



SEMPRE Conference on Music and Health 2015

Glasgow Caledonian University

October 21st – 22nd



University for the Common Good

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Society for Education, Music
and Psychology Research



The SEMPRES Conference on Music and Health, October 2015

Glasgow Caledonian University

*Venue: Technology and Innovation Centre, 99 George Street,
Glasgow, G1 1RD.*

Conference Chair and organiser: Dr Don Knox, Glasgow Caledonian
University.

Conference committee: Dr Don Knox, Dr Gianna Cassidy, Prof Frederike
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Conference Programme

SEMPRE Study Day, 21st Oct

9:30-10:00 Level 3 foyer	Registration and poster set-up	
10:00-11:00 Conference room 4/5	Paper session 1	<p>A study of cognitive, behavioural and affective transfer effects associated with children learning musical instruments for the first year over one academic year. Dawn Rose, Goldsmiths, University of London</p> <p>All Music; Music for All Diljeet Bhachu, University of Edinburgh</p> <p>Utilizing free improvisation as a vehicle for developing preschool children's creativity, agency and socio-musical communication. Una MacGlone, University of Edinburgh</p>
11:00-11:45 Level 3 foyer	Coffee and posters	<i>See list of posters at end of programme</i>
11:45-12:45 Conference room 4/5	Paper session 2	<p>The development of a smartphone application to allow self-regulated practice evaluation for musicians: A case study Rachel Cooper, Lisa Aufegger, Aaron Williamon, Royal College of Music, London</p> <p>Networked Music Performance in music education: opportunities and challenges Miriam Iorwerth, Don Knox, Glasgow Caledonian University</p> <p>Gestural language as a system for the collaborative creation of music among intellectually disabled performers</p>

		Denise White, Ulster University
12:45-2:15 TIC Café Ground floor	Lunch	
2:15-3:15 Conference room 4/5	Paper session 3	Developing Entrepreneurship in Music Students: The Dilemma for Higher Education Sylvia Jen, University of Leeds Music Cognition and Working Memory: Exploring a possible tonal loop Catherine Jordan, University of Edinburgh Music Performance Anxiety – Where Next? Hugh T. Cowell, Alexandra Lamont, Keele University
3:15-4:00 Level 3 foyer	Coffee and posters	<i>See list of posters at end of programme</i>
4:00-4:40 Conference room 4/5	Paper session 4	An investigation of the global impact of music in dementia care: perspectives from the individual with dementia, carer and healthcare practitioner Anna Paisley, Glasgow Caledonian University The baseline profile of ADHD and its appearance in ordinary classroom situations and in specially designed music lessons. Eva Wilde, Graham Welch, University College London, Institute of Education
4:40	Conference round-up	

4:45	Ends	
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Posters

A Comparative Study of Subjective Well-Being Among Musicians and Non-Musicians

Christ Billy Aryanto, Universitas Indonesia, Depok, Indonesia

Minding the Body: An integrated theory of optimal posture in musicians

Ann Shoebridge Nora Shields, Kate Webster, La Trobe University, Melbourne, Australia

From East To West – An In-Depth Interview Study Of Cross Cultural Music Listening Experiences, Preference And Health Wellbeing

Mary Haiping Cui, Don Knox, Glasgow Caledonian University

'Not an ogre': adult music learners and their teachers, a corpus-based discourse analysis.

Rachael Shirley, Lancaster University

Teenagers' Musical Lives: The Role of the School Music Department

Kate Blackstone, University of Leeds

SEMPRE Conference on Music and Health, 22nd Oct

8:30-9:00 Level 1 foyer	Registration and poster set-up		
9:00-10:30 Level 1 Auditorium	Keynote & Paper session 1		<p>Keynote - Playlist for Life: Music, Wellbeing and Dementia Gianna Cassidy, Glasgow Caledonian University</p> <p>Keeping it live: exploring live music sessions in dementia care environments Jessica Crich, David Reid, Helena Muller, Gail Mountain, Victoria Williamson, University of Sheffield, University of London</p> <p>The effect of regular listening to preferred music on pain, depression and anxiety in older people living in residential care. Fiona Costa, University of Roehampton</p> <p>Those who sing together stay together: exploring lifelong musical engagement and its role in the health and wellbeing of couple relationships in retirement Jill Morgan, University of Edinburgh</p>
10:30-11:15 Level 1 Foyer	Coffee and posters		<i>See list of posters at end of programme</i>

<p>11:15-12:45</p> <p>Level 1 Auditorium</p>	<p>Paper session 2</p>	<p>Music Performance Anxiety, Self-Efficacy and Self-Esteem in American, Czech and Croatian University Music Students Ena Stevanovic, Charles University, Prague</p> <p>Fit to Teach: The Health of Instrumental and Vocal Teachers Naomi Norton, Jane Ginsborg, Alinka Greasley, Islay McEwan, Royal Northern College of Music, University of Leeds, Manchester Metropolitan University</p> <p>Health promotion among musicians: Literature review and future directions ('Better Practice') Raluca Matei, Jane Ginsborg, Stephen Broad and Juliet Goldbart, Royal Northern College of Music, Manchester</p> <p>Playing-Related Musculoskeletal Problems in Tertiary Music Students: Prevalence and Associated Risk Factors Ann Shoebridge Nora Shields, Kate Webster, La Trobe University, Melbourne, Australia</p>
<p>12:45-2:15</p> <p>TIC Café Ground floor</p>	<p>Lunch</p>	

2:15-3:15 Level 1 Auditorium	Paper session 3	<p>A clinical survey exploring the effects of hearing aid use on musical engagement and quality of life Alinka Greasley, H. Crook, & R.J. Fulford, University of Leeds</p> <p>Playing at Home: Researching the musical habitus of children Jude Robinson, University of Liverpool</p> <p>The Sound of a Good Night's Sleep. Tabitha Trahan, Victoria Williamson, Simon Durrant, Daniel Mullensiefen, Goldsmiths, University of London, University of Sheffield</p>
3:15-4:00 Level 1 Foyer	Coffee and posters	<i>See list of posters at end of programme</i>
4:00-4:45 Level 1 Auditorium	Paper session 4	<p>Group singing, health and wellbeing of street children: A non-clinical case study from Southeast Asia Angelina Gutiérrez and Juliana Moonette Manrique, Saint Scholastica's College & Philippine Opera Company, Manila, Philippines</p> <p>The benefit of choir singing for both patients with cancer and non-patients Rosemary Dow, Carly Reagon, Nichola Gale, Ian Lewis, Robert van Deursen, Tenovus Cancer Care/Cardiff University</p>
4:45	Conference round-up	
5:00	Ends	

6:30	Civic reception		
Glasgow City Chambers, George Square			

Posters

Mirroring, modelling and emotional contagion: the impact of non-verbal communication upon choral confidence.

Michael Bonshor, University of Sheffield

Music – a Swiss army knife for wellbeing

Andy Fletcher and Sue Carr, Northumbria University

A marriage made in heaven? The effects of a targeted mindfulness course on learning singing technique.

Anne-Marie L. Czajkowski and Alinka E. Greasley, University of Leeds

Codi'r To [*Raising the roof*]: A qualitative investigation into the impact of the 1st Welsh Sistema project

Gwawr Ifan, Bangor University

From Magic to Science: an overview of music therapy and depression through the ages

Michaela Korte, Victoria J. Williamson, University of Sheffield

Application Of Music In Allied Healthcare - A Cross Cultural Investigation

Mary Haiping Cui, Don Knox, Glasgow Caledonian University

A study of cognitive, behavioural and affective transfer effects associated with children learning musical instruments for the first year over one academic year.

Dawn Rose, Goldsmiths, University of London

Music Cognition and Working Memory: Exploring a possible tonal loop

Catherine Jordan, University of Edinburgh

Music Performance Anxiety – Where Next?

Hugh T. Cowell, Alexandria Lamont, Keel University

An investigation of the global impact of music in dementia care: perspectives from the individual with dementia, carer and healthcare practitioner

Anna Paisley, Glasgow Caledonian University

A Comparative Study of Subjective Well-Being Among Musicians and Non-Musicians

Christ Billy Aryanto, Universitas Indonesia, Depok, Indonesia

Minding the Body: An integrated theory of optimal posture in musicians

Ann Shoebridge Nora Shields, Kate Webster, La Trobe University, Melbourne, Australia

Abstracts

SEMPRE Study Day, Wednesday 21st October

Keynote

Playlist for Life: Music, Wellbeing and Dementia

Gianna Cassidy, Glasgow Caledonian University

A growing body of evidence highlights the opportunities and outcomes of music activity for wellbeing in dementia. However, there is a need to address the dearth of evidence-based music interventions from post-diagnosis to end of life, the role and function of musical-identity, the changing care context, and mode of delivery for individuals, their family and carers. Glasgow Caledonian University and Playlist for Life are collaborating to address these questions through creation of a:

- unique evidence-based personal music intervention;
 - accessible digital platform for delivery;
 - evaluation of impact upon social, emotional and cognitive wellbeing;
- Implementation of this work through a Citizen Science Platform.

As part of the Scottish Music and Health Network, this work and initial findings will be presented in relation to the networks' objectives:

- To create active research infrastructure for Scottish researchers in the areas of music and/or health, focusing on collaborations across disciplines and institutes;
- To set up pathways for translation of music and health research into practical applications;
- To set up knowledge transfer channels between researchers, practitioners, patients and the general public;
- To establish and publish best-practice guidelines for the development of evidence-based music interventions to benefit health.

Paper Session 1

A study of cognitive, behavioural and affective transfer effects associated with children learning musical instruments for the first year over one academic year

Dawn Rose, Goldsmiths, University of London

Learning a musical instrument has been considered a 'superskill' and associated with meta-plasticity in the brain (Hyde et al., 2009; Overy, 2003; Stewart, 2008). A goal-directed pleasurable reward system appears to support the acquisition of musical skills, as the emerging musician learns the autotelic value of playing (Elliott, 1993) and sociologically, we perceive learning an instrument as improving quality of life and mental well-being (Hallam, 2010). Interest in studies investigating the indirect effect of music education, or 'transfer effects' (Barnett & Ceci, 2002), has been re-energised by changes in policy requiring musical provision to be justified (Branscombe, 2012). Our mixed design investigation utilised measures of intelligence, memory, visuo/psycho/motor skill tests with participants (N=38) aged between 7-9 years. Well-being was assessed from the perspectives of parents and teachers over one academic year. Groups assigned based on the amount of musical training received. Results suggest an advantage for those receiving music lessons, over and above statutory provisions, particularly for nonverbal reasoning and hand/eye coordination, and a difference between groups for forwards and backwards digit span. The evidence further suggests time spent learning musical instruments impacts on particular aspects of wellbeing. Significantly, these findings were observed after only one year, approximately 14 hours training on average.

All Music; Music for All

Diljeet Bhachu, University of Edinburgh

This research project will focus on music in Scottish primary schools. There are two reasons for this: the importance of musical experiences in childhood, and inequitable and varied access to music provision in schools. Access to instrumental music services and classroom music specialists varies between schools, and a number of gatekeepers and barriers can prevent some learners from accessing musical learning opportunities.

The aim of this research is to explore the use of community music principles within the primary classroom as an inclusive, whole-class approach to musical learning that both allows non-specialists to facilitate musical learning, and allows learners to explore music without judgement. This presentation will explore the positioning of the researcher as an activist for social inclusion through music, and the negotiation of this role whilst embarking on a participatory action research project with teachers and learners to develop a model for music in their classrooms. This qualitative project will explore teachers' own musical experiences and perceptions towards musicality, before an intervention introduces the learners and teachers to an explorative, creative, collaborative and inclusive model for musical learning. The fundamental principles of the model are that all participants in the activity are musical, and all musics are accepted.

Utilizing free improvisation as a vehicle for developing preschool children's creativity, agency and socio-musical communication

Una MacGlone, University of Edinburgh

Improvisation in music is found in a diverse range of genres (e.g. organ music; jazz; contemporary classical; Indian music etc) and creative contexts, yet offers a distinct function in each setting. Utilizing the creative possibilities of free improvisation in a music educational context has been investigated, but arguably not fully realized. The researcher proposes a new method of delivering music education to preschool children based on authentic improvisational processes used by professional improvising musicians. These processes have been further developed through eight years of delivering early years music workshops and form the basis for a six-week, twice weekly intervention.

The researcher will implement the intervention, and then examine it using qualitative methods through two cycles of action research. Video data from the intervention will be sampled and then analyzed using multimodal interaction analysis. This is to gain a rich, nuanced picture of the socio-musical interactions and expressions of creativity that may occur during the children's free improvisations. The children's parents and teachers will be interviewed and these will be analyzed using Thematic Analysis. Additionally, expert views of the children's creativity and socio-musical communications will be sought.

By studying the intervention through the different lenses, the researcher aims to gain insight into effective ways of using improvisation and the ways in which preschool children can benefit from such an approach.

Paper Session 2

The development of a smartphone application to allow self-regulated practice evaluation for musicians: A case study

Rachel Cooper, Lisa Aufegger, & Aaron Williamon, Royal College of Music, London, UK

Musical excellence consists of deliberate, effortful and well-executed practice on a regular basis. To achieve such expertise, students are supposed to successfully implement self-sufficient practice strategies without the constant assistance of their teachers and peers. With this in mind, it is hardly surprising that practice often becomes overwhelming, causing musicians to exceed their physical limits in order to achieve their desired goals. This not only impacts on the effectiveness of the practice session but also puts the musician at risk of serious injury and fatigue. The aim of this study was to develop a user-friendly smartphone application that enables to plan, document and musicians' individual practice habits as to avoid the pitfall behaviours associated with practice such as over-practising. The app works in several modes where musician can record their practice, view previous practice sessions, evaluate their practice progress by means of visual feedback, and enter musical performance events in a calendar that provides the opportunity to pace musicians' practice in relation to upcoming dates, such as auditions or concerts. Musicians are able to share this information on social networks, such as Facebook and twitter. The significance and development of the application will be discussed by means of a case study.

Networked Music Performance in music education: opportunities and challenges

Miriam Iorwerth, Don Knox, University of the Highlands and Islands, Glasgow Caledonian University

Networked Music Performance (NMP) exists in various forms, including synchronous (live) rehearsal and performance, musical file sharing, and online environments for composition. NMP is of increasing importance to music education. It facilitates collaboration across distances and working with learners from other cultures; provides experience with emerging technology and shaping practice in the area of music performance and production; and allows students to gain confidence and develop flexible approaches to working in areas that are challenging to them. It is of particular importance in distance education - creating opportunities for

collaboration and engagement with performers that would otherwise be unavailable. Current research has examined quantitative issues surrounding NMP, especially the role of latency and how it affects musicians' timing. Qualitative issues surrounding the musicians' subjective experience require further research, including how latency affects the musicians' experience of NMP, how communication is affected by physical separation, as well as how musicians adapt to other technical challenges facing them in a networked situation. This paper aims to address some of the challenges facing musicians using synchronous NMP within distance music education situations, and will discuss the outcomes of several empirical studies examining student musicians' experience of NMP.

Gestural language as a system for the collaborative creation of music among intellectually disabled performers

Denise White, Ulster University

This paper describes a novel system of creating and using a series of gestures to be used during guided improvisation performances with intellectually disabled musicians. Musical experience cannot be separated from movement, thus, studying gestural language should be a high priority task in music research. Studying and creating gestures used in music performances is not something new as indicated by Jazz composer Lawrence Butch Morris and Soundpainter Walter Thompson, however, it is now a favourable moment in time to investigate the impact of a created system of gestures for and by intellectually disabled musicians and performers. Musical gestures is an eminently interdisciplinary topic, drawing on theories, ideas, and methods from disciplines such as musicology, computer science, education and psychology therefore the research will be appealing and relevant to a broad audience. The current research will investigate the following areas: Can a range of gestures be developed which prompt creative improvised responses among intellectually disabled students? What scope can be provided with each gesture? What range of improvisational responses will be acceptable as coherent? This novel strategy and the music it produces raises an array of theoretical questions investigating current teaching approaches within the intellectually disabled sector, new ways of making and thinking about music by disabled students and the impact of developing creativity in education settings.

Paper Session 3

Developing Entrepreneurship in Music Students: The Dilemma for Higher Education

Sylvia Jen, University of Leeds

Higher Education (HE) music institutions have been faced with a long-standing dilemma that music students are often unable to build and sustain a career in music after they graduate (Bennett, 2007). Training entrepreneurship is seen as one way in which institutions can equip their students with the necessary skills and knowledge to prepare them for the often self-employed realities of the music career (Carey & Naudin, 2006). However, a considerable amount of confusion, divergence, and controversy has been detected among different institutions as to what, why, and how entrepreneurship-related subjects should be incorporated into HE music curricula (Beckman, 2007). My research attempts to address the questions of why such problems exist and ultimately how they may be resolved. This paper will focus on evidence gleaned from existing literature, drawing from the fields of entrepreneurship education, cultural/creative industries, cultural labour, cultural value, and arts/cultural entrepreneurship for support. The supporting evidence will illustrate the possible causes and likely solutions of the aforementioned problems. However, it also points to a need for new research to be conducted to further aid in developing a more united, meaningful and applicable purpose for entrepreneurship to become an integral and fundamental part of music education.

References:

- Beckman, G. D. (2007). "Adventuring" Arts Entrepreneurship Curricula in Higher Education: An Examination of Present Efforts, Obstacles, and Best Practices. *The Journal of Arts Management, Law, and Society*, 37(2), 87–112.
- Bennett, D. (2007). Utopia for music performance graduates. Is it achievable, and how should it be defined? *British Journal of Music Education*, 24(02), 179.
- Carey, C., & Naudin, A. (2006). Enterprise curriculum for creative industries students: An exploration of current attitudes and issues. *Education + Training*, 48(7), 518–531.

Music Cognition and Working Memory: Exploring a possible tonal loop

Catherine Jordan, Univ. Edinburgh

Exploring short-term memory through the multicomponent model of working memory (Baddeley & Logie, 1999; Baddeley & Hitch, 1974) presents the opportunity

to discover the influence of music expertise on processing and maintenance of information within such a system. Articulatory suppression interfered with the storage of verbal rather than tonal material (Koelsch et al, 2009), suggesting the existence of a 'tonal loop' within a musician's working memory (Schulze et al. 2010). The present study incorporated the visual to auditory recognition experimental design (Schendel & Palmer, 2007), with some alterations. Two experiments consisted of an auditory-auditory pitch recognition task and the visual-auditory pitch recognition task. Participants created the disruption verbally through articulatory suppression and singing suppression. Singing suppression impaired musician's performance. These preliminary results suggest a difference between musicians and non-musicians working memory, suggesting the existence of a tonal loop within a musician's working memory. Articulatory suppression caused most disruption to non-musicians suggesting non-musicians may use the phonological loop to process tonal and speech information.

Music Performance Anxiety – Where Next?

Hugh T. Cowell, Alexandria Lamont, Keele University

Objectives: Music Performance Anxiety (MPA) has blighted the careers of some professional musicians. Since 2000 around 150 studies have examined MPA or trialled interventions. Most studies have been quantitative, some experiencing difficulties in separating the variables. The paucity of idiographic research in the aetiology of MPA, is being addressed in a qualitative study to determine the typology and epidemiology of MPA.

Methods: Interpretative Phenomenological Analysis (IPA, Smith, 1995) is employed with a target of circa 30 participants, initially amateur musicians.

Results: Interviews to date have uncovered a number of themes including:

- Boost: "When it works it's amazing";
- Wanting to please: "the moment you are performing you are doing it for other people";
- Attenuated recall: "Details blur together into one ... it turns into a roller coaster";
- Coping by closing off: "I am so in my bubble".

Discussion: It is too early in this continuing study to discuss conclusions. This study is continuing with music students and professional musicians. Further studies will examine temporal aspects and learning / practice methodologies.

Paper Session 4

An investigation of the global impact of music in dementia care: perspectives from the individual with dementia, carer and healthcare practitioner

Anna Paisley, Glasgow Caledonian University

Music presents a powerful emotional, social and cognitive stimulus for people with dementia (PWD) (Särkämö et al., 2012). Whilst verbal communication and associated thought processes deteriorate in dementia, the brain structures involved in the processing of musical information often remain intact, asserting the use of music as a unique tool in dementia care and treatment (Cuddy & Duffin, 2005). However, a substantial review of the current literature exposed a number of methodological weaknesses across studies with regard to delivery, evaluation (Vink et al., 2011) and a concurrent lack of empiricism and contextualisation. Of the research conducted to-date, findings are largely been confined to outcomes and opportunities for PWD, with a tendency to overlook the facilitative role of the formal and informal carer in the delivery of music-based interventions and potential use of music to support and enhance routine dementia care and carer wellbeing. Thus, as part of a wider programme of work, the research presented here shall outline initial findings from a preliminary investigation which sought to elucidate the global impact of music for persons with dementia and their formal and informal carers, with reference to the pressing need to translate this knowledge to clinical practice (c.f. Scottish Government, 2013).

The baseline profile of ADHD and its appearance in ordinary classroom situations and in specially designed music lessons. A pilot study to explore the diverse spectrum of ADHD symptoms and their consequences using the example of an ADHD-diagnosed pupil and peers at a primary school in London.

Eva Wilde, Graham Welch, University College London, Institute of Education

There is a growing body of research to indicate the wider benefits of music on children's intellectual, social and emotional development. In particular, some findings demonstrate that pupils diagnosed with Attention Deficit Hyperactivity

Disorder (ADHD), whose symptoms can pose an enormous impediment both at home and in school, could gain from this. In this respect, the intention of this pilot study in the process of a doctoral research was, through classroom observation and practical music activities, to explore the baseline profile of ADHD and investigate a possible modification in or through music. Data were gathered from classroom observations and video recorded music lessons, using the example of an ADHD-diagnosed primary school pupil and his peers. Overall, symptoms of ADHD were present throughout, but did not hinder in his engagement in music and acquiring musical skills. Moreover, some behavioural characteristics were not seen as negatively as in other school subjects. Further, all participants occasionally showed ADHD symptoms and the causes of these behaviours were difficult to determine. Whereas some essential characteristics of ADHD could not be addressed, an overall ongoing positive wider impact of the musical intervention could be observed occasionally. In conclusion, these findings suggest different musical frameworks for further research.

Posters

A Comparative Study of Subjective Well-Being Among Musicians and Non-Musicians

Christ Billy Aryanto, Universitas Indonesia, Depok, Indonesia

The objective of this study is to know the subjective well-being comparison between musician and non-musician. Participants of this study is musician and non-musician which is divided based on the musical activity throughout their lifespan (Hanna-Pladdy & MacKay, 2011) aged 18 – 40 years with the amounts of 123 participants. Musician is a person who had played a musical instrument on a regular basis for at least 10 years and joined formal musical training with the amounts of 55 participants. Non-musician is a person who had never played music, cannot read music notes, and never received formal musical training with the amounts of 68 participants. Subjective well-being was measured using the Satisfaction with Life Scale (SWLS) developed by Diener, Emmons, Larsen, and Griffin (1985) to measure cognitive evaluation and Positive Affect Negative Affect Scale (PANAS) developed by Watson, Clark, and Tellegen (1988) to measure affective evaluation. The result showed that the musicians have a higher level of subjective well-being significantly than non-musicians.

Minding the Body: An integrated theory of optimal posture in musicians

Ann Shoebridge, Nora Shields, Kate Webster, La Trobe University, Melbourne, Australia

Posture is considered to be integral to musical tone and a factor contributing to playing-related musculoskeletal problems. However there is no definition of optimal playing posture that encompasses the nuanced responsiveness sought by musicians and the biomechanical principles that concern health professionals. The aim of this study was to construct an interdisciplinary theory of posture to serve music performance and musicians' health. Symbolic interaction methodology underpinned this qualitative study. Four heads of university instrumental departments, three university physiotherapy lecturers and three heads of Alexander Technique teacher training schools participated in response to purposive sampling. Data were collected using semi-structured interviews and were analysed using grounded theory and thematic analysis. The dominant process describing optimal posture for musicians was Minding the Body, signifying mind-body integration and taking care of the body. Subthemes were Finding balance, Resolving tension and Challenging habits, which explained balancing the body internally and with the instrument, reducing unnecessary tension and breaking the neurological retention of adverse habits. Expanding the framework and Barriers to change suggested overcoming traditional educational and health perspectives to embrace relearning that supports expansive, dynamic coordination. This theoretical construct may help to inform and integrate pedagogical and health care approaches to posture in musicians.

From East To West – An In-Depth Interview Study Of Cross Cultural Music Listening Experiences, Preference And Health Wellbeing

Mary Haiping Cui, Don Knox, Glasgow Caledonian University

AIMS: Semi-structured interviews were carried out for better understanding of music listening experiences, preferences and its relationship to health and wellbeing across culturally from the listeners' perspective.

METHODS: Totally 24 participants, including 12 Scottish and 12 Chinese, were recruited (14 females and 10 males, with average age of 30.3). With consent, interviews with open-ended questions on music listening experiences cross culturally were conducted in participants' preferred environments and in participants-led manner. Responses were analysed for main themes and coded accordingly based on Numan (2000). **RESULTS:** Results confirm that the power of music goes beyond language and culture and participants were influenced by music physically, emotionally despite of the cultural and linguistic background. The

therapeutic value of music in health wellbeing promotion and application of music in education were suggested valuable in both cultures. Both similarities and differences attracted music listeners across culturally. Music from other culture was described to mind expanding. The novelty and richness of culture in music was found appreciated by most listeners. Overall, to listeners from both cultures, traditional Eastern music was described to have soothing effects, while more senses of freedom reflected in Western music. Interestingly, music in unknown language seemed to have more awaking and refreshing effects on listeners, which may due to novelty in melody, instrument and performers outlook. When listening to music in unknown language lyrics caused less distraction, listeners showed more attention to and enjoyments of the melody. Strong emotional effects still showed even when listening to music unknown language. CONCLUSIONS : Both similarities and differences of music listening experiences, preferences from East to West reflected upon the confound link between music, emotion and health wellbeing. Therapeutic effects of music were proven in both cultures and application of music across culturally might have special contribution in achieving better health and wellbeing and it is still a fertile field to research into.

'Not an ogre': adult music learners and their teachers, a corpus-based discourse analysis

Rachael Shirley, Lancaster University

Adult learners are an under-researched group in music education. Although music education research often uses texts (interviews, autobiographical accounts, survey responses), linguistic analysis has not yet been used in this area. Meanwhile, the internet has become a source of support and expression for adult music learners, through blogs and forums. This presentation describes part of the research undertaken for my MA in English Language, which uses a corpus of online texts to investigate discourses of adult music learners. Using corpus searches as a starting point, I combine several linguistic discourse analysis techniques to explore how adult learners describe their experiences of and relationships with music teachers. I find that adult music learners represent the student/ teacher relationship as crucial but complex, with discourses around teacher support and approval. The issue of control in student/ teacher relationships appears frequently, revealed by passivisation and metaphors of force, injury and war. These findings have the potential to inform music educators, influencing the way individual teachers work with adults, and the guidance given by organisations who offer music education training. The study demonstrates the potential of corpus-based discourse analysis (which is increasingly being used outside linguistics) in the realm of music education.

Teenagers' Musical Lives: The Role of the School Music Department

Kate Blackstone, University of Leeds

Secondary school music departments play host to a diverse range of activities. Previous research has investigated the differences between teenagers' musical worlds inside school and outside school (Lamont, Hargreaves, Marshall & Tarrant, 2003), attitudes to extra-curricular engagement in schools (Pitts, 2007) students' collaborations in music group learning (Burnard & Dragovic, 2014), and attitudes toward instrumental learning (Evans, McPherson & Davidson, 2013). Despite the amount of existing research that looks at parts of musical life and learning in a secondary school, there is still a need for further study of the music department as a whole. Research using 'pupil voice,' (PVR) is increasingly being used to gain students' own perspectives of their educational environment. The study used semi-structured interviews to explore 10 students' perceptions of the music department's role in their musical life, whose provision of opportunities and space for growth was found to support Basic Needs, as devised by Deci & Ryan (2002). Investigating students' attitudes to the alternative music curriculum offered in the participant school could have implications for future curriculum design, in addition to providing support for the benefits of a practical music education in a time of austerity and emphasis on academic success.

Burnard, P. & Dragovich, T. (2014) Collaborative creativity in instrumental group music learning as a site for enhancing pupil wellbeing. *Cambridge Journal of Education*, DOI: 10.1080/0305764X.2014.934204

Deci, E. L. & Ryan, R. M. (2002) An overview of self-determination theory: An organismic-dialectical perspective. In E. L. Ryan & R. M. Deci (Eds.), *Handbook of self-determination research* (pp. 3-36). Rochester, NY: University of Rochester Press.

Evans, P., McPherson, G. E., & Davidson, J. W. (2013) The role of psychological needs in ceasing music and music learning activities. *Psychology of Music*, 41(5), 600-619.

Lamont, A., Hargreaves, D. J., Marshall N. A. & Tarrant, M. (2003) Young people's music in and out of school. *British Journal of Music Education*, 20(3), 229-241.

Pitts, S. E. (2007) Anything goes: a case study of extra-curricular musical participation in an English secondary school. *Music Education Research*, 9(1), 145-165.

*SEMPRE Conference on Music and Health, Thursday
22nd October*

Paper Session 1

Keeping it live: exploring live music sessions in dementia care environments

Jessica Crich, David Reid, Helena Muller, Gail Mountain, Victoria Williamson, The University of Sheffield, Lost Chord - The Wesley Centre, University of London

Aims : Music can have many beneficial impacts for people living with dementia. Live music is considered an acute music modality, promoting strong levels of engagement and participation amongst this population and their carers. The salutary effects attributed to live music in general lead to a question that has the potential to inform awareness and application; what are the features of live music sessions currently offered for dementia care? The charity Lost Chord provides live music sessions in dementia care homes across the UK. The primary aim of this study was to understand how their dementia music sessions are planned and conducted. The secondary aim was to document perceptions, reactions and hopes relating to live music use in dementia care homes from the viewpoints of two key stakeholders; musicians and carers.

Methods: Two researchers observed the delivery of nine live music sessions carried out in dementia care homes in the South Yorkshire area. In each case video footage was taken and semi-structured interviews were conducted with musician volunteers and care home staff. Each researcher took ethnographic notes on their session observations.

Results: This study analysis is ongoing. We will provide summary statistics of the music programmes. Qualitative thematic analysis of the musician and carer interviews will also be presented, addressing their comparative views on the optimal features of live music sessions. The main outcome will be a knowledge repository to supplement future research into the effects of music provision for people with dementia and their support network.

Conclusions: This early work provides an essential understanding of features of live music sessions provided as part of dementia care and the comparative responses of performers and carers for people with dementia. These results will allow us to generate evidence-based guidelines for the training, development and delivery of music sessions in dementia care homes.

The effect of regular listening to preferred music on pain, depression and anxiety in older people living in residential care

Fiona Costa, University of Roehampton

Aims:

Pain, depression and anxiety are commonly experienced by older people and severely compromise quality of life. Previous research has indicated that music may be effective in relieving these conditions but little work has been carried out amongst the oldest old. Music is well suited to this population: it can be accessed irrespective of cognitive or physical capacity and can be enjoyed until the end of life; it is inexpensive and readily available. The aim of this research was to evaluate the effect of listening to a daily programme of preferred music on older people living in care homes.

Method:

One hundred and thirteen participants were randomly allocated to either an experimental or a control group. The former, in addition to their usual routine, listened to a daily 30-minute programme of preferred music over a three-week period. Weekly assessments of pain, depression and anxiety were made using validated measures adapted for the older population. On completion of the programme, the groups switched over, thus enabling all participants to receive the potential benefits of the intervention.

Results:

Results showed statistically significant decreases for each dependent variable with the size of the effect being greater for depression and anxiety than for pain. No significant decreases were found for those in the control group. Thematic analysis of qualitative data gave further insight into the various ranges of response to the music intervention and identified those most likely to benefit from regular listening: those who listen frequently, have had some previous engagement with music and who regard music as important.

Conclusion:

It was concluded that listening to preferred music is able to benefit many of the care home population, although not all will benefit to the same degree.

Those who sing together stay together: exploring lifelong musical engagement and its role in the health and wellbeing of couple relationships in retirement

Jill Morgan, University of Edinburgh

Aim

The aim of this study was to explore lifelong musical engagement and its role in the wellbeing of married couples in retirement. Evidence suggests that music has the ability to positively affect our feelings of health and wellbeing (MacDonald, Kreutz & Mitchell, 2012). With contemporary research indicating a link between marriage and lifespan longevity (Jaffe et al 2006) and our increasingly ageing population there is now a need to investigate the function of music within couple relationships in retirement.

Method

Five retired couples who were in good health and actively engaged in musical pursuits were interviewed individually utilising Interpretative Phenomenological Analysis. Seeking to offer new insights into the importance of music in this key area of health, identity and social relationships each participant offered meaningful perspectives on the phenomenon being investigated.

Results

Analysis of their narratives revealed three overarching themes: the centrality of music throughout the lifespan, music as a therapeutic tool, and music in the present and its role in future selves. Significant findings showed how the use of music within the dyadic relationship facilitates a joint identity through the lifespan which continues into old age, assists social reconstruction when agency is under threat, brings positivity and respect through matched musical preferences, enriches feelings of positivity for the future as musical engagement is still possible when mobility becomes an issue, enhances feelings of togetherness, and provides joy through the provision of a legacy to future generations.

Conclusion

Recommendations are made for future research into expanding awareness of specific areas of musical engagement which enhance a sense of wellbeing in older age couples, and increasing knowledge of its role in other age group intimate partnerships.

Paper Session 2

Music Performance Anxiety, Self-Efficacy and Self-Esteem in American, Czech and Croatian University Music Students

Ena Stevanovic, Charles University, Prague, Czech Republic

Music performance anxiety (MPA) is one of the most frequently reported problems among music students. It can potentially cause severe performance impairment and distress. Possible contributing characteristics are low musical self-efficacy, low self-esteem, inadequate preparation and previous performing experiences.

The aim of the research project is to investigate the relationship between MPA, self-esteem and self-efficacy; to examine possible differences in the levels of MPA, self-efficacy and self-esteem between music students studying in three different higher education institutions, and to determine whether such differences could be attributed to their different educational experiences.

Surveyed participants were 53 (quantitative study) and 10 (qualitative study) music students studying in the Manhattan School of Music in New York, the Music Academy in Prague and the Music Academy in Zagreb. Research data were collected using both quantitative (Rosenberg Self-Esteem Scale, Sherer Self-Efficacy Scale and Kenny Music Performance Anxiety Inventory) and qualitative methods (semi-structured interview).

Findings suggest that self-esteem and musical self-efficacy are significant predictors of MPA in all three groups and that there are significant differences between groups on the items from all three scales. American students had higher scores in self-efficacy items measuring effort, while the Czech and Croatian students reported significantly more fear of being evaluated negatively by others. Qualitative analysis indicated that a possible contributing factor is the educational context (i.e. the Czech and Croatian students reported more negative experiences in their education system in general and tended to blame their teachers for high level of MPA). Implications of these findings for teachers and students in instrumental education are also discussed

Fit to Teach: The Health of Instrumental and Vocal Teachers

Naomi Norton, Jane Ginsborg, Alinka Greasley, Islay McEwan, Royal Northern College of Music, University of Leeds, Manchester Metropolitan University

Background and aims:

Musicians participate in a range of activities, many of which confer benefits for individual and community well-being. To support these activities musicians must maintain their own health; however, research has shown that performance-related problems (PRPs) are common amongst student and professional performers. To date, no research has investigated the health of UK instrumental/vocal teachers. This study aimed to chart the self-reported prevalence of performance-related musculoskeletal disorders (PRMDs), music performance anxiety (MPA), and noise-induced hearing problems amongst a large sample of UK teachers and explore the advice/treatment that respondents received in relation to these conditions.

Methods

An online questionnaire with 50 questions was designed by the researcher and distributed to musicians who were teaching instrumental or vocal lessons in the UK from September 2013 – May 2014. The final sample included 496 musicians (149 male, 343 female) from various instrumental disciplines and genres, ranging in age from 18 to 90.

Results

The prevalence of PRPs amongst this sample was relatively high: 66% have experienced PRMD symptoms; 52% have experienced MPA symptoms; and approximately 25% have diagnosed or suspected noise-induced hearing problems. Just over 50% of respondents had received advice/treatment relating to PRMDs but only 22% had received advice/treatment for MPA and 13% for hearing problems. Respondents' received advice/treatment from a variety of sources and their perceptions' of the efficacy of that advice/treatment varied greatly.

Conclusions

The results of this study suggest that a large proportion of UK instrumental and vocal teachers may be experiencing PRPs that affect their ability to play and/or teach. More research is needed to corroborate the self-reported prevalence reported in this study. It is imperative that music teachers receive the advice that they need to maintain their own health so that they can continue to support others' musical engagement and encourage the next generation of musicians to look after their health.

Is health promotion among musicians in tune with the evidence? Literature review and future directions ('Better Practice')

Raluca Matei, Jane Ginsborg, Stephen Broad, Juliet Goldbart, Royal Northern College of Music, Manchester

Aims: The physical and psychological demands of the training and practice that musicians must achieve to perform to a high standard can produce deleterious effects on health and wellbeing, arising from musculoskeletal, neurological and audiological causes. Musical Impact, an AHRC-funded research project involving all nine UK conservatoires (2013-2017) seeks to enhance the health and wellbeing of musicians in Britain. Better Practice, one of three sub-projects, asks 1) What can be learned from existing approaches to promoting musicians' health? 2) How can such approaches be adapted, applied and evaluated across educational and professional contexts in the UK and internationally? The available evidence on promoting musicians' health has been reviewed.

Methods: Given the complexity and context specificity of the interventions and programmes, a realist synthesis approach was applied. Published, full-text, quantitative and qualitative studies in English were included. Databases were searched for interventions and health programmes targeting musculoskeletal and music performance anxiety issues among musicians. Quality and validity are being enhanced by continuous discussion among the reviewers.

Results: Few taught courses on health and wellbeing have been evaluated systematically. Zander et al. (2010), using pre-post, longitudinal testing of one programme in Germany, reported a stabilising effect on psychological health, but no effect on physical symptoms. Purpose-designed interventions based on endurance exercises reduced levels of perceived exertion, pain and fatigue (Kava et al., 2010). Current approaches vary widely and present substantial methodological flaws.

Conclusion: This project could inform new evidence-based pathways for promoting health, behaviour change and managing ill-health in musicians.

Playing-Related Musculoskeletal Problems in Tertiary Music Students: Prevalence and Associated Risk Factors

Ann Shoebridge, Nora Shields, Kate Webster, La Trobe University, Melbourne, Australia

The prevalence of playing-related musculoskeletal problems (PRMP) is high across all age groups of musicians, but there is a lack of evidence about what risk factors for developing PRMP are modifiable. Identifying risk factors in tertiary musicians on

the brink of their professional careers has the potential to inform strategies to prevent long-term problems.

Aims: To identify and validate risk factors associated with lifetime and one-month prevalence of PRMP in tertiary orchestral music students.

Methods: A volunteer sample of 221 orchestral music students (141 female, 80 male) from three music faculties completed an online survey. Logistic regression models were constructed to identify risk factors for PRMP, and the results were tested for validity.

Results: Lifetime prevalence of PRMP was 76% and one-month prevalence of PRMP was 48%. Risk factors positively associated with PRMP at any time included being female and reporting increased playing-related muscle tension. Regular exercise was inversely associated with PRMP at any time. Practice breaks shorter than 30 minutes, the physical stress from lifting and carrying instruments and volume of work, and the emotional stress from ensemble dynamics were associated with having a PRMP in the past month.

Conclusions: Several modifiable risk factors associated with PRMP were identified. Prospective studies are needed to confirm whether these risk factors may be causative.

Paper Session 3

A clinical survey exploring the effects of hearing aid use on musical engagement and quality of life

Alinka Greasley, H. Crook, & R.J. Fulford

Aims

Music is an important part of people's lives and can have powerful physical, social, and emotional effects on individuals. This can also be true for people with hearing impairments, including those with profound deafness. Yet digital hearing aids, which are optimised to amplify speech sounds, can present issues for the perception of music (Madsen & Moore, 2014). A newly-funded three-year project aims to explore how hearing aids affect music listening experiences and behaviours. This paper presents findings from a clinical questionnaire exploring problems with listening to music and effects on quality of life.

Method

A short questionnaire was distributed to patients attending the Sheffield Teaching Hospitals NHS Foundation Trust Hearing Service and a private audiology clinic, Harley Street Hearing, in London. Participants were asked whether they experience

problems with music listening, whether this negatively affects their quality of life, and whether they have discussed music listening with their audiologist.

Results

Results showed that HA users frequently experience problems with music listening and almost half of the sample reported that this negatively affects their quality of life. Qualitative comments included issues with hearing music properly in live settings; social isolation; and loss of general music listening and/or participation in musical activities. The data also suggest that most participants had never talked with audiologist about music listening, and for those that had, the outcomes had rarely been successful.

Conclusions

Results support existing literature showing that music listening is negatively affected by hearing aid technology, and that there is a need for improved technology and advanced fitting procedures. Qualitative findings are discussed here in relation to the increasing prevalence of hearing loss in an aging population, the effects this has on musical engagement and participation, and implications for on-going health and well-being.

Playing at Home: Researching the musical habitus of children

Jude Robinson, University of Liverpool

Introduction

Listening to music and playing a musical instrument, either alone or as part of an orchestra, is thought to lead to enduring changes in the social and emotional experiences of individuals. The development of Bourdieu's ideas in terms of the creation of a musical habitus deepens our understandings as to how and why such transformations may take place and what they mean to people.

Aims

In Harmony Liverpool, is an outreach project of the Royal Liverpool Philharmonic that provides innovative musical education to children and young people in the city. This paper considers: how the transformative elements of music and playing a musical instrument are articulated by children; how they are observed to experience and embody any changes; and how any changes are recognized by their families and others who know them.

Methods

My methodology included observations of fourteen children aged 6-10 years participating in a five day musical summer school. I completed audio-recorded conversations with the children, lasting between 10- 15 minutes, talking to them about their instrument(s) and playing. I also carried out interviews and had conversations with their families about their children's participation in In Harmony.

Result

Children talked about the positive effects that playing and listening to music had on their mood. This was a multi-sensory experience, and their positive experiences of learning how to play an instrument related to holding their instrument, reading music and making different sounds. Other observable elements of their experience included turn taking, listening and musical appreciation, and a familiarity with musical harmonies and composition. Their families believed that the project had positively affected their children, and their enjoyment and approval positively affected their children.

Conclusions

Children and their families report positive changes to their wellbeing from the In Harmony Project. While any changes may be difficult for children to articulate, some can be observed.

The Sound of a Good Night's Sleep

Tabitha Trahan, Victoria Williamson, Simon Durrant, Daniel Mullensiefen Goldsmiths, University of London, University of Sheffield

Aims

A two-part study investigating the use and efficacy of music as a sleep aid was carried out. The first, a large Internet survey sought to determine; 1) what kinds of music are listened to in order to promote sleep and 2) the reasons people believe music improves their sleep. The second aims to compare music to other non-pharmaceutical innovations in individuals experiencing both normal sleep and bouts of transient insomnia.

Study 1

Methods . We queried basic demographics, aspects of musical sophistication (Goldsmiths Musical Sophistication Index: Gold MSI), and sleep quality (Pittsburgh Sleep Quality Index: PSQI). The type of music used for sleep and perceived pathways to effect were explored using open text responses. A two-person thematic analysis technique was used to delineate underlying themes within these responses.

Results. In total 651 people completed the survey (67% female; age $M = 33.41$, range = 18-79), with good sleep quality across the sample (PSQI = 6.61; SD = 3.43) and the majority (59%) reporting music helping them sleep. An analysis on the written responses revealed music fulfilling a distractive and/or anxiolytic role. Further investigation demonstrated a diverse collection of music being used throughout the population with 545 artists being discretely named. Classical, rock, and pop genre classes equated to just about 50% of the broader genres identified.

Study 2

Methods. A repeated measures, random control trial, informed by the results of Study 1, is ongoing. Participants are randomly assigned to two of four conditions:

survey based music, self-selected music, audio book, or silence (control). Each condition is experienced for 45 minutes prior to sleep for one week. All sleep data (latency, onset, and wake time) is collected using an in-bed phone app and the consensus sleep diary. Sleep quality is collected at the beginning and end of each condition using the insomnia severity index (ISI).

Results. Data collection and analysis is ongoing. An improvement in subjective sleep quality and ISI score at the end of the week in both music groups is expected. Additionally, we expect a greater improvement in the self-selected music condition to all others.

Discussion

The need for a non-pharmaceutical sleep intervention is crucial. With nearly one third of adults in the UK experiencing less than 5 hours of sleep nightly we are continuing to see pharmaceutical sleep aid use. In 2011 close to £50 million were spent on sleeping pills in the UK alone (The Guardian). Music has shown significant potential as a sleep aid in a number of populations (Harmat et al., 2008; Zimmerman et al., 1996; Su et al., 2013). This is the first large scale UK based survey to probe the use of music as a sleep aid in our general population. This data informed the design of an ecologically valid intervention study. The premier of this analysis will provide important insight into the efficacy of the real world application of music as a sleep intervention. We will not only gain insight into music as a tool, but also learn more about our sleep habits and health as a whole.

Paper Session 4

Group singing, health and wellbeing of street children: A non-clinical case study from Southeast Asia

Angelina Gutiérrez and Juliana Moonette Manrique, Saint Scholastica's College & Philippine Opera Company, Manila, Philippines

Context and Aims of the Study

While the Filipinos as a cultural group is acknowledged abroad for their musicality in the entertainment world and services as health workers, local studies on music and health nor music therapy remains unexplored. Out of the more than 100 million population of the Philippines, 40% are children below 18 years old (UNICEF, 2014), out of which 1.5 million live and work in the streets. In Manila, about 75,000 street children suffer malnutrition, sexual exploitation, deprivation and various forms of abuse in their daily struggle to survive.

From our multidisciplinary academic background in music education, music performance, public theology and peace education, this paper investigated the

perceived benefits of group singing in the rehabilitation of street children. Drawing on the limited corpus of evidence from the global north (Bailey & Davidson, 2002; Clift et al, 2010; Clift & Morrison, 2011) on the value of singing groups in promoting the recovery of people with health challenges, this pioneering case study from the global south attempted to answer the following research problems:

- 1) What are the perceived benefits of group singing in the rehabilitation of street children?
- 2) What mechanisms could link choir singing as a health determinant for disadvantaged groups?
- 3) What are the challenges in developing music and health interventions towards social or community reconstruction?

Methods

In employing a qualitative research design, the authors constructed a survey questionnaire to assess the extent of the health benefits of group singing among street children in Manila, who are sheltered by an international NGO. The participants in the study are a performing children's choir, ages 7-15 years, with 20 choristers, from urban poor communities.

Findings and Conclusions

Results of the qualitative and descriptive information gathered from the respondents' self-report data identified the interactions of music activity to the physical, social, psychological and spiritual factors of health. While this research supports theoretical perspectives on group singing, health and wellbeing, it is admittedly limited by time constraints and available research methodological tools.

This case study humbly hopes to add a Southeast Asian voice to the SEMPRES and the Scottish Music and Health Network in their valuable efforts as world leaders in the emerging discipline of music and health.

The benefit of choir singing for both patients with cancer and non-patients

*Rosemary Dow, Carly Reagon, Nichola Gale, Ian Lewis, Robert van Deursen
Tenovus Cancer Care, Cardiff University*

Aims

Cancer survival rates have improved dramatically in recent years, however quality of life for many patients, survivors and their families remains low even after successful treatment. Between 2012 and 2014 Tenovus Cancer Care launched 15 community choirs for people affected by cancer across Wales, to find out if this was an appropriate and effective way to support people affected by cancer. A Cardiff University (CU) study explored the effects of participation in choirs on health related quality of life (HRQoL) in individuals who have had cancer or have been affected by cancer (non-patients).

Methods

15 locations across Wales were chosen based on a range of criteria. The choirs were run in a distinctive way, with emphasis given to creating fun, fulfilling and supportive rehearsals. The CU mixed methods study included: a longitudinal analysis of choristers commencing the choirs and a series of semi-structured interviews and focus groups with choir members. For the quantitative analysis patients and non-patients completed the Short-form 36 as measure of HRQoL and the Hospital Anxiety and Depression Scale on commencement of the choir and 3 and 6 months later.

Results

Over 1,000 people joined the choirs. In patients, choir participation improved vitality, overall mental health and anxiety. In non-patients, choir participation improved anxiety ($p < 0.05$). Participants experienced the choirs as both an uplifting musical activity and a supportive community group. These together may have contributed to improvements in HRQoL which assisted coping, loss and treatments associated with cancer.

Conclusions

The act of singing and the community of the choirs may have a beneficial impact on the lives of people affected by cancer. The study suggests that choirs may provide appropriate support for patients with cancer and non-patients as an additional or alternative approach to traditional support groups and the support provided by healthcare professionals.

Posters

Mirroring, modelling and emotional contagion: the impact of non-verbal communication upon choral confidence

Michael Bonshor, University of Sheffield

Aims

The benefits of choral singing, in terms of physical and mental health, emotional wellbeing, and social cohesion, are well documented, and can make a positive contribution to social capital. However, there are factors which may limit an individual's willingness or capacity to participate in group singing activities. During a study of Music Performance Anxiety amongst adult singers, I found that, whilst severe cases of MPA were not common amongst amateur participants, confidence-related concerns were widespread. For some singers, such concerns limited the extent or level of choral participation, which suggested that confidence issues were

likely to reduce the individual and social benefits derived from group singing. My current research aims are to identify sources of choral confidence, to examine negative influences on singers' confidence levels, and to extrapolate confidence-building strategies for amateur choral singers.

Methods

Three focus groups, involving 18 singers in total, and 16 individual interviews provided over 40 hours of recorded verbal data. These were processed using interpretative phenomenological analysis.

Findings

The superordinate themes included non-verbal communication and physiological factors, which included breathing, posture and facial expression. The findings highlighted the effects of modelling and mirroring these aspects of body language, both amongst the singers and between the choir and the conductor. The interaction between these physical, psychological and social factors was found to have an effect upon the achievement of group flow, which can reduce self-consciousness and increase self-confidence during optimal performance.

Conclusions

These findings suggest a holistic interpretation of the functioning of choral ensembles as social and musical entities, which has implications for choral leadership. This paper includes a consideration of group dynamics and situated learning within choirs, reflections upon the role of the conductor in adult amateur choral groups, and practical recommendations for optimizing choral confidence and maximizing the benefits derived from participation.

Music – a Swiss army knife for wellbeing

Andy Fletcher, Sue Carr, Northumbria University

The idea that music increases wellbeing is well-established and forms the basis for this research. There exists a wealth of evidence for the benefits of music participation in clinical settings – notably from music therapy. The benefits of music to wellbeing in wider settings are less well documented – although the literature base is growing as social research methods become more sophisticated and gain wider acceptance.

Aims: This study, a Realist Evaluation, aims to uncover some of the mechanisms that connect music with increased wellbeing in social participatory music-making settings.

Methods: Three case studies are identified, with participants facing a range of challenging circumstances brought about by mental health issues or learning disabilities. I have been a researcher/participant with these music-making groups for six months. Ethnographic observations, combined with literature and interview data

are being used to synthesise, develop and test Programme Theories (PTs), which help to explain how music increases wellbeing at the non-empirical level.

Results: Data collection is ongoing. However, early analysis indicates a range of promising PTs.

Adults tend to value 'being in control' as critical to their wellbeing. Music activities provide a range of opportunities for this and in particular for controlled modification of energy levels. Younger people place worth on 'sanctioned' noisemaking in a group and this affects their behaviour with others in a positive way.

Conclusions: At this stage, I am reluctant to draw any firm conclusions. However, the findings are expected to inform participatory music programmes that aim to increase wellbeing for people who are in circumstances that may lead to social isolation.

A marriage made in heaven? The effects of a targeted mindfulness course on learning singing technique

Anne-Marie L. Czajkowski, Alinka E. Greasley, University of Leeds

This paper reports the development and implementation of a unique Mindfulness for Singers (Mfs) course. It was designed to complement formal singing education by teaching mindfulness in a relevant way to University students studying voice. Eight students completed the intervention specially modified from the Mindfulness Based Stress Reduction course (MBSR) (Kabat-Zinn, 1990). They completed the Five Facet Mindfulness Questionnaire (FFMQ) (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) taken pre- and post-intervention which showed significant improvements in the facets Non-Judge and Non-React and small increases in the other three facets of mindfulness. One-to-one interviews revealed a wide variety of the benefits of daily mindfulness exercises on learning singing technique such as breathing, micro-muscular awareness, vocal tone, text communication and problem solving. Improved aural and physical sensory awareness led to better memory, application, and transfer of new technique into practice and performance. Participants experienced greater awareness and improvement of their vocal sound, tone colour and text communication, and found problem solving (such as dealing with extraneous vocal tension) easier, quicker, and more effective. Mindfulness exercises also positively affected other aspects of singing such as teacher/pupil relationships, concentration and focus in lessons, practice, performance anxiety, performance creativity, taking criticism and daily life. A blind study was conducted with the participant's teachers who were able to identify 6 of the 8 participants from their combined student register (n=32). The implication from this groundbreaking research is that all students of voice at any level would benefit greatly from a mindfulness course as a holistic intervention. With such positive findings, a repeat of the above study is planned with the added dimension of a longitudinal study and

control participants. Further research is also being conducted to investigate the effects on a wider demographic of instrumentalists at conservatoire level on their music lessons, practice and performance.

Codi'r To [Raising the roof]: A qualitative investigation into the impact of the 1st Welsh Sistema project

Gwawr Ifan, Bangor University

Aims: Following the success of the internationally renowned 'Sistema' music and community regeneration projects at various locations in the UK (e.g. Big Noise, Scotland; In Harmony, West Everton), the aim of this study is to investigate the effectiveness of the first Welsh Sistema project – 'Sistema Cymru – Codi'r To'. During the project, professional music tutors work in two primary schools in Gwynedd, north Wales, leading music lessons and teaching children to play brass and percussion instruments. Both schools are located in areas that received a high ranking in the Welsh Index of Multiple Deprivation in 2014 (Welsh Government, 2014).

Methods: This paper will focus on the qualitative research that was carried out in July 2015, at the end of the first full year of the 'Codi'r To' project. A total of 17 in-depth semi-structured interviews were carried out with parents, teachers, head-teachers and 'Codi'r To' tutors to gain a full understanding of the nature of the project and its impact on the children, the school and the community in general.

Results: Data will be presented focusing on overarching research themes collated from the interviews. Specific consideration will be given to the impact the project may have had on building links between the school and the community, and the attitude, achievement and general wellbeing of children involved in the project.

Conclusion: The results of this investigation will be used to create a list of recommendations for the future development of the 'Codi'r To' project. At a time when musical education is at a vulnerable and fragile position, methods of measuring the long-term impact of music on the health and wellbeing of children living in areas of multiple deprivation will also be considered.

From Magic to Science: an overview of music therapy and depression through the ages

Michaela Korte, Victoria J. Williamson, University of Sheffield

Aims: According to conservative estimates, 38.2% of the EU population are affected by depression each year. This situation presents both social (inability to work, early

retirement) and personal consequences (reduced quality of life, increased co-morbid illnesses). Music therapy has a long tradition of helping to alleviate symptoms of depression. This review will present a history of the literature surrounding the use of music therapy for the treatment of depression with the aim of summarising the main pathways to effect.

Methods: This review uses a cultural-historical approach to investigate written (medical) material relating to the use of music-based treatments to alleviate depression, ranging from Pharaonic Egypt to contemporary clinical studies.

Results : Music therapy is shaped by the beliefs and traditions about how illness is perceived at the time. Over the centuries music has been used alongside other remedies to treat depression-like symptoms to great effect. The first systematic studies in the late 19th / early 20th century failed to identify exact variables for music's curative effect, which almost rendered music therapy extinct. Tentative trials only recommenced around 1950. To date there are still too few contemporary studies to give definitive answers, however, recent carefully controlled research has reported positive effects of music on biological/neurological parameters of depression across multiple populations, in response to both receptive and active music therapy.

Conclusion : Music therapy is an historical, yet innovative treatment approach for depression, and an increasingly respected adjunct to the multi-modal therapies available to treat this condition. Music's ability to interact directly with an individual's needs is particularly relevant in view of the latest trends in depression research. There is a pressing need for more powerful cross-disciplinary studies, in order to further specify/ test music-related pathways to effect.

Application Of Music In Allied Healthcare - A Cross Cultural Investigation

Mary Haiping Cui, Don Knox, Glasgow Caledonian University

Aims: To compare and contrast music listening experiences in healthcare settings across culturally, this study aims to investigate the value of self-chosen music in cross-cultural contexts and promote the application of music in healthcare.

Methods: Mixed-method study was performed on the platform of Chinese acupuncture clinic in Scotland. A total of 24 clients undertaking acupuncture treatment for back pain took parts, including 12 with Scottish cultural background and 12 with Chinese cultural background. In total, there were 14 females and 10 males, age ranging from 29 to 65 (mean = 40.5). Self-assessed levels of physical pain, emotional pain, stress, relaxation and energy were taken before and after acupuncture treatment with and without preferred music alongside, followed by a post-study interview.

Results: Results indicated music intervention enhanced treatment effects. Anti-stress effect of preferred music was shown. In both groups, physical, emotional pain

and stress level was significantly reduced after acupuncture treatment with the enjoyment of preferred music. Relaxation level was found more significantly increased among Chinese, while Scottish participants with higher energy gaining. Familiarity to acupuncture treatment and different music choices may be accountable to these different effects. Generally speaking, acupuncture is more familiar to Chinese. Soft and melodically flowing music was the major characteristics of music chosen by Chinese, while Scottish preferred fast beat and energetic music to play along. Qualitative data highlighted more 'pleasant', 'relaxing' and 'familiar' environment created by music, which also eased possible tension caused by acupuncture itself by 'attending to favoured music'. Preferred music created sanctuary space for physical and emotional rest.

Conclusions: Healing effects of music are both physical and emotional. The application of music in healthcare setting is valuable. Further exploration of chosen music and relationship with listener may contribute towards more effective application of music to promote health and wellbeing in multi-cultural contexts.

The following authors will also present posters of their work – see abstracts in the SEMPRE Study Day section

A study of cognitive, behavioural and affective transfer effects associated with children learning musical instruments for the first year over one academic year.

Dawn Rose, Goldsmiths, University of London

Music Cognition and Working Memory: Exploring a possible tonal loop

Catherine Jordan, University of Edinburgh

Music Performance Anxiety – Where Next?

Hugh T. Cowell, Alexandria Lamont, Keel University

An investigation of the global impact of music in dementia care: perspectives from the individual with dementia, carer and healthcare practitioner

Anna Paisley, Glasgow Caledonian University

A Comparative Study of Subjective Well-Being Among Musicians and Non-Musicians

Christ Billy Aryanto, Universitas Indonesia, Depok, Indonesia

Minding the Body: An integrated theory of optimal posture in musicians

Ann Shoebridge Nora Shields, Kate Webster, La Trobe University, Melbourne, Australia

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