with What we can Do; 3. Implementing Potential Programmes; 4. Embedding Music in the School Community; 5. Considering Sustainability. This model provides an invaluable practical guide and framework for readers who might otherwise feel overwhelmed by the ideals of the authors as presented in the first three chapters. It is, indeed, reflective of the authors' awareness of their reader that they acknowledge the potential for such a feeling of overwhelm at this stage within the book. The authors ensure the reader's ongoing engagement and sense of their ideals as realistic and attainable through the well-timed introduction of seven chapters of vignettes, which serve to demonstrate the enactment of the authors' values and principles in small and larger ways within music programmes in different settings.

Chapters four to ten are subsequently introduced as vignettes written by the authors from differing perspectives including principal, classroom teacher, music teacher, instrumental teacher, teacher's aide and administrator. The authors acknowledge clearly at this point that the vignettes do not represent actual people and events, but serve rather as hypothetical accounts based on the authors' experiences of developing music cultures in schools and presented from differing perspectives.

This manner of presenting the vignettes certainly provides a reinforcing and consolidating structural formula to the chapters, each of which refers to the five cycles of the 'Model of Action and Reflection' as relevant to its music programme and setting. As intended, the vignettes provide extremely helpful and informative examples of what it might look like to set up, implement and evaluate music programmes in diverse settings. Personally, I would have welcomed the opportunity to read the experiences of different and varied players (with no vested interest in process or outcomes) *in their own words* as to my mind this would add authenticity, objectivity and 'weight' to respective accounts;

in addition, different uses of language and styles of writing in successive vignette chapters would, in my view, add colour and richness to the discourse, at the same time allowing diverse players a voice in line with values expounded within the book – i.e. of empowerment, inclusion and collaboration.

Nevertheless, the authors' writing is informative, clear and engaging, and a balanced account is provided in each of the vignette chapters, detailing real challenges, areas of conflict and difficulty as well as positive experiences and outcomes. Real issues in schools are highlighted and include: limited resources including time, funding and equipment; the critical need for support from school leadership in assigning resources; parental expectations; political agendas / educational philosophies and the practical implications and impact of these – e.g. inclusion; the need for ongoing open communication in the face of different and sometimes conflicting educational / therapeutic approaches to music-making; and sustainability of music programmes. Noted benefits for players include: engagement and involvement in music programmes; collaborative decision-making leading to an increased sense of responsibility and commitment; enhanced self-esteem; raised confidence; improved communication; meaningful self-expression; social inclusion; integrated learning and educational gains; new perspectives, behaviours and attitudes; and a different experience of self and identity as expressed in diverse players' statements to the effect that 'I surprised myself'.

Finally, the authors present in chapter eleven emerging ideas and principles on evaluating musical engagement within programmes. An extremely useful evaluation tool and helpful evaluation examples are provided, scoring the values of mutuality, respect, empowerment and commitment (rather than musical achievement or psychological improvement). A description and evidence is also added under each heading. The authors clearly articulate their decision to target structures rather than individuals in evaluating programmes and to use reflection rather than measurement, valuing the affective dimension and taking into account information gathered via listening and watching. The importance of compiling an informative final report (in line with a sample report provided) of practical use to school leadership is finally emphasised, to include funding and resourcing requirements as well as recommendations for sustainability of music programmes.

In closing, on a personal note I found the authors' passion and commitment to their values and ideals, as upheld in their vision of musical school communities, compelling and inspiring. The wealth of relevant theory, knowledge and understanding presented is informative and thought-provoking and, as intended, successfully leads to questioning and reflection as a practitioner. As mentioned earlier, in the former part of the book the authors' ideals can sometimes feel overwhelming and ambitious to the extent that doubts arise as to how far they are attainable without major institutional reform at a high level. However, given practical examples of how music programmes might look, together with the invaluable offer of a structural framework for their implementation and evaluation, it becomes possible to see how the authors' ideals might translate into practice and to visualise real and exciting possibilities for trialling new and relevant music programmes within local school communities. In managing to thus successfully demonstrate the application of theory in practice, moreover in specific rather than abstract terms through reference to well-defined, shared tools and resources, I believe that this book has achieved its aim. It will appeal to a broad spectrum of readers with an interest in school-based work, contributing effectively and necessarily to new ways of thinking and approaching musicking in schools.

To conclude with the words of the authors, 'Creating Music Cultures in the Schools' successfully provides:

> [...] a rationale and a strategy for music professionals and others to expand their practices in schools. As well as helping learners to perform better, professional musicians are tasked with creating conditions where diverse peoples are empowered to engage in meaningful experiences of musicking together. (p.161)

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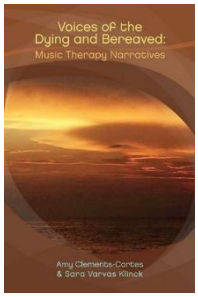
BOOK REVIEW

Voices of the dying and bereaved: Music therapy narratives (Clements-Cortés & Klinck)



Reviewed by Robert E. Krout

Southern Methodist University, USA

Title: Voices of the dying and bereaved: Music therapy narratives **Authors:** Amy Clements-Cortés & Sara Varvas Klinck **Publication year:** 2016
Publisher: Barcelona Publishers **Pages:** 204 **ISBN:** 9781937440923

REVIEWER BIOGRAPHY

Dr Robert E. Krout, MT-BC is Professor Emeritus and former Chair of the Music Therapy Department at Southern Methodist University, where he taught for 13 years and received honours including Outstanding Teaching Professor, Distinguished University Professor, and University Scholar-Teacher of the Year. Robert moved to Texas from New Zealand, where he taught and helped establish a postgraduate university music therapy programme. He was previously Music Therapy Manager at Hospice of Palm Beach County (now TrustBridge Health) in Florida. There, he worked in end of life care and bereavement, and founded an American Music Therapy Association National Roster Internship programme. [rkrout@smu.edu]

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The varied uses of music therapy to creatively meet the needs of the dying, their loved ones, and their bereaved survivors have flourished in recent years and clinicians have available to them a growing body of resources to help inform and guide their practices. This book is a welcome addition to that literature and I believe it is unique in both the ways it is organised and the richness of clinical experiences portrayed. End of life and bereavement care are challenging for patient, family and clinician, and the authors richly portray these challenges and the meaningful successes facilitated by music therapy in an intimate and highly insightful manner. The reader benefits from the substantial clinical experiences of the authors and their journeys with both the dying and the bereaved as detailed in the six cases that are explored and detailed in the book.

While the first main section of the book immediately engages the reader, the foreword written by Joanne Loewy puts the entire work into perspective. I found it both illuminating and instructive in approaching the book and recommend it highly as a starting place. The detailed prelude to the book written by both authors is also very helpful, as it lays out how this unique book is organised. The book itself is organised in two main parts. Part 1: *Dying* was written by author Clements-Cortés and consists of five chapters. Part 2: *Bereavement* was written by author Klinck and also consists of five chapters. Case examples are detailed by both authors. Following Klinck's chapters are a postlude from the authors, references and three illustrative appendices detailing sheet music and improvisation examples relating to three of the authors' cases. An index follows these appendices.

Part 1: *Dying* consists of two groundwork chapters and three chapters illustrating methods of providing music therapy, for patients who are dying, via three detailed case examples. Chapter 1 is titled *Music Therapy in End of Life Care: A Review of the Literature*. Here, Clements-Cortés' presents a thematic review describing the varied uses of music therapy in end of life care. A very helpful table illustrates the review. Labelled *Selected References Supporting Emergent Themes in Palliative Care Music Therapy*, it is organised in sections. In each section symptoms are categorised and listed on the left side of the table, with relevant references listed on the right side by author and publication date. The first three sections of the table are labelled *Physical Themes*, including *Music Therapy as Effective Symptom Management, Music Therapy as Pain Management* and *Music Therapy to Promote Relaxation*. Following are four *Psychosocial Themes*, including *Strengthening Self-Identity, Emotional Expression and Grieving, Supporting Relationship* and *Music Therapy as Relationship Completion*. Finally, three *Spiritual and Whole-Person Care Themes* are displayed, including *Spiritual/Transpersonal or Growth Experience, Life Review and Legacy Creation* and *Music Therapy to Enhance Quality of Life*.

Chapter 2, *Implementing the Methods of Music Therapy with Palliative Care Clients*, presents a summary of music therapy techniques commonly provided with patients who are dying. The first category is *Receptive Techniques* and includes techniques and considerations for using *Music for Relaxation, Guided Imagery and Music (GIM) and Bonny Method of Guided Imagery and Music, Music for Reminiscence, Song Choice, Song (Lyric) Discussion* and *Somatic Listening*. The second category is *Improvisational Music Therapy*. Techniques described and varied considerations listed include *Empathic and Referential Improvisation* and *Active Improvisation*. The section labelled *Re-Creative Music Therapy* outlines facets and aspects for using various types of music, labelled Vocal and Instrumental. The *Compositional Music Therapy* category includes applications of *Song Composition and Song Stories, Musical Autobiographies, Music Collages* and *Music Life Review*.

Chapters 3, 4, and 5 illustrate interventions with patients who are dying, via detailed case descriptions. The *Improvisation and Songwriting at End of Life* chapter describes the author's work with Janet. A 53-year-old woman with breast cancer, improvisation proved to be effective at helping Janet process previous life experiences. Songwriting, meanwhile, enabled Janet to express her feelings via music and lyrics. Chapter 4, *Saying Good-bye with Song*, detailed music therapy with a 68-year-old male named Dean, who was dying of pancreatic cancer. The author described how music therapy was able to assist Dean in connecting to his wife, children and grandchildren. Improvisation, song choice and songwriting were the primary techniques used by the author. Part 1 of the book concludes with the case of Melanie, a 73-year-old woman who was dying of colon cancer. The author describes how music played a strong role in supporting this patient's grieving process, as well as helping her assess the relationships in her life.

Part 2 of the book focuses on bereavement. Author Klinck begins with a chapter titled *Music Therapy in Bereavement Care: A Review of the Literature*. Here, she describes a synthesis of the fields of bereavement services, group therapy work and music therapy. A number of definitions are offered, including grief, mourning and bereavement. She also provides an overview of prevalent grief theories, types of bereavement support groups, how the creative arts can interact with grief and uses of music therapy and grief. Finally, bereavement-specific music therapy interventions are highlighted. Chapters 7, 8, and 9 focus on case examples. The chapter *titled Personal Discovery Through Music Creation and Lyric Analysis in Bereavement Care* focuses on Nancy and her experiences from a music therapy and

bereavement group research study. This group took place following the death of her husband from cancer. The author describes how lyric analysis, songwriting and finally active music-making, all helped validate Nancy's grief experiences. In Chapter 8, Reveal*ing Honest Expressions of Grief in Clinical Improvisation*, Klinck describes the case of a woman named Evelyn. She also took part in a music therapy based bereavement group research study after the death of her husband from cancer. The author describes the uses of group improvisation, which validated Evelyn's expressions of emotions and provided her with opportunities for emotional release. Chapter 9, *Honouring Departed Loved Ones and Maintaining Connection Through Meaningful Musical Memories and Song Lyrics* describes Klinck's third case summary. She describes a woman named Ruth, and her experiences from a music therapy bereavement group research study in which she took part after the death of her husband due to Alzheimer's Disease. The group incorporated song discussion, music listening and lyric analysis. The author reported that these offered Ruth opportunities for her to express her inner processes, as well as to maintain an emotional connection with her husband. Chapter 10 is quite unique, not only in relation to the rest of this book, but to the grief literature at large. Titled *Music Therapy Bereavement Group Model*, in it Klinck presents a framework of theoretical foundations, as well as goals and rationales for the group work. She also describes philosophical considerations, as well as practical recommendations, specific group elements, varied music therapy strategies and outlines of weekly sessions. She also presents a summary of the research study which acted as the context for the case summaries found in chapters 6 to 8.

In summary, this book rings true to its title *Voices of the Dying and Bereaved: Music Therapy Narratives*. The voices of those who are dying and also those who survive them are shared creatively and with meaning as their music therapy stories are told. The voices of the authors and their own life and grief journeys are also heard through reflective and open observations of how they have been affected and influenced through this important work. I find this book to be a unique and thoughtful contribution to the literature pertaining to the varied uses of music and music therapy in both end of life and bereavement care. It is based on research, presents clear relationships to foundational theories and shares patient and client stories that I believe will enrich the work of music therapists working in these areas. The book is thoughtful and reflective and it shares the combined wisdom and experiences of both authors. I recommend this book highly and thank the authors for their valuable contribution to the literature.

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CONFERENCE REPORT

2018 AMTA Conference 'Music therapy for a growing world'

Noriko Nakamura
University of Kansas, USA

CONFERENCE DETAILS

2018 American Music Therapy Association (AMTA) National Conference
Music therapy for a growing world
15-18 November 2018, Dallas, Texas, USA

AUTHOR BIOGRAPHY

Noriko Nakamura is a music therapy doctoral student at the University of Kansas. She also owns a private practice and provides music therapy services to diverse clients including hospice patients and brain injury survivors. [noriko41@ku.edu]

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The 2018 American Music Therapy Association (AMTA) national conference titled *Music Therapy for a Growing World* was held in Dallas, Texas from November 15th - 18th. The weather was beautiful, and the warm hospitality of the local planning committee was stellar for the attendees from many different regions. I was absolutely thrilled to be a part of this conference, and the place was filled with anticipation for the fantastic educational opportunities.

The conference presentations included diverse topics, and I decided to attend presentations regarding research, neuroscience, and diversity. These topics appealed to me because I am a music therapy PhD student who is interested in neuroscience and is curious about diversity in the field of music therapy.

RESEARCH-RELATED PRESENTATIONS

I first attended the session 'Collaboration in Clinical Research' by the AMTA research committee (Ellary Draper and Laura Brown). This topic was highly relevant to me since I hope to conduct music therapy research in collaboration with community organisations in the future. The presenters discussed the importance of finding research partners who share similar philosophies. For instance, researchers can invite former classmates or colleagues who already have similar values to join their collaborative projects. Presenting at National Association for Music Education conferences may lead music therapy researchers to find music teachers who possess similar philosophies. Furthermore, the presenters shared other tips for carrying out collaborative research, such as involving students for educational purposes, cooperating with clinicians, and having regular online meetings for effective communication.

In addition to the presentation about conducting collaborative music therapy research, the session 'How Do I Get my Research Published? An Introduction to Peer Review' by Shannon de l'Etoile was also educational. This presentation provided me with detailed information about publishing research. De l'Etoile explained how to prepare manuscripts and discussed aspects of the peer review process, including reviewer responses, reviewer decisions, and possible timelines. It was also helpful to learn about considerations for submitting and editing manuscripts. Both of the above presentations were greatly informative and should assist me in conducting and publishing research in the future.

NEUROSCIENCE-RELATED PRESENTATIONS

I have a strong interest in neuroscience, and several presentations caught my attention. One of them was the session 'Neurobiological and Neurochemical Processing of Music Stimuli: A Guide for Clinical Application' by Anastasia Canfield. She described various brain regions, neurochemicals, their functions, and related disorders including aphasia and schizophrenia. Moreover, Canfield explained how music influences the brain, and her presentation reinforced my knowledge about the brain and music. This presentation had a large audience, which indicates an increased interest in neuroscience in relation to the effects of music. Comprehending how music and musical elements influence the brain should assist music therapists in developing science-based rationale for their interventions and research protocols.

Conducting neuroscience research would require knowledge about related equipment, and the session 'Emerging Techniques in Music and Neuroscience Research: fNIRS' by Carly Flaagan was highly informative. She compared the advantages and disadvantages of various neuroscience techniques, and discussed fNIRS (functional near-infrared spectroscopy) in detail. fNIRS uses infrared light to measure blood oxygenation levels that indicate activity in brain regions (Ferrari & Quaresima, 2012). Flaagan explained this technique while including her own experience with its utilization. A participant wears a cap, with emitters and detectors attached. fNIRS allows head movement during data collection and can therefore record spatial and temporal data while one is participating in the interaction (Sun et al., 2018). Although fNIRS has pros (e.g., portability, cost effectiveness, and non-invasiveness) and cons (e.g., limited spatial coverage and resolution, and inability to measure deep brain regions) (Sun et al., 2018), Flaagan stated that fNIRS is highly pertinent to music therapy research. Her presentation provided valuable information, and I have become strongly interested in further exploring neuroscience techniques that are applicable to music therapy.

DIVERSITY-RELATED PRESENTATION

When I viewed the conference schedule, I immediately noticed culture and diversity-related presentations on the list. These topics appear to be gaining more attention in recent years, which is positive for the field of music therapy. Both clinicians and educators will encounter individuals from different cultures, and it is imperative for all to be willing to learn about various cultures. The session 'From Reentry to Rediscovery: Embracing Cultural Reflexivity in Music Therapy Education' by Yu-Ling Chen, Eugenia Hernandez-Ruiz, Ming Yuan Low, and Alison Cole, was eye-opening and thought-provoking. The presenters emphasised the need to be aware of our own cultures first in order to be

reflexive of other cultures. In addition to this self-awareness, it is essential not to judge other cultures based on our beliefs and customs (Aronowitz, Deener, Keene, Schnittker & Tach, 2015). Rather, we should make efforts to understand other individuals' cultures as situated in their own social contexts (Aronowitz et al., 2015). The presenters also discussed the importance of not stereotyping those from other cultures. Becoming culturally sensitive requires time and effort; thus, continuing the dialogue about cultures and diversity is imperative for music therapy professionals and students. I hope to see diversity-related presentations at future music therapy conferences to carry on this conversation.

RESEARCH POSTER SESSION

The research poster session was held on Saturday, and offered an opportunity to learn about various research studies. Although all research posters looked informative, I mainly focused on rehabilitation-related research posters due to my research interest. The presenters thoroughly answered my questions, such as "What were the reasons for choosing your intervention?" and "How did you measure the outcome?". For instance, the pilot research study 'Impact of Music Cueing on Sit to Stand in Persons with Parkinson's Disease' by Brogan Resch, Heather Watson, Brian L. Tracy, and Blythe LaGasse utilised a data collection app in an iPod to measure the outcome. This device was directly attached to the band placed around participants' hips, and the app recorded the data during sit-to-stand movements. The researchers reported that music cueing may enhance sit-to-stand movement fluidity, although more research is needed. Overall, it was inspiring to speak with various researchers regarding their study protocols and results. The field of music therapy will definitely benefit from a greater number of research studies, and this research poster session was a vital part of this conference.

KEYNOTE ADDRESS: LIFE CHANGES

Deforia Lane and Andrea Farbman delivered inspiring keynote speeches, and I was moved by their life stories. Both speakers have experienced ups and downs in their lives. Lane is a breast cancer survivor, and this experience guided her to the path of medical music therapy. She first provided music as a volunteer at a hospital and was later offered a paid position. Farbman has served in the AMTA for many years, including as president. She has accomplished much, and positively impacted the music therapy community. Both Lane and Farbman have greatly contributed to the field of music therapy through various mediums (e.g., advocacy and leadership) and paved the way for future music therapists.

FINAL THOUGHTS

The 2018 AMTA national conference provided the attendees with terrific educational opportunities on diverse topics. This acquired knowledge should enhance the attendees' skills and abilities as clinicians, educators, and researchers. Lastly, I would like to thank all who were involved in delivering this successful conference. Their dedication and hard work permitted the attendees' professional growth, which will eventually benefit future music therapy clients.

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CONFERENCE REPORT

The 20th Nordic Art Therapies Conference 'Diversity within the creative arts therapies'

Jóna Þórsdóttir
Tónstofa Valgerðar, Iceland

CONFERENCE DETAILS

The 20th Nordic Art Therapies Conference
'Diversity within the creative arts therapies'
11-14 October 2018, Hveragerði, Iceland

AUTHOR BIOGRAPHY

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BACKGROUND

In 1975, Sigríður Björnsdóttir held the first conference about art therapy in Reykjavik, Iceland, where she invited doctors and scholars from various Scandinavian countries to come and talk about art therapy with children. Sigríður Björnsdóttir worked as an art therapist on the children's ward at the National Hospital (Landspítalinn) in Reykjavík. Since then the Nordic Art Therapy Conference has grown and is now held every two years, with the next conference to be held in Sweden in 2020.

In 2016, the Association of Art Therapists in Iceland (FLÍS) contacted the Association of Music Therapists in Iceland (FÍSMÚS) as well as the only drama therapist practising in the country at the time. They requested that we (music and drama therapists) join them in organising the 20th Nordic Art Therapy Conference to be held in Iceland in 2018 (www.ncatc2018.is). The focus for the conference thus changed from being specific to art therapy to include all the creative arts therapies and, accordingly, the theme of the conference then focused on diversity.

NUMBERS

We were joined by 102 participants from 20 countries all over the world, so the conference turned out to be truly international. We had a total of 21 workshops, of which four were on music therapy, and 19 paper presentations; two were on music therapy practice, four were on research into music therapy/creative arts therapies and one was on music therapy supervision. There were three keynote speakers, of which two were Icelandic, Dr Unnur Ottósdóttir in art therapy and Dr Valgerður Jónsdóttir in music therapy. The keynote drama therapist, Dr Nishja Sajnami, came from the United States.

The conference committee had been keen on making this a practice-oriented conference from the beginning, with an emphasis on workshops, whereas the papers described both practical work and research. We also aimed to have a diverse programme balanced between the different creative forms of therapy. Unfortunately there were not as many music therapists that sent in workshop or paper proposals as art therapists, and there were therefore fewer music and drama therapists presenting than art therapists and, unfortunately, not all forms of creative art therapies were represented.

An evaluation form was sent out to the participants. Given that the organising team worked on a voluntary basis without any connection to the Icelandic academic system, or for that matter any previous experience of organising a conference, we were very grateful for the overall positive and constructive comments.

MUSIC THERAPY AT THE CONFERENCE

The music therapy keynote speaker was Dr Valgerður Jónsdóttir. Her keynote speech *Community Centred Music Caring* was based on over 30 years of theoretical reflections and practical experience as a music therapist and as a special music teacher with people of different ages and with various conditions. Her aim was to approach an answer to the question which we all must ask ourselves: *"What defines me as a therapist?"*

The four music therapy workshops were indeed very varied and diverse. We started with a workshop where four Icelandic music therapists (half of all music therapists in Iceland) gave insight into their work. We all work mainly with children and adolescents: Inga B Ingadóttir and Soffia Fr Rafnsdóttir Hede within the mainstream school system, Minerva M Haraldsdóttir with adolescents with emotional problems, and I work in the field of special needs education.

Dutch music therapists Carola Werger and Marijke Groothuis held a workshop on *How to Mix and Match Music Technology into Your Clinical Work*. They demonstrated the use of music technology in music therapy, and we tried out their equipment as well as discussing its possible applications in music therapy.

Monica Wagner, also from the Netherlands, had a workshop on *Musical Sculptures Creating New Perspectives*. She demonstrated two ways of working: the thematic sculpture and the family sculpture. In family sculpture the client uses different instruments to represent family members while the group plays the instruments. Thus the family relations are explored. In thematic sculpture the client brings a theme/problem where different instruments represents diverse aspects of the theme. The group plays the instruments for exploration.

Agnieszka Luciuk-Wojzuk from Poland led a workshop entitled *A Journey Deep Into the Self*, based on music therapy with oncology patients. The workshop included awareness exercises and movements in pairs to music.

The paper presentations also covered a wide range of topics. From the UK, we had Joy Gravestock presenting work with a disabled child, and Galia Bitton, from Israel, described her work with adolescent girls in a special education class. Furthermore, Malle Luik, from Estonia, presented her paper on Group Supervision for Music Therapy Students in Tallinn. From the Netherlands, we had various papers on research conducted by the Research Institute for Creative Arts Therapies (RIArT). They described a variety of ongoing studies, such as the effects of music therapy on neuropsychiatric

symptoms in dementia, by Anna-Eva Prick, the effects of music interventions on stress-related outcomes, by Martina de Witte, and finally Susan van Hooren's paper on diversity in research: subjective experiences, bodily states, and working methods.

LOOKING AHEAD

For us in Iceland, both the conference committee and the professional associations, this conference was a boost of inspiration and energy. It was a real thrill to have so many visitors from all over the world and to get in touch with new colleagues within our often isolated field of work. The next Nordic Art Conference will be held in Sweden, 11-14 June 2020. The theme of the conference will be 'Compassion and Inclusion in Art Therapy' (http://compassionandinclusioninarttherapy.eu/). As far as I am aware of it will focus on Art Therapy, but welcome other forms of creative therapies.