

**Music-making with
Hospitalised Children**
**Outcomes for children, families,
hospital staff and musicians from
LIME Medical Notes (2) and
Songbirds projects**

A Research Report

August 2016

This study was carried out by the University of Salford CYP@Salford research group on behalf LIME and Central Manchester Hospitals NHS Foundation Trust (CMFT). The study was funded by Youth Music with the support of the Charitable Funds Committee at CMFT. The purpose of the study was to identify the outcomes for children, young people, their families, hospital staff and Music for Health musicians following their involvement in music-making at the Royal Manchester Children's Hospital.

The research team acknowledges the support and time given by the children and young people, their families, the hospital staff and the musicians who gave freely of their time to make this research possible.

Our research spans health, social care and education, and focuses on enhancing services, improving outcomes and evidencing impacts on children and families. The research group works closely with colleagues in the NHS, Local Authorities, the Third Sector, and national networks. We have research links with international partners in the Nordic countries, the Middle East, the Far East, Europe and Australia.

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THE LIME MUSIC for HEALTH TEAM

Mark Fisher

Guitarist/bassist/bouzouki player and composer Mark Fisher specialises in composing music specifically for the healthcare setting. A self-taught musician, he has spent much of his career playing in bands, collaborating with a diverse range of musicians and writing songs. After completing a foundation course with Access to Music, an organisation training pop musicians to develop skills required for educational projects, he went on to gain a BA Honours degree in Music and Philosophy with the Open University, completing this in 2006. Composition commissions include creating music for touring theatre and site specific installation projects, participatory creative music programmes with adults with mental health needs and in devising musical stories and radio plays linked to the patient experience of hospital and recovery. Mark has worked extensively as a musician and composer in the fields of disability and healthcare, and in palliative care, contributing to and devising music centred programmes for each setting as part of musician in residence and artist commissions. His music aids in promoting relaxation and stress reduction for participants, patients, families and staff members. A significant proportion of the participants Mark works with have a limited life expectancy and producing creative musical material that can be kept by participants' families is an important part of his work. Mark is a founder member of Rosfishmusic, and works as a trainer of both music and medical students as part of his role as Music for Health Specialist at Lime Arts, alongside Ros and Holly.

Ros Hawley

Ros has presented on her practice, and led creative participatory projects for professional musicians working in SEND (Special Educational Needs and Disabilities) settings, and healthcare settings, both nationally and internationally. Her work includes evaluation and consultancy commissions for UK orchestras and organisations working in SEND music education and patient centred, ward based hospital music programmes. In 2013 her case study, on music practice in hospital, '*I am the Moon*', was published by the UK music education organisation Music Mark. Ros worked as a lead artist and trainer for UK orchestras, music organisations Jessie's Fund and Live Music Now! and with the Music for Health Programme at The Royal Northern College of Music in Manchester before undertaking her current role of Music for Health Specialist at Lime Arts. As a founder member of Rosfishmusic she explores music making as a means of sensory exploration, communication, and interaction in partnership with fellow musician and composer Mark Fisher. Alongside her career in Music and Health, Ros is also known for her work as a klezmer musician and teacher, described by the Guardian as 'one of the UK's leading klezmer clarinetists'.

Holly Marland

Holly Marland has been a pioneering force within the field of Music for Health for 15 years and now works full time as a performer, composer and practitioner, using Kora (West African Harp) and voice to create music with a wide range of 'at risk' communities. In addition to working as a Music for Health Specialist for LIME, Holly works for the charity Music in Hospitals, is a registered Music Therapist (Nordoff-Robbins) and broadcasts regularly with BBC Daily Service Singers. She also performs with Michael Cretu (composer/double bass) in the acclaimed duo Stringboxes, combining world, folk,

contemporary classical and popular genres. Recent commissions include creating a CD of song resources for families with premature babies at the Neonatal Intensive Care Unit at Royal Stoke University Hospital and live broadcasts and performances of compositions for Kora and Choir for BBC Radio 4 and Manchester Cathedral Choir.

Tom Sherman

Tom Sherman is a professional musician and music leader with eight years experience of working with vulnerable people, from hospital settings and care homes to mental health units, prisons, special schools and community settings. He works for the nationally renowned charities Jessie's Fund and Live Music Now! among others, as a trainer and mentor, developing quality practice with both musicians and teachers working across the sector.

Cecily Smith

Cecily Smith is a freelance cellist living in the North West. She studied at the Royal Northern College of Music and is fortunate to have been involved in the Medical Notes projects since they started in 2011. She has a varied musical life, and although classically trained, has a particular interest in folk music. She enjoys pairing her voice with the cello in performance and in healthcare settings. Cecily also has an interest in cross-arts working, and enjoys exploring the relationship between both the visual and dramatic arts and music, in baroque continuo as well as in art and theatre settings. She performs with the contemporary ensemble *Dark Inventions* and the cello group *The Manchester Eight Cellos*. Outside of her musical life, Cecily is studying counselling, and has a keen interest in handicrafts and their effects on wellbeing.

Ruth Spargo

Ruth Spargo studied the cello with Emma Ferrand at the RNCM. She graduated in 2008 and completed her Masters there in 2009. Ruth later moved to Gothenburg, Sweden to study a Masters in Orchestral Studies and now lives in Stockholm. Alongside her work at the RMCH, she enjoys varied freelance work in Sweden and the UK, including orchestral playing and chamber music as well as smaller independent creative projects. She is a founding member of the c/o chamber orchestra; a young independent European ensemble working and performing without a conductor, and played with them at their debut in Berlin, July 2014.

Ruth was a trainee on the first a Medical Notes project in 2011 and is now a supervisor on the program. The experience has been a steep learning curve for her, and she really enjoys the challenge of mentoring, as it demands the reconsideration of one's own working practice again and again. She also finds it creatively inspiring to work with such a talented and diverse group of musicians.

Kathryn West

Kathryn is a singer and a Music for Health Practitioner. For the past two years she has been working on the 'Medical Notes Project' at the Royal Manchester Children's Hospital and is beginning to develop this work into other areas in Hospices and Care Homes. She has a particular interest in mental health and would like to further her studies to train as a Mental Health Nurse. Her passion for this has grown out of all her experiences in music for health work and her enjoyment in supporting people. More personal projects for this year include collaboration with a friend on a piece of experimental, electronic music which she hopes to perform at different venues across the UK. She is also planning some recitals centred around showcasing some of her favourite French repertoire by composers such as Debussy.

Emma Richards

British violist **Emma Richards** is based in Manchester and performs internationally as a soloist and chamber musician. She has been the recipient of numerous scholarships and prizes including the Cecil Aronowitz Memorial Award and the Liz Lawrence Award and as an undergraduate she studied at the Royal Northern College of Music. In 2012 Emma received a Countess of Munster Musical Trust award to pursue her postgraduate studies in Germany with Roland Glassl. Emma is sought after as a performer of contemporary music and is dedicated to promoting the music of today. She is the violist of Distractfold Ensemble and Ensemble Grizzana and is a guest violist with the Parisian group Soundinitiative. Distractfold are recipients of the Kranichstein Music Prize for Performance at the Darmstadt International Festival for New Music. This season has taken Emma as both soloist and chamber musician to Pontevedra, Basel, Geneva, Poznan, Darmstadt and Creuse as well as throughout the UK and future commitments include concerts in London, Huddersfield, Zurich, Gdansk, Darmstadt, Chicago, Boston and New York. Emma has worked with the Royal Liverpool Philharmonic and the BBC Philharmonic and currently performs in a duo with pianist Cordelia Williams. Emma is passionate about bringing music to health-care settings and worked for the last two years as Music for Health Practitioner at the Royal Manchester Children's Hospital as part of the LIME Medical Notes project.

Ruth Segaud

Ruth Segaud is a freelance violinist, having graduated from the Royal Northern College of Music in 2010. She continued her studies with a postgraduate certificate in Early Childhood Studies from Metropolitan University and has been able to combine her interest in music and the early years during her time with the Medical Notes team at the Royal Manchester Children's Hospital. As well as her music and health work, Ruth runs her own business, where she organises and performs for weddings and events across the UK.

Tom Evans

Since graduating from the Royal Northern College of Music in 2012 Tom has enjoyed a varied and busy freelance career combining orchestral and chamber music performance, music for health and education. As an orchestral player he has performed with the Hallé Orchestra, BBC Philharmonic, Raymond Gubbay's Manchester Concert Orchestra and Sinfonia ViVa amongst others. With his reed trio, Trio Volant, he gives recitals up and down the country for music clubs and societies. Alongside this the trio leads educational workshops as part of the Live Music Now scheme, Superact and Creative Inspiration. Working closely within SEN settings Tom is a Project Co-Leader with Jessie's Fund, Assistant Workshop Leader with Music Unlimited as well as being Musician-in-Residence at a number of schools on a long-term basis.

Lucie Phillips

Since her apprenticeship with Lime Art Medical Notes project, Lucie has been successful in getting onto the Nordoff Robbins Music Therapy Masters programme. This aspiration would not have been achievable without the experience gained during the Medical Notes project at Manchester Children's Hospital. Lucie has a part-time job at UTC@mediacity where she runs a student choir, although her primary role is learning support, mainly for SEND pupils. To help fund her masters, she enjoys teaching music theory, singing and piano too. During her free time Lucie plays in a private function soul band and the Klezmer band she's involved with often performs at Heathlands care home, as well as

doing regular gigs in and around Manchester's Jewish community. When the opportunities arise, Lucie fulfils one of her main passions of jazz/blues by singing with local big bands and jazz ensembles.

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SECTION 1:

Background to the Study

Children account for 21% of the population in the United Kingdom (Office for National Statistics 2015). Each year, one in fifteen children will be admitted to hospital, many of whom will have complex healthcare needs; a significant proportion of these will require highly technical interventions (NHS UK 2014). Significantly, some children with complex healthcare needs have many repeated admissions to hospital while others live in hospital for extensive periods and may be *medically fragile* and have been termed as children with medical complexity (CMC) (Peter et al 2011, Cohen et al 2011). While researchers have attempted to develop knowledge regarding the impact of hospitalisation on children, many of those in hospital for extended periods of time remain invisible in terms of what is known about the impact that hospitalisation has on their lives and their long-term development. The Music for Health programme is drawing attention to the plight of these children by providing ‘music-making’ sessions that are tailored and available for many children and their families receiving in-patient care at the Royal Manchester Children’s Hospital (RMCH).

The impact and outcome from the first Medical Notes project have been reported (Cavanagh et al 2012). This second report details the research findings on the impact and outcomes from the subsequent phase of the project activity at RMCH which included the second Medical Notes project (Medical Notes 2) and Songbirds, a specialised project focused on work with children that have acquired brain injury or long-term conditions. Both projects were undertaken between September 2013 and September 2015.

Medical Notes (2) and Songbirds Projects Overview

A successful partnership in music-making in Manchester Children’s Hospitals extends back over a decade and continues to evolve. Historically, The Royal Northern College of Music (RNCM) Music for Health (Music for Health) expert musicians delivered music-making activities at Booth Hall Children’s Hospital. Since then, acute, specialist and tertiary children’s services have merged into a central Manchester site, the Royal Manchester Children’s Hospital (RMCH), creating a regional centre of excellence in which music-making continues to be an integral aspect for many children and families admitted as in-patients.

In 2013 the Music for Health (Music for Health) musicians moved from RNCM to become part of LIME¹ (August 2012). Lime is a charity organisation hosted by the Central Manchester University Hospitals Foundation Trust (CMFT) that provides arts-in-health through innovation and creativity. Led by three expert Music for Health musicians, the Medical Notes projects were funded by Youth Music² for two years (2013-15) working across a broad range of existing and new partnerships with the support of CMFT Charitable Funds Committee. The Lime Music for Health programme developed by providing an apprenticeship model of training and experience for other highly skilled musicians wanting to develop Music for Health skills with children as well as offering two expert Music for Health practitioners the opportunity to undertake a sustained residency.

The programme therefore comprised two distinct strands of activity:

- Medical Notes (2) - music-making with children repeatedly admitted as in-patients or for short episodes of repeated treatment
- the Songbirds project which engages children admitted for more than 7 days with acquired brain injury, long-term ventilation needs and those with ongoing, complex, chronic and/or life-limiting conditions.

¹<http://www.limeart.org/about.php>

²<http://www.youthmusic.org.uk>

SECTION 2:

Summary of The Literature Review

Please see Appendix 1 for a full review of the search strategy and critique of experimental studies related to the use of music with children in hospital. These studies tended to focus on the use of music and music therapy with children in hospital following trauma, those in ICU, those suffering from pain and anxiety, and music and rehabilitation. Many used recorded rather than live music as the intervention. None focused on bedside music-making. Most of the studies were undertaken outside the UK, and the overall quality of the evidence reviewed was judged as poor by the research team who noted that any recommendations derived from the reported research must be considered with caution.

Here we summarise the findings from the review of research and evaluations specifically focused on bedside music-making with children in hospital as they described best the music-making with which the musicians in these projects were engaged. Preti (2009) identified four different types of musical delivery within hospital settings: 1) bedside music, 2) regular concerts, 3) special music events, 4) artists-in-residence programmes.

Outcomes of Bedside Music-Making for Children and their Families in Hospital

Longhi and Pickett (2008, 2013) completed two small studies in a hospital in London, England with children admitted with cardiac or respiratory problems. Although the studies were underpowered, the results are of interest to this study. In the 2008 study, 21 children between the ages of 3 months and 14 years were recruited and exposed to a 30 minutes music-making session in which the researcher played guitar and sang songs. An analysis of the children's heart rates and their oxygen saturations before and after the session showed no impact on the first outcome measure but a significant impact on the second. The researchers concluded that music-making had impacted positively on the children's wellbeing. In their second study (2013) they sought to identify if it was the music-making or adult attention associated with this that made the difference. Subjecting 37 children, again with cardiac or respiratory problems and aged between 7 days and 4 years, to 3 interventions (a 10-minute music-making session incorporating well-known nursery rhymes, a 10 minutes reading intervention, and 10 minutes with no interaction), they measured the children's heart rates and oxygen saturation before and after each activity. They concluded that it seemed to be the music-making rather than the adult attention that was responsible for improved wellbeing (determined by an increase in oxygen saturations). However, Preti and Welch (2011) argued that it is personal associations with the music selection rather than the music *per se* that matters most. Thus, the musical identity of the children and their families is central to the process of communication through music. Longhi and Pickett (2013) went on to note parental reports that some positive effects from the music may assist with interaction and bonding.

Two recent, small-scale, qualitative evaluation reports by Haake in England (2013) and Ireland (2015) identified some of the outcomes of 'bedside music' on patients, families and staff in paediatric settings in the East Midlands and Ireland respectively, deriving both qualitative and quantitative data through a small scale Likert survey and brief semi-structured interviews. Following the methods used by Cavanagh et al (2013) the 2014 study was undertaken in a hospital in Nottingham and included 81 respondents, of which 40 were parents, 35 healthcare staff and 6 children. The 2015 study undertaken in a hospital in Dublin involved 81 respondents, 31 parents, 34 healthcare staff and 16 patients. The findings reported from both studies concluded that parents thought that the music-making had helped their children to relax and be happy. The evaluator also claimed that bedside music-making provided an interactive space that eased the anxiety and stress of hospitalised children, their care-givers and staff by proxy, bringing entertainment, relaxation and a level of normality into the hospital environment. However, the researcher drew almost exclusively on adult interpretations as it was considered inappropriate to talk directly to many of the children.

Similarly, Preti and Welch (2011) sought to establish the impact of bedside music-making for hospitalised children, their care-givers, staff and musicians in Italy by observing music making activities with 162 children and 146 care-givers over a period of 4 weeks. In addition, interviews with 14 children and 22 care-givers were undertaken and interview data, field-notes and videos were subject to thematic analysis. In keeping with Longhi et al (2008, 2013) and Haake (2013, 2015), Preti and Welch reported that music-making distracted the children enabling them to focus on something other than their illness. They also speculated that it was the familiarity of the musicians' repertoire that reduced the perceived threat associated with the hospital environment by creating a more normal space.

Preti and Schubert (2011) have argued that case study research methods used in these studies enabled insight into the importance of a number of factors such as, music preference, familiarity, cultural context, past experiences and the perception of elements of the music including structure, tempo and dynamics. They also report one impact of music as easing distress for parents. According to Preti and Schubert (2011), the key to successful sonification³ is the selection of music from the musicians' repertoire to attract the attention of children. They go on to describe the observed work of one musician whereby they would begin to play music in the corridor until they noticed a particular interest from a child. They argue that early identification of interested children indicates an early success of the sonification process. This resonates with the musical engagement processes described by Cavanagh et al (2012).

³ Sonification is the use of non-speech audio to convey information. More specifically, sonification is the transformation of data relations into perceived relations in an acoustic signal for the purposes of facilitating communication or interpretation. <http://sonification.de/son/definition>

Outcomes of Bedside Music-Making with Children and their Families for Musicians

We could find just three studies that reported outcomes for musicians. Cavanagh et al (2012) – this has previously been reported for the Medical Notes (1) project. Preti and Welch (2012) reported their findings from a study with 8 musicians playing bedside music in a children's hospital in Italy. Focusing on their physical and psychological perception over a 4-week period, they reported that such work was physically and psychologically demanding, especially when the musicians were expected to improvise, actively engage with the children and cope with the medical fragility of the children with whom they worked. Of note was that the training for these musicians consisted of 4 weeks, with no ongoing mentorship or supervision. Oakland (2013) explored the distinctive qualities and the continuing professional development needs for musicians engaged with the Music for Health programme at the Royal Northern College of Music, Manchester. She reported that while the musicians had difficulty in articulating a distinct approach to Music for Health in the UK, their understanding of the distinction seemed to rest on two differences; their identity as musicians rather than music therapists and; their ability to broker non-hierarchical relationships with children and their families that were different to the relationships between children, their families and hospital clinicians.

Summary

To date, there is some evidence that active music-making at the bedside, can help to reduce pain and anxiety for some hospitalised children in some circumstances - though not all. There seems to be a consensus emerging that bedside music-making can ease distress, calm and soothe children. It can also distract, and provide a useful emotional outlet for children, parents and care-givers. There is also some evidence that music-making can also be used to help children cope with difficult and distressing procedures.

However, most studies use small scale samples and the bedside music-making sessions being studied are not directly comparable (for instance compare Preti and Welch 2011 with Longhi and Pickett 2013). We concluded that there is a need for a clarification of the actual musical processes at work in 'bedside music' and further discussions around the particular benefits of interactive approaches as opposed to simply attributing certain benefits to the 'music per se'. There is also a need for rigorous research methods that enable children, regardless of their communicative ability, to be involved, and for research to use outcome measures that go beyond physiological measurement of heart rate, oxygen concentrations and coping ability.

SECTION 3:

Research Design

The research team took account of there being a paucity of high quality evidence on the outcomes and impact of music-making with children in hospital alongside the need to work collaboratively with key stakeholder groups. In keeping with the Medical Research Council's (2000) advice on developing an evidence base for complex interventions, a pre-clinical, qualitative case study approach was taken to establish some insight into the experiences of children, their families, hospital staff and musicians during and after music-making sessions in both projects.

STAKEHOLDER GROUPS

The main stakeholders identified for this evaluation included the staff at LIME, in particular, Music for Health experts, supervisors, mentors and apprentices; the children and families who stood to benefit directly or indirectly from the music-making activities; the hospital staff, especially those working with children recruited into the Medical Notes (2) and the Songbirds projects at the Royal Manchester Children's Hospital.

The evaluation took a case study approach as described by Widdowson (2011) to focus on the three main elements of the Youth Music funded programme at RMCH; Medical Notes (2), Songbirds and the Music for Health musicians' transition experience to becoming expert Music for Health practitioners. The case study design enabled multiple components to be addressed as it offered rich methods to study single cases, with the findings of the approach being researched and verified through replication of outcomes across similar cases in each element while ensuring that the subtlety and complexity of each case was captured. It also enabled meaningful collaboration with all stakeholders. In both the Medical Notes (2) and Songbirds, each child and family constituted a single case. Each tier of musicians (explained later) formed the basis of the case studies for documenting the Music for Health musicians' transition experience.

EVALUATION AIMS

Both projects were required to address two compulsory generic outcomes specified by the funder Youth Music.

1. To improve the standards of music delivery for children and young people.
2. To embed learning and effective practice in host and partner organisations and share practice beyond the project.

Medical Notes (2)

The aim of the Medical Notes (2) project was to provide children and young people aged 0-19 at Royal Manchester Children's Hospital with sustained opportunities to explore, play, interact and create through music-making, supported by highly skilled Music for Health practitioners. The project objectives formed the basis for the research into that element.

Objectives Medical Notes (2)

1. To nurture the musical talent and potential of hospitalised children and young people (CYP), helping them to increase their resilience.
2. To develop sustainable links between the musical community at the Royal Manchester Children's Hospital and the wider musical community in order to support musical progression
3. To enhance the skills of Music for Health practitioners in the UK and to increase healthcare practitioners' confidence in using music

Songbirds

The aim of the Songbirds project was to improve the musical and wider development of children with acquired brain injury, those needing long-term ventilation and those with complex chronic and/or life-limiting conditions through creative music-making supported by highly skilled, expert Music for Health practitioners.

The project objectives formed the basis for the research into that element.

Songbird Objectives

1. To improve the personal, social and emotional development of young children at higher risk of delay through participation in creative musical activity.
2. To improve the communication, language and literacy development of young children at higher risk of delay through participation in creative musical activity.
3. To provide carers and parents with support and resources that enable them to continue to engage young children in creative musical activity during and beyond hospitalisation.

Transition Experiences of Music for Health Musicians

The aim of this element was to identify the development of skills and competency of the apprentice, mentor and supervisor Music for Health trainees and identify the mechanisms through which Music for Health experts facilitate the maturation of mastery over the length of the training programme.

Evaluation Objectives Transition experiences of Musicians

1. The quality and standards of music delivery for hospitalised children and young people will be improved by enhancing practitioners' skills through a programme of continuous professional development.
2. Training will be provided at three distinct levels
 - a. Apprentice - early-career practitioners supported into independent practice
 - b. Mentors - independent practitioners supported to train early-career practitioner
 - c. Supervisor - experienced Music for Health practitioners supervising training

ETHICAL APPROVAL

Ethical approval was secured from the University of Salford, College of Health and Social Care, Research Ethics Committee (HSCR14/21). Permission to undertake the research was granted by Royal Manchester Children's Hospital engagement lead.

An information leaflet was produced and available in all clinical areas outlining the purpose of the study. All data was managed securely in accordance with the Data Protection Act (1998). Pseudonyms have been used throughout this report to protect the identities of participants.

Recruitment and Participants

Children and Family (cases)

An analysis of the Music for Health programme aims and objectives was undertaken to establish the background and intentions of the project and to establish appropriate groups of children (cases) for inclusion in the sample. The context for each of the cases was drawn from interviews with children, parents, carers and healthcare staff; this included lay explanations of the children's needs and capabilities alongside the reason for the children's admission to hospital as understood by their parents or carers.

Each (child) case, where possible, included the views and opinions from the parents and other relatives, healthcare staff and the musicians working with them. Healthcare staff included physiotherapists, occupational therapists, play specialists, nurses, specialist consultants and medical students. The medical students were taking part in an elective Music for Health 4-week module during year three of their medical degree.

The research team collaborated with healthcare staff to identify and recruit six cases recruited from the Medical Notes (2) project with a further seven cases from the Songbirds project. These were selected to represent a diverse range of characteristics associated in the project target groups. The research team limited their field-work work to no more than 2 children from either project at any one time. Please see biopics Box 1 and 2 for all children.

Once identified, children and parents were given appropriate participant information sheets by the play specialists working in the relevant ward or department areas. The names and hospital location of those parents and staff that expressed an interest in being involved were passed to the research team. A member of the research team made contact with the parents, children (when appropriate) and answered any questions they had regarding the research, and secured informed consent.

While it had been agreed through ethics permissions that signed consent would not always be necessary, some parents and some children chose to sign these. Following this mutually convenient times to undertake field work and when possible interviews, were agreed. The number of participants by designation to each element of the study and those involved in interviews related to each case.

An information sheet detailing the aims and objectives of the research was made available in all ward areas and ward staff asked to disseminate information regarding the study to members of the ward team. Staff were asked to contact members of the research team with any questions regarding the planned observations and subsequent interviews or if they wanted to opt out from field-work observations. No-one made the decision to opt out. Those members of staff interviewed signed a consent form or gave verbal consent for their consent for the interview to be digitally recorded and transcribed.

Box 1: Biopics – Medical Notes (2)

These have been sketched from the words of the children and their care-givers to present the children as they are known by them.

Children and Young People	
Annora - Aged 7	Annora – I come to the hospital every week because I need a drug which is enzyme replacement therapy to make me grow tall.
Billy - Aged 12	Mother - Billy fell off his bike while riding with his father and brother. He has a musical background and is usually very polite. He is very confused and his behaviour since the accident has been very bizarre
Danial - Aged 12	Danial – I come in every Thursday and it is for this condition I have. I have regular medication at the hospital
Freddie - Aged 3	Grandfather – has cystic fibrosis and every so often gets a chest infection and he has to come straight in and has intravenous antibiotics. He is as fit as a fiddle in himself but not to go wandering around in here for fear of cross infection
Josh - Aged 9	Mother – if you saw what was wrote down about his difficulties on paper you wouldn't expect to see the child that he actually is. People are always quite shocked at how sociable and happy he is when he's enjoying things he likes. He has complex healthcare needs and has some physical disabilities which do not enable him to move his hands appropriately. He is a very smiley, sociable, happy boy
Saad - Aged 1	Foster mother - Saad came to the country from the Middle East, he had severe development delay and very little language. He has many complex health care needs but has been admitted due to an infection and is in isolation.

Box 2: Biopics – Songbirds

Children and Young People	
Asmita - Aged 2 ½	Mother – she has a syndrome (name not clear) and has never been home. She's come a long way, she understands you, she's not sitting up but hopefully she will be doing that soon. Her hearing is OK and her sight is OK, she's fine that way.
Emily - Aged 2	Emily was 3 years old and had never been home. She had large swelling in her throat which meant she could not breath properly. She had been ventilated for a long time and had a tracheostomy. She would shuffle on her bottom to move around the ward but seemed to bounce in and out of isolation
Lauren - Aged 3	Mother – Lauren was born with a severe brain disorder. And part of the disorder, she's got hydrocephalus. She's only got very little brain. She's got a disorder which basically means that her two front lobes didn't separate... and it's like a black hole and it's filled with fluid and because of that, she has to have what's called a VP shunt. She has to keep coming into hospital as the shunt keeps blocking, she has had about 30 operations up to now. Lauren doesn't talk so because we've been with her 24 hours, seven days a week for like from birth, we know Lauren inside out so she communicates to us in her own way. The surgeons and consultants, they've always said that Lauren's not got an understanding, she doesn't...she's not got anything, a part of her brain, but she clearly has. Even her school has said they will write any type of report to say that Lauren clearly has got an understanding.
Lewis - Aged 10 months	Mother – Lewis has a condition which predominantly effects his muscle tone. He is on a ventilator as it effects his core muscles and he hasn't got the strength in his lungs to breathe himself. He has been in hospital since he was born, we've not had him home yet.
Lily - Aged 10	<p>Father – Lily was in a Coma and it took us quite a while to get out of that and she was totally paralysed and in bed.</p> <p>Play Worker (PW) – Lily has a left sided weakness and she had a reluctance to use the left arm.</p>
Rachael - Aged 9	Mother – Rachael was born at 26 weeks and she was not ventilated, she has got quadriplegic cerebral palsy, complex epilepsy, visually impaired and various other things and is in hospital quite a lot.
Moemen - Aged 2	Moemen's mother asked that his personal details were not reproduced in the report. His health was described by musicians as fluctuating which impacted on the opportunities for regular music-making interactions

Table 1: Data collection – Medical Notes (2) overview

	Child	Mother	Father	Relative	Nurse	HCA	PW	Other
Annora	x	x			xx		xx	
Billy	x	x	x					
Danial	x	x						
Freddie				x				Ward Manager
Josh		x			xx		x	
Saad					x			Foster Mother

Table 2: Data collection – Songbirds overview

	Child	Mother	Father	Nurse	HCA	PW	Other	Expert Musicians	Specialist Consultant
Asmita		X		X	X		Carer	X	x
Emily		x		X		X	Ward Manager OT	X	x
Lauren		X	X			X	Medical Students	X	x
Lewis		X				X	Carer	X	x
Lily	X		X			X		X	x
Rachael		x				x	Medical students	X	x
Maadi		x		x					x

In addition, a focus group interview was undertaken with four medical students that had selected a Manchester Medical School Music for Health elective Personal Excellence Pathway : Narrative Medicine in Writing, Art and Music as part of their year three educational programme. The two expert musicians delivering the Songbirds project were interviewed as part of the children cases for that element.

Musicians (Cases)

A musician information sheet was also made available to all Music for Health musicians and healthcare staff working with the children by the project lead. All 11 musicians gave consent for members of the research team to observe them during field-work visits and to mine their reflective accounts for observations on their work with the case children and developed analytical framework. They also agreed to participate in 3 digitally recorded focus group interviews. Please see table 3 for overview of musician interviews.

Table 3 Overview of Musicians' Interviews

Interview Date	Experts (n=3)	Supervisor (n=3)	Mentors (n=3)	Apprentices (n=2)
July 14	x	x	x	
Nov 14				x
Feb 15		x	x	x
Sept 15	x	x	x	x

Data Collection

Field work

In excess of 100 hours of field-work observations were undertaken at times agreed with the families and musicians. The field-work observations were used to observe the children's and their parents'/carers' response during and, when possible, after the music-making sessions. In particular, the research team wanted to focus on outcomes (defined as what the researchers or others witnessed as happening) and impact (defined as why this was important to the children or those caring and working with them). Detailed field-notes were written immediately on completion of the field-work visits.

Focused Conversations

Although it was not possible to predict all outcomes for children recruited to the projects, it was important that those identified for individual children and families, especially in the Songbirds project, were articulated. To achieve this, the impressions and evidence gleaned from the field-work observations were used to guide focused conversations to further explore and describe the interviewees' perceptions of the outcomes and impact for their children and themselves. Other members of the family and members of the healthcare team involved in the

children's care were also interviewed.

A raft of engagement strategies was used by the researchers to ensure that children and their families could participate regardless of their communicative ability. These included finger puppets, drawing activities, and asking children to interview their care-givers. When appropriate, and with the permission of their families, these activities were tape-recorded.

Interviews with musicians and healthcare staff focused on the musicians' work with individual children and documented their subjective insights detailing, in particular, the different approaches and decision-making strategies used to ensure that a children-focused approach was maintained.

Blank Space Feedback Post-Cards

These were used to explore and document the experiences of other children that worked with the musicians when researchers were not present.

Focus Group Interviews - Musicians

All Music for Health musicians, each at a different stage of transition to becoming expert Music for Health musicians, participated in focus groups (by level of experience - see table 3, pg. 20). Sequential focus groups with the apprentices, mentors and supervisors were undertaken on three occasions, at the beginning, the middle and the end of newly recruited apprenticeship journeys. These focused on their experiences of transition to becoming expert Music for Health musicians, mentors and supervisors. The expert musicians participated in two focus group interviews concerned with the transition of musicians, one at the start of the research and one towards the end of the project.

The first set of focus groups began by exploring the musicians' reasons and aspirations for entering the Music for Health programme and their insights derived while working on the project. Key topics were identified from each focus group and these were used as the basis for subsequent focus groups interviews. The final focus group interviews concentrated on the musicians' experience of transition and their perceptions of improved mastery in the context of Music for Health in hospital with children.

Trainee musicians were also asked to keep written reflective diaries by the expert musicians and these were made available as data to the research team. This enabled aspects of their work not observed during field-work and their subjective interpretations and meanings to be explored. The research team drew on Lave and Wenger's (1991) work on communities of practice in order to inform the analysis of the musicians' data. This is discussed in more detail in the discussion of findings.

Data Analysis

Consistent with pre-clinical research, the case study approach taken for this research required a qualitative analytical method to enable summary and synthesis while retaining depth within and across the cases. Framework analysis (Ritchie et al 2003) was chosen as the most appropriate means to facilitate

analytical teamwork and the development of a framework or model to best describe what might be going on, during and after music-making sessions, for the children and their families in the Medical Notes (2) and Songbirds projects.

The analysis began with all members of the research team analysing the same 2 interviews independently. They were interested in evidence of outcome and impact by analysing what had seemed most surprising to the interviewee, what was most important and if they thought the outcome would have happened without the music-making session. A meeting was then convened during which the researchers discussed their individual analysis, before working together to derive a consensus to develop agreed prima-facie concepts. These initial concepts were then grouped using concept maps to derive an initial framework. Each case was then subject to inductive analysis by two members of the research team. This iterative process was repeated case by case in each of the projects until all interviews had been subject to inductive analysis. A further two meetings during this phase and the use of concept mapping enabled further development of the analytical framework. There was strong agreement within the research team that all data had been accounted for in the framework and that the categories were stable. This approach enabled the research team to identify outcomes and impacts for individual children and families verified through replication of outcomes across similar cases (please see **case exemplars** presented pages 44 - 47). In turn, this process led to the development of a tentative conceptual model (see Figure 1, page 48).

Following this, three members of the research team used the framework to mine the musicians' reflective diaries for further evidence of impact and outcome from the musicians' perspectives. This ensured that their perspectives on the impact and outcome of their work was included in the data set to provide a comprehensive insight from multiple perspectives.

Synthesis of all data across both projects was then undertaken to derive meaningful outputs. As children, young people and their families often have unique insights that differ from those of healthcare practitioners who share similar experiences, their views are given precedence. However, the findings are presented using illustrative quotes from members of the children's families, hospital staff and musicians, alongside field-note entries, to ensure they are useable by the LIME, RMCH, the musicians and the play staff. We anticipate that this will, at least in part, ensure that the families' views are given prominence and remain central to the recommendations and any subsequent actions taken by the musicians and hospital authorities.

While the findings are presented jointly across both the Medical Notes (2) and Songbirds data sets, comparative verification across cases in each element enabled discernible differences for the children in each project to be highlighted. These are discussed in the findings section of this report. Consideration of the differences has influenced the recommendations for the musicians, the NHS trust and future research endeavours.

The analysis of the musicians' data followed a similar process.

SECTION 4:

Findings 1 – Medical Notes and Songbirds

The findings in this section are organised into categories identified through the framework analysis as follows; *Access - Gatekeepers and Musicality; Empowerment - transforming children's and families' experience; Learning from musicians and children; Connecting; Glimpsing the authentic child and hopefulness*. The final category, Glimpsing the authentic child and Hopefulness, relates to the Songbirds project alone. Figure 4 (pg. 48) presents a pictorial representation of a model of the final analysis of Medical Notes (2) and Songbirds data.

Access - Gatekeepers and Musical Responsiveness

As described in Cavanagh et al., (2012) the musicians had developed a model of working that rested on a '*tentative*' approach such that parents and others could make an informed decision regarding children's engagement rather than pre-judging what would happen without experience of what was involved. This '*inclusive model*' involved beginning with quiet musical introductions; assessing the environment and those in it, before taking their cues from children, parents and carers on how to proceed. However, the musicians' perceived that their ability to do this rested on their ease of access within areas of any given ward or unit and the attitudes of staff towards the music-making

In the Medical Notes (2) project, the apprentices, mentors and supervisors would ask the play specialists if there were any children that they should visit or whether there were any areas on the ward that they should avoid. In this way the play specialists appeared to be the main gatekeepers to the music-making. The play specialists that participated in the study discussed their selection of children, for example, on one ward the play specialist said that for the Medical Notes (2) project they prioritised the '**complex needs children**' as they '**benefitted the most**'. This decision-making was often based on their previous experience and it is worth noting that there was a discernible difference between those staff that had experience of the benefits of music-making for children and those that did not with regard to their positive response. This appeared well understood by all musicians who commented on the need to work with ward-based staff, especially play specialists, in their reflective diaries. Yet access often rested on the perception of gatekeepers regarding the benefit that the music-making could bring to individual children. As noted by one ward manager;

"They always come and speak to us and say, 'who do you think would benefit from us coming to see?' ...You would steer them away from people that need peace and quiet and need darker rooms and things like that to help them stay relaxed..." (Ward Manager).

Yet, these comments were in contrast to the benefits she witnessed for Josh who had cerebral palsy and epilepsy and for whom music acted as an effective relaxant.

“He always seems to relax, because he’s always very tense ... he’s always got his arms very close to his chest and his legs are always tense. He puts his arms down and relaxes, he smiles and he relaxes and he just looks happy whenever they come...” (Ward Manager).

Another ward-manager explained that when the musicians approached her to ask which children might benefit from the music that she would ask the children’s parents whether they thought the music would be appropriate. There was a strong consensus between the musicians that a parent or carers’ response to the offer of the music-making impacted on their children’s response. They understood that a positive reaction from parents was most likely to encourage a positive reaction from their children and vice-versa;

“Nine times out of ten [the child] will refer to the parent before they react to you...” (Expert 2).

Given that families were often tacit gatekeepers to music-making for children, the importance of family members encouraging children was valued by the musicians. They commented on this in their reflective diaries on numerous occasions. For example, parents were described as being ‘**very encouraging**’, sometimes ‘**lifting babies from their cots**’, ‘**shifting babies’ positions on laps**’ or ‘**taking babies back from nurses**’ so that the music could be enjoyed together, as noted by one musician;

‘A baby boy (4 months old) was sitting in mum’s lap. Dad takes him and brings him closer to me. We play/sing ‘Senwa’ and he watches. We then play ‘Basset’ and mum holds him and the nurse removed his cannula. She keeps pointing to me to distract him. Mum hums along to help. Baby smiles a lot and his parents ask about the music. They say it is “beautiful”... Nurse says ‘thank you for helping to distract him’.... (Mentor 1).

It was also evident that some parents persisted with encouragement despite some children’s determination to avoid becoming involved. When this happened the musicians were seen to take the lead from the children as demonstrated by the following excerpt examples from the reflective diaries;

“A boy of 4 puts his fingers in his ears. Mum still tries to get him to listen, boy and mum then move behind the table and chairs, and then further behind the sofa, music continues for one song... (Mentor).

“We go to a single room to play to a 2-year-old boy and his mother. He is perhaps intimidated a little but interested and looks through the instruments and listens for a while but looks to his mum for reassurance regularly. She wants him to engage and she plays along with us. Soon he puts down the instruments decidedly and wanders to the other side of the bed to return to his other toys clearly signalling to us the end of the session for him...” (Supervisor).

However, the expert musicians commented that they did not always seek verbal permission from parents as the initial response may be ‘no’ due to the parents’ uncertainty of what was involved and what to expect. Instead, the musicians had

developed more holistic means of gleaned parental acceptance, such as watching gestures and reading behavioural cues to assess the appropriateness of music.

There was another level of complexity at play. This links to the children's and families' '*musical receptivity*'. An understanding of the children's or families' musical receptivity appeared to rest on the value they accorded to music in their everyday lives, often demonstrated in an open and receptive body language when the musicians became both audible and visible in ward areas. It seemed that those who were actively engaged with music in everyday life were most likely to engage positively with the musicians in the hospital environment. This recognition of valuing music was evident in the interviews with the musicians when they discussed the children and used terms such as:

“they had a strong connection with music”

“she was responsive to us and the family were open to the music’...”
(Expert Musician).

Many of the families concurred and spoke about them or their children being musical. These families stated that their children '*loved music*' and in a number of cases either the parent or child had played a musical instrument. Of the families interviewed, three made specific reference to '*playing music*' or '*singing*' to their babies in utero. Indeed, the majority of the children included in the study were described by their parents as loving music and therefore the families appeared to value music as part of their day-to-day lives. However, given the serendipitous nature of music-making in the Medical Notes (2) project, the parent's love of music was not always known before the session.

“A mum and her 12-month old baby girl who is visually impaired... the mother used to be a professional musician but due to illness could no longer play. She mentioned that she had not had the chance to take her daughter to any live music so this was something quite special...” (Mentor).

One play specialist talked about '*some*' families not appreciating the value of the music-making and purely viewing it as '*entertainment*'. This was counter to her understanding that the children derived therapeutic benefits from the music-making sessions and that the musicians offered something unique to these families that the play specialists '*could not offer*'. However, there was general agreement between the play specialists that that some children were deemed to derive more benefit than others. There appeared to be two processes in operation: benefits achieved by successful navigation through the gatekeeping processes and benefits derived by proxy through the ripple effect of music within a ward.

This was in operation when some children experienced the music spontaneously, by chance, or by proxy, with good effect. For example, if the musicians engaged with a specific child in a bay, the other children in the bay would also experience the music. The musicians described these '*spontaneous meetings*' with satisfaction. For example, their meeting with Lewis was happenstance as they

had been asked to play for a child close to his bay. What appeared to take this meeting forward was his and his parents' response to the music.

'We were just struck by the way that he was almost transfixed by it [the guitar]'. (Expert Musician).

An expert musician commented that they had '***made a point of visiting***' one of the Songbirds children because of his '***strong connection with [the] music***'. On another occasion a musician had written in a reflective account that;

'I think we notice maybe that she was responsive to music but that also her family were very open to us being there as musicians and they felt very comfortable themselves with the music... We seem to have formed a quite strong bond with that family, that music is very important for them as a family...' (Expert).

This suggests that musical receptivity was instrumental in the forming of a relationship with families in both projects. Of note here is the way in which the musicians were seen to be flexible, moving across a wide variety of musical genres in response to the culture of families, for instance being able to share or willing to learn repertoire from different countries according to the families' cultural background. The team had many discussions about the suitability of their repertoire within such an ethnically diverse population, though the less experienced practitioners were, at times, uncertain regarding the appropriateness of music for families from different ethnic backgrounds. This is discussed in more details in the Findings (2) section of this report.

In contrast, the apprentices viewed musical receptivity in a family to be quite challenging. One apprentice reflected on her feelings that these families may be more demanding as they knew more about music, may ask more questions and may '***sometimes want to direct where you're going with it***'. Other examples of where musical receptivity hindered the development of musical interaction in hospital were noted in team members' diaries. For instance a supervisor had reflected on her interaction with one 9-year-old boy;

'He immediately seemed very interested in who we were and what we were doing, and approached us to have a closer look. He said to us that he played the violin at school, and asked if he could have a go at playing the cello. We said that he couldn't play the cello but could have a look at the instruments we had in a bag...I tried to take out the more interesting ones so that he didn't feel patronised, and gave him the clam shaker. He played it a couple of times, but wasn't strong enough to squeeze it to change the pitch, and gave it back, and asked to play the cello again. I tried giving him the frog, and this time tried to demonstrate more clearly how it was played. He tried it for a while, but it clearly wasn't as good as the cello, so he threw the frog on the floor and started to hit the strings on the cello with the stick from the frog. Thankfully, his father had seen him throwing the frog on the floor and came over to stop him from doing anything else...'

Dealing with challenging children is considered further in the findings related to the musicians' transition presented later in the report. However, it is worth noting here that the supervisor involved in this interaction was uncertain how to respond.

Field-work observations were central in highlighting the complexity and tacit nature of gatekeeping around the music-making activities. Often, selection criteria used by healthcare staff were unclear and their perceptions of how and when music was appropriate were contradictory to the musicians' own interpretations of particular situations. It appeared that a family's musical receptivity was thought to influence the way children and families would engage with the music-making and inform their view of the benefits derived from it. It is important to stress however; the musicians may not have had prior knowledge of the family's previous interaction with music. However, it was noted that a family's musical receptivity made it easier to build a rapport and that the musicians were attuned to gauging this through the families' responses. This also appeared to impact on the development of a trusting relationship between the children, their families, healthcare staff and musicians, an important element in working with hospitalised children over time.

As a key aim for both projects was inclusivity and reaching out to all children regardless of capability or competence, it may be beneficial in future work to increase the transparency of the criteria and processes available to enable other staff and or parents to refer children to the musicians. It is possible that some of the musicians were inadvertently 'selecting' the children and the families. In light of this, reviewing the selection criteria and understanding more clearly the tacit rules of gatekeeping within the hospital may lead to music-making being more fairly distributed among hospitalised children. This seems to be of particular importance for the children in the Songbirds project, as they appear to have the most to gain.

Transforming the Hospital Experience

The concept of transforming the hospital experience includes and encapsulates the children, parents, and staff experience, and the surrounding environment.

There was strong agreement that the music-making sessions created a relaxed atmosphere that induced a calmness in both the child and their parents, often leading to the children drifting off to sleep. Sleep could be an intentional and unintentional feature of the music sessions. On occasions staff and parents would search out the musicians for children who were anxious or distressed and described a session as successful when the child relaxed and drifted off to sleep.

"She's calm and relaxed into the music..." (Asmita's Mother).

"...And physio commented it was the most relaxed and calm he'd seen him in all the times he had been to visit him..." (Freddie's Grandfather).

"They just came in; all were very quiet and lulled her off to sleep..." (Rachael's Mother).

The impact was noted to extend beyond the music-making session with the calmed and relaxed state extending for a period of time after the music-making had finished. This is demonstrated below by the mother of a girl in the Songbirds project who reported that;

“After they’ve gone, you know, it’s like for a little while, like oh, this is relaxing...” (Lauren’s Mother).

“He’s actually much more relaxed after the sessions ... more relaxed and calm enables him to be less stiff and in less pain...” (Josh’s Mother).

When the children were relaxed and calm this had a contagious effect on parents with them and staff reporting a reduction of parents’ stress levels and them appearing and feeling more relaxed. This indicates that parents as well as children derived benefit from the music sessions.

“There have been so many times I’ve been so stressedand I do suffer badly with my nerves, and it’s like when they come it’s like ahh, this is just amazing...” (Lauren’s Mother).

“It is relaxing for his mum and dad too...” (Staff Nurse High Dependency Unit).

“Parents’ lips screwed up with anxiety ... and they are not a floppy doll, but the rigidity has gone out of their limbs...” (Play specialist).

It was reported that this contagious, transformative effect was also experienced by proxy by those in the vicinity, whether this be children, parents and/or staff. An example of this was given by Lauren’s mother who stated;

“In my opinion it doesn’t just lift the children and parents, I think the nurses as well...”

This was echoed by a play leader who described;

“I could see smiles and people peeping around plinths and coming from behind walls, and cubicle doors being left ajar so they could hear music...” (Play Specialist).

It was as though the music-making activities transformed the soundscape and the felt environment of the ward. Lily’s father concurred and was noticeably animated when he remarked:

“It’s nice to watch and we can gather around, my wife comes as well and we try and get Lily involved. There are so many buzzers and noises and alarms going off, so a little gentle, soothing music is wonderful...” (Lily’s Father).

The changes in the environment were noted by many of the participants and related to the sounds and/or the atmosphere experienced in a busy ward created

by care activities and the work of care. This was demonstrated in a number of ways. For example, it could be a reduction in the noise levels as expressed by a play worker discussing in the context of the high care areas in which;
“The noise levels always drop by half, guaranteed, every single time...”

The music seemed to change the usual ward sounds as described by Lauren’s father, offering the children respite.

“In such an environment as the hospital with all the beeps and noise, clatters and bangs and conversations everywhere, regardless of the child’s condition I think it gives them a break...” (Lauren’s Father).

What surprised many people was that the music-making reduced the noise in the environments rather than increasing them. The music also caused a change in staff behaviours;

“They are being busy at a slower pace, a more calming pace, so therefore things are not getting as frenetic...” (Play specialist).

An additional finding was that the music sessions created a safe environment for a range of emotional expressions to take place. This could vary from the children and parents expressing happiness, demonstrated by smiles, laughter and vocalisation of sounds, to parents crying, feeling safe to release their emotions. As Lauren’s father recalled;

“When she is playing a fast and lively tune it is smiles and she is happy...she finds the little thrills of the clarinet hysterically funny and will start smiling...” (Lauren’s father).

A play specialist described how Lily was able to become herself during one of the music-making sessions;

“Was a very, very quiet little girl but once she felt safe and secure and she had the freedom to express herself...” (Play Specialist).

A member of staff commented on enjoying the atmosphere and seeing the children enjoy themselves as rewarding for staff also;

“How happy the music makes her [it] has an impact on staff as well because this is what we are here for, to make the patients happy”. (Ward Manager).

Similar observations were noted by play specialists in different clinical areas. In the Songbirds project, Billy’s mother explained how he had been agitated, but became quiet as the musicians played to him, he sat quietly and then he cried. When the music finished he simply said thank you. The expert musicians had reflected on this;

“A boy with ABI who could not speak, cried on hearing the music and said these words, “It’s beautiful...” and later...” It’s so well played”. Mum later told us that she knew her son was ‘coming back’ when she heard him say

this - he has a strong love of music and she felt that the music made a 'deep connection inside' and he had tried to articulate what he felt at the time..." (Diary extract. Expert 3).

Both his mother and father found this very moving but they understood it to be a very positive experience. The play specialists spoke of parents becoming quite emotional. When they went to ask the parents if the musicians should stop they would say ***"no, this is good, it is making me come to terms with things..."***.

The emotional release experienced by parents was welcomed by them. As Rachael's mother noted the music-making ***"[made her] weepy, [but] it is a good weepy"***. There were occasions in which parents described how they had to leave as the moment was so touching. An example of this was Lauren's mother who described a time when her daughter had been recovering from an operation and was ***'so poorly' yet 'couldn't sleep and was becoming so tired'***. The musicians came in and without Lauren mother saying anything they played soothing music.

"it was touching, I had to go out as I was crying – I said 'I can't believe you've literally got her to sleep she's been awake for hours and hours and within five minutes, she's just fast asleep – that was a touching moment...".

The transformation of the soundscape and atmosphere seem to empower parents. It seemed to boost their resilience during difficult times. This was demonstrated by the mother of a boy in the Medical Notes (2) project who was discussing the impact of the long days in hospital that are quite mundane and repetitive.

"It gives us a really big boost really to know that he's actually enjoying some time that he's in hospital ... they are particularly long days and without that to break up the day and able to bring happiness to him, it makes it a lot easier to be in hospital. It's a massive lift..."

For the expert musicians' working on the Songbirds project, transforming the experience of children was fundamental to their work;

"The child has no control over what may or may not happen in terms of necessary medical interventions - it's only with music, and any other form of therapeutic activity, that the child can begin, over time, to understand that the activity is on their terms, will not hurt and can be fun - a release and unconditional..." (Expert Musician).

Working with individual children, over time, was especially important to achieving outcomes and impact for the children in the Songbirds project; it also impacted positively on parents as noted in the interview with the expert musicians;

"It's tailor made to individual patients, so somebody like Lauren, we've built this relationship over time and that does happen in this work [Songbirds] that you often meet children and families where ... it's a luxury in a way of

building that relationship, where you really have quite an affinity, with not only the children but the parents as well...” (Expert Musician).

It seems that if the gatekeepers are more relaxed then the children will be more relaxed too. However, this worked in reverse, as on rare occasions it was the children that became engaged with the music first with their parents following the children’s lead. There was then a dynamic multi-way process of transformation with each party affecting the other. The analysis presented here suggests that engaging the children and transforming aspects of their auditory and relational experiences in hospital was implicated in the children, their parents and other family members feeling empowered. This is discussed in more detail in the next section of the report.

The Empowerment of Children and Families

As noted in the first report (Cavanagh et al., 2012) the musicians were observed to approach the children slowly and respectfully. Eye contact and smiles were exchanged and at an appropriate time a percussion instrument was proffered. Most often the children chose to accept the instrument being offered though they were never witnessed being forced to do so. When they accepted the instrument their further involvement in the music-making activities was facilitated. This often began with the child giving intermittent shakes but as the musicians responded to their interaction, either by repeating the sounds or smiling and encouraging the children, the children’s confidence grew. This often resulted in the children feeling empowered and ‘leading’ the session with their instruments and the musicians following. This was demonstrated in various ways and was written in one of the researcher’s field-notes as:

“Lewis repeatedly threw the shaker out of his cot; when the musicians responded with sound effects of the shaker falling and landing with a bump; he was delighted and grinned. He then repeated the interaction. After a while he tired of the game and lay quietly, the musicians slowed the music and touch was minimised to tapping his fingers. He had controlled both his level of participation and the duration of the session...” (Field Notes Researcher).

Another example was noted with Annora, from the Medical Notes (2) project:

“When the musicians came in to the bay she was laying quietly on the bed with her mum. The musicians approached slowly and she took the instrument offered and began shaking. After a while she sat up with great gusto, took two shakers and the whole session increased in pace and tempo. (Field Notes Researcher).

As in the previous example, Annora led the session and then showed signs of tiredness and the music quietened and slowed. Once again she had been empowered to make choices regarding her participation in the music. The musicians demonstrated sensitivity and a heightened awareness of her changing state. Her mother commented on this during the interview following the music-making:

'they took the lead from the child really, which was nice' (Annora Mother).

A nurse that had been present at this session was asked to describe the music-making, she described the 'gentle' and 'slow' approach of the musicians to the child and then noted that ***'they stand well back and let the children take the control really of what they want' (Annora Nurse)*** which is something nurses can seldom do. When asked about the musicians' interaction with Annora, the nurse agreed with her mother by commenting that:

'they fed off her really... they took the lead from her...'

During other sessions it was observed that the musicians responded to the children's lead in both pace and/or tone of the music played. The musicians discussed this and acknowledged that this was intentional. When reflecting on the session with Lewis, an expert musician said:

'He was directing it... we were following him...' (Expert Musician).

The expert musicians also explained that they had noted a pattern in the children's behaviour towards them and the music when working with children over a sustained period of time, involving a number of sessions:

'There is a pattern; initial wariness... gains confidence over time... 'in charge of everything...' (Expert Musician).

Initial wariness to the presence of strangers was also recorded by one researcher who approached a child's cubicle ahead of the musicians;

'The child's face and body language suggested a clear pleasure at seeing the musicians. This was in clear contrast to the presence of the researcher whose presence triggered a look of fear and trepidation...' (Field Notes Researcher).

It became apparent during this study that some of the children that had been in hospital for lengthy periods of time had developed a suspicion of strangers; not uncommon and understandable considering the exposure to many painful and distressing procedures which they frequently undergo. However, in their interactions with the musicians they appeared to learn that what was offered was different. This was evident in observations of Saad's reaction to an impromptu music-making session with the Medical Notes (2) musicians;

'Saad is in isolation, but the staff nurse is very keen that the musicians work with him and throws the door open. As these music-making sessions were taking place during a festival at the hospital, a story-teller had joined the musicians. This meant they were a group of 5 (I stay out of sight). Saad is playing on the floor with his carer. He has a light box that is attracting his attention. As the musicians approach he seems wary, but points to the side of his chest. The staff nurse repeatedly states, quietly, that he thinks the musicians are medical staff, they are not in uniform but all have lanyards visible. He keeps turning to his carer for reassurance, hiding his head in her side. He slowly starts to engage. The story teller works with the music using hand gestures and he joins in...' (Field Notes Researcher).

The staff nurse later explained that he had endured many painful procedures, had very limited verbal communication, but was always passively compliant with treatment. His only expression of dissent was to say 'ow!' She was convinced that he initially thought the musicians were doctors and that they would be 'needling' his port-a-cath. However, his initial wariness was quickly assuaged as the musicians used gestures and the pace of the music to engage him. The session finished with his carer stating that he was very excited and that he had enjoyed the music enormously.

Children were sometimes observed as being able to make a distinction between having things done to them and having a sense of agency (self-determination). One of the parents whose child was in the Songbirds project noted:
'they don't just play music, they let you play music...' (Lily's mother).

Trainee musicians were conscious of their intention to be child-centred and to give children the opportunity to lead/direct/control an activity in order to empower them. One of the Medical Notes Supervisors observed that:
'it's a reversal of roles and suddenly the child's got power... Some of these children rarely had any control or power in their lives... and suddenly they could control something, just by shaking something, that's a massive empowerment for them'. (Supervisor).

For the expert musicians, empowerment was brought about by learning the 'language' of the children in the Songbirds project. This also signalled a major development for the children, a key aim of the Songbirds project:
"The language of the child has become part of our language, and we share in it and celebrate it though our musical meetings with the children (Expert Musician).

This was evident in the entry made in the experts' reflective diary;
"One young boy who is the most complex child we have ever worked with, began to have a conversation by opening his mouth and gently 'popping' - it was a breakthrough for us as we felt he was really wanting to have a conversation as we copied him and returned our responses, accompanied by the guitar playing his tune – a tune we had composed for him for our visits. We have noticed with this child too that dad had originally gone from not really seeing the point of any interaction to filming us on his mobile phone to show family members and telling us about his own love of guitar – his confidence in what his child could do had also increased over time and we feel that the musical interactions we had with his son have helped this process." (Expert Musicians).

The music-making actives therefore provided some parents with the evidence they sought to strengthen their claims of what their children could achieve, and demonstrate that their children were so much more than their diagnostic label. It was apparent in the Songbirds project that the children developed a relationship with the musicians which was similar to that described in the literature as therapeutic or connected. This relationship appeared to empower the children, not least in giving them moments of control in an environment in which they had

little power to effect what was happening to them. Being allowed to control and lead the music-making seemed to be in sharp contrast to their other experiences of hospital. In turn, being empowered enabled children to reveal something of themselves previously unseen or lost since injury or illness.

“Later on we ended up playing by her bed as she had some physio/OT treatment - and made eye contact several times - the OT also commented that her communication during this session was the best she had seen in this session...” (Expert Musician).

Being empowered also helped healthcare staff and the children’s parents and carers to learn from them and how the musicians worked. This is explained in the next section.

Learning from Children and the Music Makers

There were a number of examples demonstrating that the approach of the musicians and what they achieved with the children and sometimes families provided useful learning for healthcare staff and parents. This was especially the case when the musicians worked with children that had limited communicative skills where staff and parents reported being inspired to use alternative approaches.

An elective four-week Music for Health - Personal Excellence Pathway (PEP) Narrative Medicine in Writing, Art and Music module for third year medical students was taking place during the fieldwork observations. The medical students reported on the extensive learning that they derived during their placement with the musicians. They explained that they had chosen this elective module as a space in which they could connect with creativity as they had little chance to engage in artistic activities. It was the first children’s placement these students had experienced and all of them had been a little anxious about approaching children. They had been told how to walk, how to stand and where to stand with one student being told to always stand at the right hand side of the children’s beds.

They expressed concern for the children and wonder at the length of time some children spent in hospital with no respite. They all agreed that watching the musicians approach the children helped them to understand what was possible when trying to communicate and engage children. As one noted;

“I just feel more confident approaching children and playing music...I have just learned to deal with children a lot better...how things can change suddenly, especially with children...” (Medical Student).

Music-making and the approach taken by the musicians to engage the children had become an important influence on their considerations of hospital hierarchies and bedside manner. There were plenty of other examples. One mother had made shakers to play with her child when the musicians were not there. A play

specialist explained that she tried to elicit similar responses to the musicians from one of the children in the SONGBIRD project and that she had used the observations of what the musicians had done to engage the child to enhance her own role and practice. A care worker employed to work with one of the children with complex needs explained that observing the musicians had;
“Given her ideas of things to do to stimulate Asmita...”.

A ward manager explained that the nurses and occupational therapists on one ward had learned to use music shakers as part of an occupational and physiotherapy programme to strengthen Asmita’s muscles and encourage ‘*fine motor movements*’. It was clear that the benefits for children, not least were their development and rehabilitation needs enhanced through the music-making activities but by staff adopting the strategies they learned from the musicians. A number of staff and parents explained how they followed the musicians’ lead and tried using different timbres (qualities of sound) and pitches (notes) when making music to elicit a ‘best response’ from a child. For example, one of the Expert Songbirds musicians had explained that he altered the key to see if it would elicit a different response from the children:

‘It’s something I always bear in mind – why did I change key? I would try different things...’ (Expert Musician 2).

The Songbirds play specialist described how they had learned from observing this technique of trying different things with Lewis and Emily;

‘I observe when they are working, to see if they get a response that I couldn’t get’ (Songbirds Play Specialist)

He went on to explain that he now understood that each child responded best to a particular timbre/pitch and that he had gained insight into which were the most effective. Consequently, by adjusting the particular quality and/or range of his voice when singing or reading he had been able to elicit what he described as the best response from these children.

There was also evidence that learning from the Songbirds musicians crossed the boundary between home and the hospital - an important aspect of delivering child and family-centred care. However, the parents would comment on using the resources provided by the musicians (such as recorded music) with their children at home with great success. This may prove especially important for children described as medically fragile that are repeatedly admitted to hospital in that they and their may benefit from the success of music-making in hospital, at home.

It is also possible that the music-making activity encouraged shared-decision making through the introduction of techniques that were novel in how they managed to engage the children and the family. As a member of staff noted:
“There’s a good relationship [and] we can learn from them [families and musicians] what’s important and helpful to the children through working with the family...”

Pivotal to this was that it was the children, rather than their diagnosis, that remained at the centre of the interaction. As demonstrated by Lewis’ mother:

'Being in hospital is a lonely place' the musicians remember Lewis every time 'who he is rather than what he's got...'

The importance of this was explained by one of the expert musicians who knew that some healthcare staff came to see another side to the children that would not have been visible without the music-making sessions. For example, one expert musician noted that the music-making had enabled the nurse caring for one child to;

"see another side of child that maybe they wouldn't have seen ..."

Rachael's mother talked about a significant achievement brought about by music-making for her daughter;

"She had to cross the midline with her right hand which she had never done and she has maintained that since..." (Rachael's Mother).

This evidence of an important outcome of the music-making for Rachael had an enduring impact on her and her mother. Rachael attended a special school and the staff there had been working with her to encourage her to move her right hand, but she never had. Seeing her daughter do this for the first time mattered a great deal to her mother and family.

Learning from music-making with children led to outcomes which had a lasting impact for many of the parents. The '**normalising**' interactions with their children and parental involvement helped to reduce the family's boredom with the daily hospital routine. Soothing, repetitive sounds reduced the felt chaos of the environment, alleviated distress, and provided a diversion from treatments. It also provided fun, laughter, reassurance and enabled a catharsis of emotions. Central to this was the therapeutic nature of the relationship between the musicians and the children. In turn, this led to the development and strengthening of connections between the children, their family and other family members. However, the learning was not one directional as noted by one of the expert musicians;

'There's a good relationship in terms of we can learn from them what's important and helpful to the child through that kind of working with the family...' (Expert Musician).

Connecting

A dominant concept that was derived from the analysis was that of connecting. This could consist of the connection between the musicians and the children and/or their parents, and a connection between the children and the hospital staff. This was evident in both the Medical Notes (2) and Songbirds projects. However, for those children in the Songbirds project these connections were deeper and appeared to foster meaningful and trusting relationships between the musicians and families and between musicians and staff. They seemed to lead to significant events for the children and their parents. The parents of children in the Songbirds project talked about '*seeing*' their child. By this they meant the child they knew before the injury or illness or the child they could see in the future. We interpreted this as them glimpsing their 'authentic child'. In turn, this led to

feelings of hope, and some parents seemed to derive reassurance from this. An example of this reported by Lily's father;

"when the musicians worked with (Lily) it was like she was going back to her old self before the injury..."

The parents and staff repeatedly reported that the children would recognise, be energised and be happy when the musicians were approaching. This was determined by reports of the children smiling, trying to sit up to view the musicians and them making happy or positive vocalisations. For example, a member of nursing staff reported that Emily's;

"face glows when the musicians come onto the ward area and she knows it is her turn..."

Josh's Mother described her son's reaction to seeing the musicians:

"As soon as they walk through door he knows what's coming and smiles..."

This was supported by a member of nursing staff interviewed about the same child (Josh) discussing whether he recognised the musicians, they used the metaphor of 'lighting up' as did other parents and staff:

"His face lighting up, he lights up..."

The music-making sessions also offered staff the opportunity to create connections with the children either by being involved with the session or talking to the children afterwards about the music. The shared experience of music-making presented opportunities for conversations about an experience that the children enjoyed. Staff commented on the importance of this and the joy they derived from it:

"Associated with social (positive) experience rather than clinical (negative) one" (Senior Nurse?).

The hospital journey for children described as medically fragile is seldom linear. They experience ebbs and flows with setbacks along the way. The musicians became acutely aware of this. The musicians recognised that the music-making sessions could be used as an indicator not only progression, but of wellbeing, and how both were intrinsically linked to the complex health situation of the children. It had been reported by Lauren's mother that when her daughter failed to respond in her usual positive way to the musicians her response was used to indicate a deterioration in her condition. This was acted on by staff on several occasions.

When a child was feeling well, they often engaged more readily with music making. If they were placed in isolation their confidence and trust in engaging with the outside world (anything from outside their cubicle) could diminish as the fear of potential medical procedure and intervention increased, highlighting the effects of the related trauma. Being young, the children were unable to comprehend their isolation within a cubicle and did not always understand the imposition of restrictions. This was evidenced by Saad, who, as noted earlier,

repeatedly pointed to the needling access point of his port-a-cath as he thought the musicians were doctors.

At times, the development of trust and a connection with the children was hampered by children's deterioration, their need to be isolated or them spending time at home in readiness for their discharge:

"We feel our visit to M has not really been consistent enough to get to know him, because his health has not been consistent..." (Expert Musician).

"He has been in isolation (L) so we have not been able to enter his room..." (Expert Musician).

"As the children start to prepare to go home, their stay in hospital comes more interrupted..." (Expert Musicians).

However, it became apparent that where trust and rapport had been built up with particular children, due to their long-term stay and involvement with the musicians over time, that despite times of deterioration in their health, they still presented with a readiness to join in, but perhaps in a reduced form such as a shorter period due to fatigue or the need for more reliance on breathing equipment than when 'well'. This was evident in children turning towards and waving at the musicians when they approached the doorway of their cubicle. Other examples included them smiling, making eye contact, turning their heads and reaching out for instruments, holding on to instruments to join in, hand clapping and mirroring of gestures, such as blowing kisses, bouncing up and down to the beat of the music, and crawling to the doorway to try and get to the musicians. These signs indicated to the musicians an increased level of confidence, independence, motivation and self-assurance and engagement with the music making. It was felt in instances where a child had suffered a set-back that the music making provided continuity for both patients and families, at a time of greater stress and anxiety.

It was evident that a sense of trust existed between all involved in the music sessions with parents reporting that they were happy to leave their children whilst the musicians were present. Developing a trusting relationship with hospitalised children is fraught with difficulty and parents often report concern for theirs and others' unaccompanied children. Yet the musicians in both the Songbirds and Medical Notes (2) projects were acknowledged as trusted members of the hospital community, as noted by Josh's mother who stated that:

"I feel comfortable to be able to leave whilst he's having music – definitely wouldn't feel anxious to have to step away..."

An important element of this trust was the parents' understanding and appreciation that the musicians genuinely cared about how they made the children feel, and were able to interpret the children's non-verbal and verbal communication and adapt their sessions to the children's responses and interactions:

"They pick up on it straight away and change it..." (Josh's Mother).

"The biggest thing they do is they respond to her..." (Rachael's Mother).

This adaptation of the sessions to the in-the-moment needs of the children seemed to be experienced as deeply humanising. Through the music-making the musicians communicated and created interactions and connections often in a gentle manner to which both parents and children could respond. A parent describing a music making session on the ward discussed that:

“It was really nice how they got the children really involved but in a very non-intrusive way...” (Annora Mother).

The grandfather of Freddie who had repeated admissions to hospital discussed how:

“They were relying on the music I think to capture his interest rather than themselves”.

It was apparent that the musicians perceived connections with the children and families to be important:

“I am happy it's Lewis as I feel sad that we had lost a connection with him...” (Expert Musician).

This indicates both an attachment and an investment in the musicians' relationship with the children. When discussing another Songbirds family, the same musician observed that:

“We seem to have formed quite a strong bond with that family, once again emphasising the importance of the relationship...” (Expert Musician).

There are a number of influences on the development of the connection between the families and the musicians. The part played by gate-keepers was explored earlier, here we note the difference between gate-keeping as allowing access, and connecting – going the extra mile. Just as the parents were implicated in the gate-keeping role, they were also implicated in the development of connecting relationships:

“Sometimes if you have a parent, say like Lauren's dad, who almost welcomes you with open arms, you immediately well... the parent might really want the music but it might not be right time for the child. But there's a sense of it feels comfortable; if that's not there it's much more about us taking time to build a relationship...” (Expert Musician).

This exemplifies the complexity involved in forming a connection and that the relationship with both the children and their parents is important. It would appear that there is a conscious awareness of building the relationship with the children and, as discussed in the gatekeeping section, that the parents could promote or inhibit this process. The issue of connecting with the children is important as it can help the musicians and the carers to know the children in a different way. Added to this, the music-making is thought to help parents re-connect with their children, as one mentor observed:

“Something that I've been thinking about a lot recently ... is that the music can bring a connection or a reconnection between the family and the child...”

In the Songbirds project, an occupational therapist working with Emily had noted that the music-making session had provided an experience through which Emily, her sister and her parents could connect and bond:

‘Emily is living here and her sister is living at home. It is nice to see them all engaged. We could watch and see the family engage and bond with each other...’ (Occupational Therapist).

She was sure that this had offered an opportunity for the sister to connect and bond and this was important as the sisters’ opportunities for shared experiences was so limited.

The replication of data between the cases supported the contention that the musicians’ approach to the music-making engendered a connectedness between the children, their families, staff and the musicians. However, this was especially evident in the Songbirds project. The development of connectedness was associated with working with the children over time. This was illustrated by Danial who was admitted once a week for intravenous treatment had developed little connection with the musicians as he explained:

“They could come and play even if am asleep, they wouldn’t wake me...”.

Danial’s relationship with the musicians stood in stark contrast to the children that were not only eager but pleased to see the musicians. This was important, especially for children unable to verbally engage with those beyond members of their family as the music-making provided a means of emotional communication with others.

Glimpsing the Authentic Child and Hopefulness

An important finding from the analysis was that the data from the SONGBIRDS project strongly supported the notion that repeated music-making with children in that project lead to feelings of hopefulness in relation to the children’s future for both staff and parents. This was not apparent in the Medical Notes (2) data.

Many of the children and families in the SONGBIRD project were living through long-term, traumatic challenges to their health and wellbeing. The prolonged nature of their inpatient experience often created an experience of family life which was far removed from the parameters of what they expected and hoped for. It was not uncommon for children to have spent many months in hospital; sometimes children had lived their whole lives as an inpatient:

“My son has an infection and is confined to this room, sitting in this room 9 hours a day, sends us all a little crazy to be honest’.. He has never been home...” (Lewis Mother).

A specialist consultant explained the view that children that encountered illnesses that affected their brain and spinal cord would endure a pathway in life that would involve a great deal of ***‘grief and hardship’***.

“A lot of suffering’ with ‘emotional grief and coming to terms with their situation ... a long journey...” (Specialist Medical Consultant Children with Acquired Brain Injury).

She reported that the music-making delivered by the Songbirds musicians created '**a light in the darkness of the lived experience**'. It was as though there was a tacit understanding of light as symbolic of the impact that music-making had on the children. It also providing a backdrop to frame individual experiences that had collective meaning for the families living in these circumstances. However, as parents struggled to fathom who their child was or who their child might become, the term light became synonymous with a feeling of hope and being hopeful.

For some families, hopefulness related to a realisation that their children could achieve something that had not been realised before. As one play specialist noted:

'I noticed the frustration that she (Lily) couldn't use both of her hands anymore but then then realisation came in her that she can still contribute, she can still do it...'

In keeping with the earlier discussion related to musical receptiveness, Lily had shown musical talent before her injury. Seeing her being able to participate again was clearly exciting and energising for her and her family; a thread of hopefulness. Other children had similar experiences. During one episode of fieldwork Emily was observed engaged in music-making and the researcher had noted;

"I could see that although her gross and fine motor skills were greatly restricted, she bobbed her head in perfect rhythm throughout the music session, generating a sense of hopefulness; giving the child and family great pleasure as well as benefitting the child's muscle tone and development..." (Field Note Researcher).

Elsewhere a play specialist talked about how his relationship with Lily used music to offer hope:

'She had experienced such a downfall, the carpet taken from under her. With music, I could put a secure base under her... now you are getting better, not just medically but in every aspect of your life...' (Play Specialist).

The joy and hopefulness that the musicians offered permeated into the parent and staff experiences of caring for such vulnerable children. Lewis's mother described the pleasure that the music-making had brought to her and her son; **'The music-making was emotional, he has been fighting for so long, the music came and he could just enjoy it. He's not had a lot of enjoyment. It makes me happy to see him happy... (Lewis' Mother).**

For another parent, the sight of his child sitting at the window playing on a keyboard was a hugely significant moment. His daughter's acquired brain injury had devastated the family. The experience of seeing her engaged in an everyday activity left him feeling hopeful for the future in being able to attain something of a 'normal' way of living; albeit a different normality.

This was not lost on the expert musicians working with the SONGBIRD's children:

“So quite often when the child is very poorly or has been in [hospital] for a long time it's very difficult for the parents ...because they haven't seen them acting like a child for a long time...they're just listless in bed.

So then, if the music gets the child to react and suddenly you see the parent looking at the child thinking that's...you know, that's my child... And that is very, very amazing when that happens...’ (Expert Musician).

The ability to work with children such that their response enables them to reveal something of their previous or future selves appears to be founded on a deep connection between them and the musicians. It seems that providing an experience that can be shared mutually releases an energy which permeates and enables the connection between all involved. This aspect of the Songbirds project seemed to rest on the ability to work with children over time, creating longer term and meaningful connected relationships. In turn this appeared to generate hope in families enduring difficult and challenging experiences.

‘It was lovely to see a vital person emerge. When children start to get better, you can see it in the way they assert themselves in the session...’ (Expert musician).

The impact of the music over time was also understood by many participants to be a normalising experience. As noted by one ward manager;
The music-making offers children experiencing long-term hospitalisation experiences they would never have had. (Ward Manager).

This was underlined by Maadi’s mother when she said:

“It makes me feel more ‘normal’. It gives me pleasure to watch my son enjoy quality time...”

Maadi’s mother began to cry as she said this. It was as though the music-making provided precious moments of normal family time in the very strange context of a hospital ward environment. The experience helped her to connect with her son who was enduring an extraordinary challenge. Another mother concurred
“I can see the difference in my daughter. Through the music-making, they may be small, but they are there...” (Asmita’s mother).

The musicians also discussed the benefits of the music-making giving the parents a glimpse of their ‘normal child’ when the music has elicited a response that they may not have witnessed for a while or before. This was demonstrated in this diary excerpt:

“Sometimes it’s just seeing your child react, I suppose, in a normal way...’ This may evoke a response of recognition: ‘that’s my child...” (Expert Musician).

As noted earlier, the music-making sessions could evoke a powerful response. The mentors commented that the number of parents who had cried during music had surprised them. They noted that they could not presume what parents were feeling but that it seemed to offer the parents a space in which they could find a ‘release’. The supervisor musicians concluded that the music-making provided a

means of parents seeing the children for who they were rather than a diagnostic label. In other words, the music-making provided a means for the parents to be reminded of their authentic child.

They went on to give an example of a baby laughing at the sound of the cello and the father commenting that they had never seen the baby laugh before, apparently the father was completely overcome by this. The musicians noted the strong emotional responses evoked by the music, which were at times, unexpected and surprising. There were many examples of utter delight that parents and some staff gleaned from the small achievements witnessed during the music-making activities. Seeing a daughter enjoying a keyboard, seeing a daughter use her arm for the first time since her injury, or simply taking the time to enjoy a music activity offered families an opportunity for hopefulness in their child's rehabilitation.

“Children like Lewis can miss a lot of normal experiences like music, and he really enjoys it...” (Play Specialist).

It was evident that the musicians were aware of this as a potential benefit of the music-making. Following the interaction with Lewis, the musicians commented that they had seen:

“This whole other side of him came out today...” (Expert Musician).

And

“It was lovely to really see the person...” (Expert Musician).

This demonstrates that the musicians consider that through the process of music-making the child will demonstrate skills or potential that may otherwise be unnoticed. Other benefits of the music-making were discussed in the ‘transforming’ section. What is different here is that the delivery of longer-term, specialised music-making residencies, such as Songbirds, enable parents to recalibrate their relationships with their children. While these achievements may be simple, for example a child smiling for the first time, they have tremendous significance for the parents, especially if it is the first time or the first time in a while that this is seen.

The exemplars that follow illustrate the themes as they relate to individual children. The conceptual model, (please see pg. 48) is a figurative representation of the themes as they link with the two projects. For now, the model is tentative and it requires further elaboration and testing in future bedside music-making practice with children in hospital. However, it presents other musicians and researchers with a starting point for further research work.

Case Exemplar 1: Lewis Songbirds

Lewis

The experts recalled meeting Lewis by chance, they had been asked to visit a two bedded bay in HDU and play for another child. What struck them about Lewis was the way the he was 'transfixed by the guitar'. Following this, Lewis's mum told the musicians that his father played the guitar, when she was pregnant with him. The musicians said 'that clicked into place that there's obviously a reason why he'd had this strong connection that we'd noticed. So we tried to make a point of going to see him on the ward because of the story we were told and because of our experience with him.' This provides an example of how these two factors, the child's response to the music and the families 'musicality' were influential on the development of an on-going relationship with Lewis. The relationship developed over a period of months despite access being limited at times due to infection control. **[Gatekeeping and Music Receptivity]**

Despite these physical limitations, the relationship appears to be beneficial to all involved; the child, the mother and the musicians. The musicians recorded in their notes L's positive responses as follows: 'Despite being so isolated this little boy, we learnt, was immensely sociable, and responded to our visits with smiles, head turning, lifting hands and waving to the music, and playing percussion with support and independently' (extract from musicians notes). It was evident that he enjoyed the music sessions and these were observed by the researcher on several occasions. These music-making sessions were conducted with one musician at the child's bedside and one at the door of the cubicle.

During one of these sessions L played a game with the musicians of throwing the shaker to the floor. He did this with great delight and the little boy who had been lying quietly in his cot facing away from the door, was transformed to an animated child with a cheeky grin. He appeared to have great enjoyment from this interaction and when he tired the musicians gently withdrew. During the session L was leading and had some degree of control over what was happening. The musicians discussed this and acknowledged that they like to allow the children to lead.

[Empowerment]

What was interesting to note was the comments made by a play specialist when discussing the music-making in relation to the Songbirds children. They described observing the sessions in order to learn which interactions may elicit 'best response'. In particular they noted that simply changing the pitch or tone of the music may influence the child's response. As discussed, Lewis engaged particularly well with the guitar and preferred a medium tone. The play worker described adapting this when interacting with L and deepening the tone of their voice whilst singing or reading stories. In this way it is demonstrated how the multi-disciplinary team can learn from the musicians by observing the children and their responses to the music-making. **[Learning]**

The mother also seemed to value the musicians' visits and described how monotonous the ward routine can become. She appreciated the contact and importantly described how the musicians knew L for 'who he was not what he had'. This was clearly an important distinction when coming in to contact with numerous professionals who are more 'transient'. It was clear that the musicians also valued their relationship with Lewis - they concluded their interview by saying that they were happy that L was included as 'we kind of felt a bit sad that we hadn't been able to see him as much and we felt we lost a connection with him'. Indicating the importance of having a 'connection' in the on-going relationship. **[Connecting]**

This case exemplar clearly demonstrates the themes of gatekeeping, access and musicality, empowerment and transforming, learning from the musicians and the importance of connecting.

Case Exemplar 2: Lauren Songbirds

Lauren

Lauren has had an on-going relationship with the musicians, since she was a baby and she is now nearly 4 years old. Dad described how initially, he thought 'it was a bit weird' having music-making in the hospital setting. However, when he saw Lauren's reaction he soon appreciated that the music was 'really good'. Both parents made links to 'musicality' and described playing music to Lauren in utero and eliciting a lively response of kicking and movement. **[Musicality]**

Lauren's mum felt that the music had a big impact on Lauren. Mum says that there are certain sounds she doesn't like, this was seen during the interview when Lauren visibly grimaced in response to a door scraping. Mum said that the music 'livens her up if she is down or upset'. She went on to describe one occasion when Lauren was very poorly and hadn't slept. She went on to say: '[The musicians] they came in, without me saying anything, they looked at Lauren, they can read Lauren and they know what to play and they played something soothing and she was asleep. I was crying because it was a touching moment, I couldn't believe she had actually gone to sleep.' It would seem that the music-making had a significant impact on both Lauren and her mum's well-being. **[Transforming]**

It was evident that the family felt that they had a trusting relationship with the musicians, Dad commented that 'the more they came the more Lauren enjoyed it'. It was clear that the family valued this relationship and enjoyed a good rapport with the musicians. So much so that the play worker told us that the parents asked for the musicians on admission. Mum added 'they know Lauren and know how to use the music with her', this is evidenced by the example given by mum above. In addition, she described how Lauren's face lit up when she hears the music and she looks round for them. She told us that the musicians observe the children and adjust the music-making accordingly. Dad added that they were able to adapt the music mid-tune depending upon Lauren's reaction. Dad said: 'Because the expert knows her now', she will play a couple of lively songs and then a calming one, 'it has a really good effect on her'. Dad told me that they are that comfortable with the musicians that they will go and 'get a brew' whilst they are there. Lauren's mum describes the music-making as more than simply the music, 'it's more personal' she said. It would appear that the relationship is an important factor in the effectiveness of the music. The nature of their relationship is captured in the musicians' notes who describe Lauren as 'a long standing musical friend' and they record that they have developed a strong relationship with the family. **[Connecting]**

Of particular interest is that knowing how Lauren usually reacted to the music was critical when she did not respond typically. Mum described how the previous day Lauren had been unwell and had not responded to the music-making, this resulted in mum crying as she recognised how poorly Lauren was. Ultimately, she shared her concerns with the medical team and this resulted in surgical intervention which improved Lauren's condition. This demonstrates the value of the on-going relationship of the music-making and the shared understanding of the child's responses to the music. In this case, the lack of a 'typical' response acted as an early indicator that something was wrong with the child. **[Learning]**

This case exemplar clearly demonstrates the themes of musicality, transforming, learning from the musicians and once again the importance of connecting.

Case Exemplar 3: Annora Medical Notes (2)

In contrast with the Songbirds' cases described above, Annora is a regular attendee to the hospital. She requires a weekly infusion which takes the whole day to complete. Mum told me that one side effect of this medication was that Annora became lethargic and had a headache. When the musicians arrived Annora was complaining of these side effects and was lying on her bed cuddled with her mother.

Following the session both mum and Annora were interviewed. Mum told me that because she had been a little worried how Annora would respond to the music. However, when she heard the music her face lit up because she does like music. Mum described her as a 'musical person' and told me that she sang. Therefore, whilst 'musicality' may not have influenced their access to the music-making, it appeared to influence their engagement with the musicians, and perhaps their appreciation of it. **[Musicality]**

Whilst she had seen the musicians previously she had not seen them for several months and did not have the relationship described in other cases. Nevertheless, the music-making had a very positive impact on her mood and activity levels. She lay quietly listening to the music for the first song, and when the musicians approached her she accepted the percussion instrument offered. However, she suddenly sat up and took a second shaker and began to shake vigorously. The musicians immediately responded to this change in tempo and echoed her rhythm and notes. In this way Annora was now 'leading' the music-making and the musicians followed. Mum commented that it was really nice that the musicians took the lead from the child. **[Transforming & Empowerment]**

This case demonstrates that whilst the regular attenders may not develop the 'connection' which the songbird children develop with the musicians there are clearly benefits for these children. In particular, the music transformed the experience of Annora's hospital visit and empowered her to take control of a situation.

This case demonstrates that whilst the regular attenders may not develop the 'connection' which the songbird children develop with the musicians there are clearly benefits for these children. In particular, the music transformed the experience of Annora's hospital visit and empowered her to take control of a situation

Case Exemplar 4: Lily Songbirds

We first met Lily and her family when she had recently been admitted to hospital – the family's world had just been turned upside down and the stress and emotional upset all the family were experiencing were plain to see. However, in amongst all her difficulties, mum very positively allowed us to spend time with her daughter, allowing her to experience the music we played and enabling us to get to know her child through music.

[Connecting]

Due to her illness, it took time to learn to read and understand this little girl. Her mum too was faced with learning to get to know her daughter all over again, but with the added complexity of having to experience this all within the public domain of the hospital setting.

At times it was clear to see the frustration and upset mum was feeling, during one visit asking us 'Why does my daughter cry after she has been laughing?', and said with tears in her eyes, desperately wanting to know the answer.

[Need for transitional re-focusing from difficult present to a positive future]

As musicians we were not qualified to give that answer. What we were able to give was a moment of relief through music-making that gave mum and her daughter a moment together when they could just be together, and allow the music to take the strain of the situation on that day. We sat by both and sang a song, along with our students, who alternated between singing and playing percussion, as directed by us. It became clear as we repeated our musical structure that she was taking note of the changes in sound when they happened; she began to open her mouth and stick her tongue out... 'She's enjoying this,' mum said. 'She does this when she's happy'. The mood had calmed from tears and worries to quiet and space. At the end mum said: 'Thank you.'

[Transforming the Hospital Experience]

The joy felt by us all as a clear connection is made between the little girl and the music she is hearing. The little girl consistently vocalises during the music and seems to be aware of when her vocalisation is imitated. For most of the interaction mum was watching with the play specialist, just near the foot of the bed. At one point she said, 'Are you singing, for her?' The words spoke volumes to us – no longer does mum *not* understand her daughter – she fully understands her intention, and more importantly, recognises the daughter that she has always had, and always known.

[Hopefulness. Something desired may]

The little girl and mum dance together, holding hands over the bedside

[Glimpsing the Authentic Child]

This case demonstrates the steps involved in developing trust, connecting and enabling hope

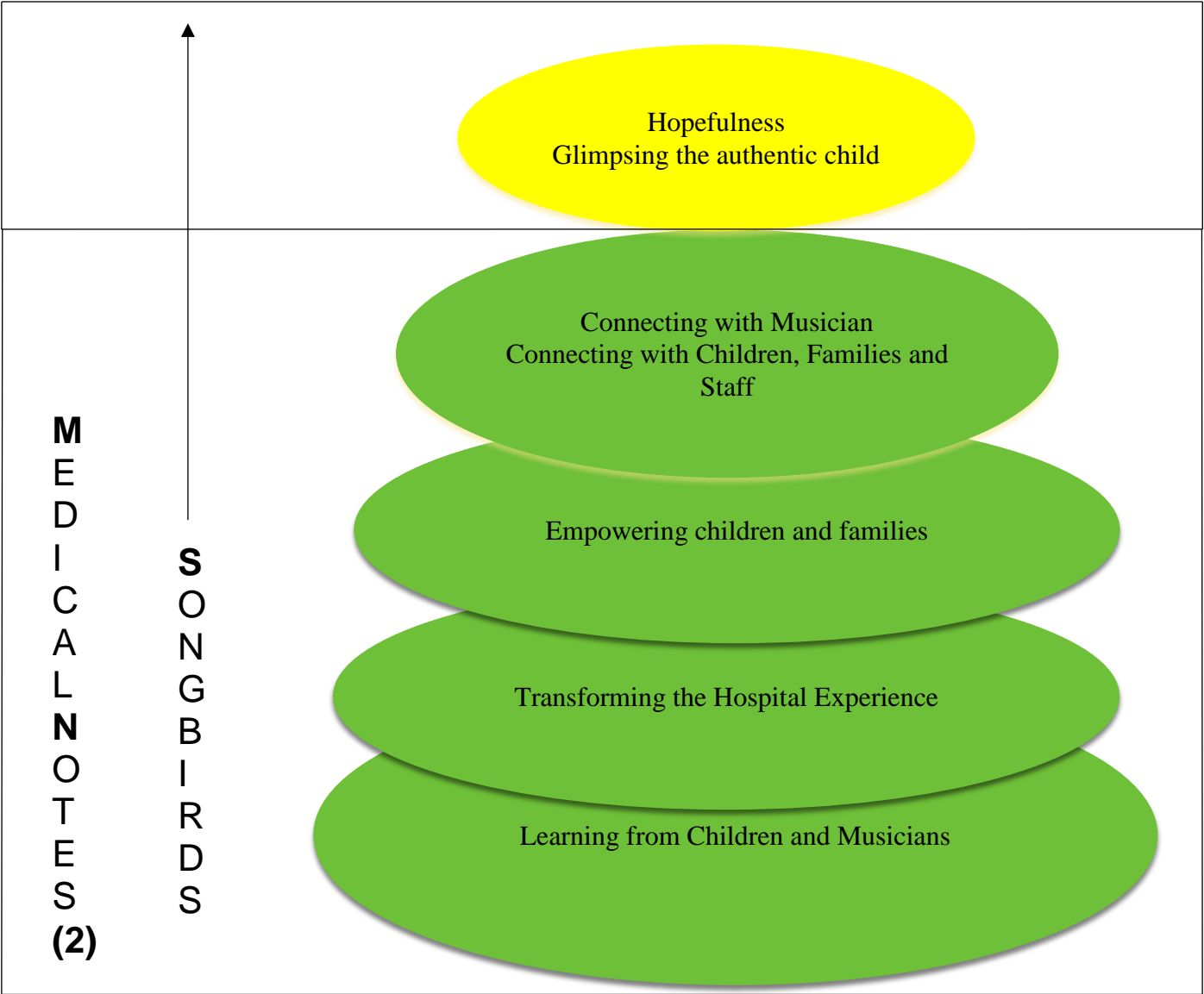
Figure 1: Pictorial representation of the tentative conceptual model

KEY

Outcomes associated with Medical Notes (2) and Songbirds Projects



Outcomes associated with Songbirds Project



FINDINGS 2:

Musicians

In this section of the report we present the findings from the thematic analysis of the musicians' data. To begin, an overview of the scope of the projects with regard to training is presented, this is followed by a discussion of the findings organised by themes; Learning new ways of working; Self-improvement; and Journeys with children and families.

Scope of the Projects

The expert musicians were instrumental in determining the scope and reach of the Medical Notes (2) and Songbirds projects. It was evident that a number of factors had influenced their decisions and these included their personal and professional experience of training and education in Europe and their exposure to music-making in other cultures and in non- classical genres. Mark is self-taught and this equally informs his practice as well as Ros and Holly's experience of using music drawn from other settings outside the United Kingdom and Europe.

The Training Model

The training model had been designed so that accomplished musicians that wanted to work in hospital with children could learn from expert Music for Health practitioners. A four tiered model was proposed. This was centripetal in design rather than hierarchical and was consistent with the expert practitioner understandings that individual practitioners would develop and grow at different times, in different ways, along individual trajectories of participation, but always moving towards greater mastery of their Music for Health practice.

The Four Tiers

- Expert musicians (n 3) would lead, manage, guide, support, coach and oversee the other Music for Health musicians.
- Supervisors (n 3) (those that had been working on the Music for Health project the longest) would be involved in the selection and interview process for the new recruits and were responsible for the mentors and apprentices, guided by Experts.
- Mentors (n 3) had recently completed their initial 12 month apprenticeship and it was expected that they would act as mentees to the newly recruited apprentices with guidance from supervisors and experts.
- Apprentices (n 2) were the newest members of the Music for Health team and would spend 12 months honing their skills underpinned by learning and reflection on their experiences of music-making with children in hospital.

Recruitment

Individuals

The expert musicians and supervisors were able to articulate an exact list of attributes and competencies that they used as selection criteria. There was a strong consensus that the successful candidates (due to join the team in Oct 2014) would need to have *'professional, musical qualities and, attributes that were relevant to the job in the hospital setting...'*. They agreed that they were not concerned with an artistic exchange as the project was more about ***"progression routes for the practitioners..."***. They hoped to recruit professional musicians of outstanding quality that were ***"engaged musically and musically engaging"*** and there was a real desire to ***"engage with a broader church of musicians..."*** (Expert Musician). They required professional musicianship, a portable instrument, an ability to be flexible, think on their feet, and an ability to improvise.

The Task

They also sought a certain standard of maturity and the ability to make-music with sensitivity. They wanted someone that had engaged with their own music, had a depth of understanding in how they related to their music, were able to put that to one side to engage with people, and, have those skills there already to draw upon. These qualities had become emphasised following an episode during which two young musicians had been placed with the team by an outside source for a one off placement experience. One had been inappropriately dressed for the hospital environment, seemed disinterested in anything other than performing in the atrium, and had been ill-prepared. The result was a lack of engagement with the public. Moreover, the experts recalled their experiences of the public responses to different musicians performing in concerts held in the hospital atrium. Those with ***"outstanding quality [have] everybody rushing to the atrium, [rather than] somebody who is nice, they are okay, but they are not outstanding and they do not make the hairs on your arms go up"***.

The Team

They also wanted to select musicians that would ***"fit in with the rest of the team..."*** (Expert Musician). Of note was the requirement for applicants to be ***"at the right levels"***, and not, ***"significantly more experienced in other fields of music-making (musically)..."*** than the existing mentors". The expert musicians were concerned that ***"really strong members... who were very confident..."*** may intimidate the more junior members of the Music for Health team who were still coming to terms with their role as mentors. They understood that there was a difference between ***"appointing a team member and appointing somebody who takes on a role of apprentice...we were looking for someone to come in at a certain level as part of the team in a standard process...; and someone who accepted that level..."*** (Expert Musician 1).

There was no distinct call for classically trained musicians, as there was an agreement that **“you can have musicians who are virtuosos but they have not had a lesson, they may be self-taught...”** (Expert Musician). The approach taken by the expert musicians had much in common with Adair’s (2006) action-centred leadership model as the experts had taken into account the need to improve the offer of music-making to children in hospital (task) in the context of Music for Health practice (team) alongside the needs of each of the musicians (individual).

A traditional route to recruitment was adopted whereby the candidates had to submit a written application that contained a personal statement. However, in retrospect the expert practitioners noted that the traditional approach taken may have inadvertently disadvantaged some musicians.

‘There is a barrier, somehow, to people who perhaps might be from the refugee community or asylum seekers who are very good, skilled musicians with empathetic qualities but yet they can’t comment their skills on paper...’ (Expert)

The design of the training programme proved successful in attracting high quality recruits. The two apprentice recruits were classically trained. One of the apprentices explained that his personal experience and family circumstance had been the initial catalyst for moving into Music for Health practice. However, he was particularly attracted to the structured training programme, feedback on personal development, and the tiers of musicians that gave him access to support and guidance from those at different stages of development. He explained that he had done similar work in different settings but had always relied on trial and error learning.

“Crucially, for me, I think it was the fact that the structure that’s in place here... with the different levels, I just learned for myself only by basically trial and error, but the crucial thing here was I think with the really distinct levels, chance, you know with hours officially aside for debriefing and planning and there’s a real official chance to actually, right, I’m going to learn...” (Apprentice).

The other apprentice musician concurred:

“I have known I wanted to pursue a career in music therapy since I was in sixth form... I want to build up my experience with children which is what attracted me to this project in particular, to have an apprenticeship....” (Apprentice).

The findings from the analysis of the musicians’ data follows here and is presented under the themes of Learning new ways of working; Self-improvement, and Journeys with children and families.

LEARNING NEW WAYS OF WORKING

This theme includes the sub-themes of; *It's not a performance*; *Learning to cope with uncertainty*, *Learning with and from other musicians*.

The newly recruited apprentices were coming to work with sick children for the first time. Both described hospital as a *scary place* for children, but they also recognised that the children in hospital were often bored with few activities at hand to occupy them. They had expectations that the creativity needed in their musicianship would hold in good stead in the context of the Music for Health work.

It's Not a Performance

The apprentices agreed that working in the children's hospital was very different to the experience of working in other health-care settings or performing elsewhere. All of the musicians explained that their work as Music for Health practitioners was different to their work on stage or performing;

"I think that's the biggest difference, you can't be prepared..." (Apprentice).

This view was echoed by many of the musicians. The hospital environment and the busyness of some areas was implicated in this.

"The hospital environment can be busy and frantic. A high level of awareness is needed at all times when working and interacting with patients" (Apprentice Musician).

The frenetic nature and strangeness of the hospital wards could interfere with the musicians' preferred way of working which included being able to select their position in the bay.

"We have a difficult time with curtains. They add more boundaries, but it limits options for choosing appropriate positions..." (Supervisor).

Regardless, the musicians constantly reflected on what happened in the search for solutions and new ways of working. On one occasion the supervisor had mapped out the cubicle, drawing the number of beds and people present. There had been 12 people in one bay, 6 curtains drawn around the beds, 5 members of ward staff and 3 musicians. They concluded that maybe 2 of the musicians could have stayed in the door way to avoid adding to the busyness.

Many of the musicians described their work at the hospital as demanding. This seemed especially so for the apprentices during their initial sessions on the wards. They said they were very tired, partly because there was a lot to think about. This included the instruments, the bag with percussion instruments, cleaning instruments, working with other musicians, knowing where to position themselves and being alert to the non-verbal cues of the children and families engaged in music-making sessions as well as those on the periphery. One apprentice explained that they had tried;

"to musically interact with every patient I met on the wards in an advanced way. Naively, I believed that the way to offer maximum enjoyment was to try

to find a way to allow every child to control our music somehow – be it speed, dynamics etc. I found it frustrating at first that we couldn't /didn't interact with every child in an advanced way, wondering whether we were missing something..."

However, he had come to understand that;

"whilst some children may well interact in a very rewarding and advanced way, it is just as enjoyable to simply want to listen to our music-making and the whole scale in-between..." (Apprentice).

Sometimes, the staff and parents would inadvertently subvert the musicians' intentions.

"Bit awkward because a nurse introduced us like we were going on stage, which forced it to being a performance..." (Apprentice).

"So many people that was difficult to position ourselves well so felt like we were 'on stage'..." (Apprentice).

The difference between music-making with children in hospital and other music performance was exemplified in a discussion between the supervisors. They explained how they felt ***"uncomfortable"*** when parents applauded, ***"I don't know what to do, should I bow?"*** The supervisors explained that this suggested their music-making had been wrongly interpreted as a performance rather than the ***"shared experience"*** they had hoped for. Another supervisor explained that this was perhaps about insecurity, as, had they done something worthy of being applauded it would be different. The conclusion was that the musicians' musical intentions were being misrepresented.

Learning to Cope with Uncertainty

The musicians at all levels were at times left feeling uncertain regarding the acceptability of their music. At times this related to a religious acceptability. One apprentice had reflected on her work with a Jewish family.

"The other child was Jewish. Dad was very friendly but I was unsure to sing to him due to his Jewish culture. It was fine though. Boy got a little awkward when dad left..." (Apprentice).

A Muslim mother had also explained that the musicians had to take care. She explained that her religious beliefs meant that it was incorrect to pursue music played with strings. However, music was acceptable if the purpose was therapeutic rather than entertainment. She had been somewhat reluctant to engage with the music-making session but thought it therapeutic for her son. There is no single rule within any culture or religion regarding music though some parents found certain types of music-making inappropriate. Interestingly, cultural issues had been discussed with the play specialists during a study day. While some of the musicians, especially those with more experience, drew on global and diverse cultural influences during their music-making activities, other staff remained somewhat uncertain, at times, about the appropriateness for all

children and families. Further work is needed to explain more fully what implications there may be for the musicians and the families regarding this.

Other incidents led to uncertainty. These related to situations that the musicians found difficult to handle. One extreme example related to an incident that happened in playroom. A mother had abruptly taken instruments from her daughter and reportedly ‘dragged’ her out from the playroom. One apprentice had reflected in her diary;

“The little girl was so shy at first and unreceptive. Managed to get her playing the bells and shaker and toy (mirroring each other) and then it was all just ruined. I wanted to cry. We’d worked so hard with her. She was a sibling of a patient so maybe her mum was stressed? This was a really hard situation because I had to learn very quickly about compartmentalising my feelings in order to carry on with the session in hand efficiently...”
(Apprentice).

The musicians had reported the incident to the ward staff, but the apprentice was not alone in finding this situation difficult. The other musicians involved in the incident had sought an explanation for what had happened, but they remained uncertain about the cause for the mother’s actions. There were other situations in which the musicians were uncertain. One of the supervisors had reflected on one occasion when a consultant had started to speak with a mother about the outcome of her son’s operation in front of her. She was unsure whether or not to proceed with the music-making but decided to do so. On other occasions children’s behaviour caused difficulty. For example, one young boy who had recently started violin lessons had tried to grab the musician’s bow; his father was visibly angry with him and the musician reflected;

“I am quite open to children touching the strings lightly, or holding their hands on the wood to feel the vibrations, but only when I’m certain they will be gentle...” (Supervisor).

Nonetheless, she had been able to engage the young boy by distracting and offering him a percussion instrument. Similarly, the busyness of the wards got in the way as a supervisor had reflected;

“the ward has contrasting moods all over – some seem hectic, there are famous actors visiting, other parts seem really low – it feels like there is little time to find our feet...” (Supervisor).

Still, the musicians seemed undeterred and were resilient. They would play in corridors, in lifts or they would try to use their music-making to impact on the situation, positively;

“With a stressful and anxious atmosphere on the ward, the music seemed to infiltrate the tension and begin to gently diffuse it. In one busy waiting room area, we stayed for around 10 minutes without interacting with anybody in particular, just standing amid the mass of people and playing gently....” (Supervisor).

Other musicians appeared uncertain about their mentoring and supervisory role. One supervisor spoke about being uncertain when working with one of the apprentices. She knew the apprentice was eager to participate and did not want

to crush this but was not certain how to proceed. She was uncertain that she would be able to manage the music-making sessions and be responsible for the apprentice at the same time.

Her uncertainty was compounded at a later date when two families said “**No thank you**” to the offer of music-making. This was interpreted as a rejection; something with which the apprentices were unfamiliar. The supervisor had reflected that the apprentice was disappointed by this and become nervous. The supervisor was uncertain regarding the best way to support the apprentice through this experience.

Other uncertainty related to expressed emotion. Some musicians had reflected on learning that they were not responsible for the mood on the wards or in particular bays. They also came to understand how their own moods could impact on their interpretations of how the children and their families had responded to the music. Sometimes this left them feeling uncertain of how to proceed. For instance, one of the supervisors had reflected that she had felt vulnerable and found it difficult to fully engage with the music-making. She was not enjoying the session. She was worried that other musicians had noted her feeling vulnerable. She was uncertain about going back to the hospital. Over time and with more experience these concerns had diminished and she accepted that there was a need to avoid interpreting some of the things that happen in hospital as being down to her work. In the words of one musician “*things happen in hospital and no-one knows why*”. This appeared to be something that the experts had learned and internalised. It also resonates with the notion of trusting relationships being dependent on practitioners being available and accessible to children regardless of what is going on at home or elsewhere in their lives.

Learning with and from Others

Different learning at different levels was also apparent. The apprentices focused on music-making with children and families and they reflected on their ability to move away from performance towards musically engaging children in conversations. They also focused on learning to manage the situation and cope with the environment. An important aspect was learning to connect with other musicians and work effectively with different instrument pairings;

“We’re good enough (regarding repertoire) it’s that we question if the instruments are balanced musically? ... We are more aware of that than the patients; we just want to give the patients the best musical experience. The cello and guitar, that’s ideal, if we’ve got that balance.....” (Apprentice).

In response to this challenge the apprentices had started to experiment and work with different instrumentation;

“in the past few months I have started using the ukulele...had it just been me and a violinist there, that’s quite tricky, you have to deal with the harmony end of things...” (Apprentice).

In this they were developing strategies used by the mentors, supervisors and experts, in order to ensure a balance of melodic and harmonic components within their musical interactions thereby creating a rounded musical experience for patients and families.

Similarly, the mentors felt that they had developed skills during the project and that these skills had impacted not only on how they worked in the hospital setting but also on their other roles. For example, one mentor described how initially she had felt '*panicked*' at the idea of working without a script. That is, when performing she always had sheet music to work from. In this new role, she had to develop skills of working intuitively and alongside her fellow musicians. She described how this skill had given her confidence when performing as she felt able to improvise if necessary. Ultimately, this had the positive outcome of alleviating performance anxiety because she was no longer afraid of forgetting the notes. Another mentor agreed with this and described how she now perceived music as "*something fluid and not rigid*". She also felt much more confident in improvising during performances. The supervisors reported similar experiences. This demonstrates that the skills developed in the hospital setting are applicable and transferable to other settings and ultimately that these may enhance the musicians' performances. These practical areas of improved confidence were documented in one of the mentor's reflective diary when they wrote they had improved skills relating to their ability in; *improvising, holding harmony line, drawing people in*.

Another aspect in which this group of musicians had grown in confidence was in their decision-making skills. They described how initially they relied on the play staff to identify children to work with, this had gradually changed during their visits and they worked more independently at this time. They also recalled if staff had been 'off' with them they would take it personally, which they no longer thought they would. They had successfully negotiated their presence on a new ward and felt they were able to '*connect with the children*'. They described working autonomously and felt that they had now had time to embed their new skills.

This is evident in one mentor's reflective diary. She described a music-making session with a boy and a teaching assistant. The teaching assistant had participated and the mentor had concluded that it;

'...was great to work with the teaching assistant, as we usually avoid sessions if she is there in case we disturb her work. She was very appreciative of us helping her' (Mentor).

This demonstrates that the musicians were growing in confidence and prepared to take risks in their involvement of hospital staff. Similarly, the supervisors, who had expressed some doubt as to their ability to support, mentor and coach staff recognised how far they had come in their ability to work effectively with less experienced practitioners;

"I feel my role as having changed as I feel I need less support..."
(Supervisor).

Regarding the music-making there were clearly decisions to be made on numerous levels as part of that process, one mentor reflected on this ***"if we take the time to really take in what the person is showing us then we can make good decisions"***.

This was underlined in a reflective example from her diary when she felt she had not made a good decision as she had been influenced by environmental factors, she concluded that:

“Sometimes I am taking so many different things in and trying to be aware of so much, that I don't ask myself the fundamental questions and I don't allow myself to truly be in the moment with the child. So I took a huge amount from this short experience and am going to try and apply what I have learned to my future work... (Mentor).”

This was a way of demonstrating her ability to reflect on and learn from practice.

In summary, indicators of increased confidence for the mentors included:

A greater independence in practice, ***“I don't have to think about it anymore”*** (indicating that they did previously), not taking hospital staff negativity personally, being keen and prepared to become mentors, identifying themselves as being autonomous and having embedded their skills.

For supervisors increased confidence was evident in their perception of being able to effectively support, mentor and coach more junior practitioners; in demonstrating their ability to give feedback without being worried that they would upset colleagues; the ability to make and take reasoned judgements on others' performance; and their ability and willingness to take risks. In addition, they reported that they no longer felt responsible for the low moods of others and had become comfortable *‘going in’* without their instruments.

SELF-IMPROVEMENT

This theme incorporates the sub-themes of; Transition to Mentorship and Facilitation of Skill Acquisition.

Whilst there was a hierarchy of ‘tiers of musicians’ within the study, none of the musicians perceived this as a rigid structure. The experts were keen to explain that the language was used to differentiate between the levels of experience rather than to be hierarchical

“can't call everyone a trainee – need to recognise differing levels of experience...” (Expert).

Transition to Mentorship

The mentors and supervisors described the structure as *‘fluid’* and that there was no sudden shift to *‘becoming a mentor’*. They described that they now *‘led more equally’* indicating that previously their mentors (now supervisors) had led the group. They did however acknowledge that if there was a difficult situation they would look to the supervisors for guidance. They also acknowledged that at the beginning they asked more questions and that this had reduced over time. In addition, the groups perceived and talked about there being no hierarchical distinction between the musician categories and there was no formal or assessment process to their advancement. However, there was a clear structure in place, although this had been revised following the results of a mid project evaluation which had resulted in the process of transition to mentor being slower than initially expected.

At the start of the research, a number of supervisors and mentors expressed some anxiety about their ability to mentor and give feedback to others. One supervisor explained that her intention was to mentor in the way in which she had been mentored, meaning that she felt she had benefited from direct feedback in debriefing sessions. Another supervisor expressed concern that she may upset other musicians by commenting on their practice. She found mentoring difficult as she felt *'responsible for everyone in the room'*. That said, over time her anxiety had lessened. The supervisors had discussed how one of their initial concerns that related to their ability to mentor others became an intuitive part of their practice. This wasn't always easy, especially in relation to making visible to others tacit knowledge. As one supervisor explained that she had learned her instrument before she could remember how she had done, this meant it was hard to explain to others why she did what she did.

That said, all musicians perceived benefits to the role of mentor. A supervisor explained how mentoring others meant becoming more reflective and analytical of their own practice. However, they also agreed that it was not possible to *'know'* everything about practice and that sometimes *'there was no solution...'*.

The mentors expressed similar misgivings about becoming mentors but tended to focus on more practical aspects of the role. One mentor lacked confidence in her role as mentor and feared being perceived as 'bossy'. She felt she did not have the skills as a mentor to take the lead and support her apprentice and concluded that they both felt 'insecure'. This may have been compounded by the lack of a harmony instrument which placed both musicians outside their comfort zone, leaving them feeling challenged. Although the mentors had indicated that they did not feel ready to take on the role of mentor, they were frustrated by the decision to delay their mentoring role. This was based on the findings presented by Cavanagh et al (2012), and the experts reflecting on the time needed by practitioners to consolidate their practice before becoming mentors. However, this eventually led to feelings of frustration as they were keen to commence this role;

"that decision [not to be mentors] has been made so we have to wait..."
(Mentor)

Over time, they became more prepared for their role.

Something that appeared to be influential on their sense of 'preparedness' was working closely together for a sustained period in summer 2014. This was considered a *'turning point'* for them. They reflected that there were *'lots of things we do that we don't have to think about anymore'*. This demonstrates their perceived sense of development and illustrates the intuitive nature of their work. It would appear that as a group they were *'experiential learners'*. That is, they learned by doing; as intended by the project leaders.

Although the experts and supervisors had sought to recruit accomplished musicians with less experience of Music for Health work, working with the new members of the team has been beneficial. The supervisors all agreed that their music-making practice had been enhanced through their mentoring role. They took delight in observing the leadership ability of one of the mentors, another's

use of body and intuitive work with children. They explained that they used these experiences to reflect and further develop their individual practice. For instance, working with a voice artist has challenged the whole team to consider how they used their voices. Indeed, they were entreated to ‘sing louder’ or ‘sing’ at all during a 3-day training session led by a visiting, world-class, Music for Health expert.

“You can sing louder, your voice is beautiful, believe in it...you can both use more variations in singing together (unison, 2 voices) solos, call and respond....”. (International Expert).

Following the training event one of the supervisors had taken singing lessons and one of the apprentices commented that;

“there is something very natural about singing and vocalising which speaks to us all at a primal level, even if just simply humming as a harmonic support...”. (Apprentice).

Of note was that the international expert offered immediate feedback on what she had witnessed. One of the experts had been impressed by this. The training model was set up to allow for feedback across the skill set, both in musicianship, engaging with children and families and mentoring capacity. The model intended that feedback would work from mentor to apprentice, supervisor to mentor and expert to supervisor but all musicians had access to each other. Nonetheless, there had been some unease related to feeding back to others on their practice. The training event appeared to persuade the musicians of the importance of immediate feedback and the benefits that could accrue from this.

“I think [French expert] coming over as well, and having somebody external, I don’t think I personally realised how much that would be of value to all of us because we are all in this structure and we are all trying to find our role...’ (Expert).

That said, as with the practice based nature of becoming Music for Health practitioners, it was clear that the supervisors and mentors were ‘feeling their way’ using ‘trial and error’ to test things out. For instance, one supervisor had asked an apprentice to accompany her to the wards without an instrument. The result was gratifying;

“I quickly found that I was forced to listen and watch more. It became liberating to notice more of the effects our music had on not only the patients but also nurses and other support staff. Expanding my sense of awareness whilst on the wards has been an important area of personal and musical development for me. Over the year this has been an exercise which I have repeated as a way of ‘recalibrating’...” (Apprentice).

When asked why a decision to do this had been made, the supervisor was unsure; it was considered to be a means of maintaining control over the music-making activities when first working with less experienced musicians.

The supervisors expressed their cohesion and special relationship as a group by “feeling freer” when they worked together and having a sense of “trust” in each other and each other’s practice. Two of the experts were also noted to have a ‘special bond’ by the international expert who commented;

“You are such good partners that you can try to start without deciding beforehand...that can give the opportunity to surprise yourself and your partner and work on a strong duo connection in non-verbal language...”
(International Expert)

In contrast, however, one supervisor has noted that working within the supervisor group felt very comfortable and there was a clear sense of trust, but they no longer surprised each other. They noted pros and cons to this in that working with those known less well presented the opportunity to be surprised and gaining insight into a different way of doing things.

One supervisor reflected on her work on the project;

“The hospital work is very humbling. I feel very lucky to be able to play music every day as a job. There is a lot of space in this work for creativity, and forgetting all the ‘rules’ that often apply in work when giving concert recital for example. Using my voice, experimenting more and more with improvisation trying to communicate with music alone, trying to translate creative ideas from patients/environments onto my instrument...all whilst playing together with really great musicians. Its challenging of course, but I enjoy that too, and I really love being part of the programme.”

Her aspiration and ambitions reflected the work undertaken by the experts in the SONGBIRD project discussed later in this section and earlier in the Findings (1) reported earlier from the children, families and staff.

Facilitation of skill acquisition

The mentors, supervisors and experts all agreed that the main challenge in developing skills was managing diaries to enable working together as a group. In the interview the experts talked about the challenges of wearing numerous hats; supervising other musicians whilst managing the complexities of making music in the hospital setting. This was recorded contemporaneously by the experts in their journals;

‘We are feeling the pressure of trying to deliver our best and have active CPD with Songbirds, yet try and support the Medical Notes musicians too.’
[Excerpt from expert journal].

All musicians appreciated time given for feedback and this is recorded in their reflective diaries as noted by one of the mentors;

“[I] valued being observed by the supervisors and hearing their feedback in the debrief on my performance...” (Mentor)

The same mentor also documents the value of observing the experts in her reflective diary:

“Working with the experts was really beneficial, learnt a lot from observing them work and from working with them as a team and receiving the gentle guidance”.

“As we were working with the mentors we visited some of the children they have worked with several times before. This was really interesting as they

had had the chance to develop a relationship with these children and better understand their musical needs. I felt that because of this, we were able to give them a more positive experience. It would be great to have the opportunity to do this more as we more frequently see children on a one off basis and don't have the chance to develop a music relationship with them".

In contrast, being observed could at times, increase the pressure felt by the musicians, as noted by one mentor who reflected on a session that was being observed by an expert made her worry she was being judged.

Another highly influential factor on the development of all musicians was the training session with an international Music for Health expert. This had a profound impact on the way the group connected, engaged and performed. The apprentices, mentors, supervisors and experts explained that the international expert had stressed the importance of '*connecting as a group*' before going into the ward area. One of the ways this was achieved was by beginning to play music, in order to establish a strong musical connection between team members before gradually entering the ward. In doing so they recognised that this helped them to be musically confident and ready to concentrate on the children once in the ward space. There was evidence that this had been recognised as an issue in the months preceding the training by one of the mentors who recorded; ***"We were too spread out to properly engage with each other which didn't help"***.

Another mentor had reflected that;

"Next time focus more on establishing ourselves as an ensemble first. This is something to continue working on over this year. Small things like making eye contact and smiling at each other help to bring us together as an ensemble and are key to staying 'in tune' with each other".

Following the training session, a number of musicians had documented learning points which included:

"Positioning and spacing needs to be clear, make decisions in the corridor out of view before entering the space, start the music at the door and don't be too quick to move into the room, maintain your musical identity and intention".

For one of the supervisors, learning together in a group was fundamental to the team cohesiveness;

"When we all learn together as a team things happen...there's a lot of energy and momentum and you learn a lot when your together for 2 or 3 days, that's really where I have learned a lot...". (Supervisor)

The experts concurred;

"Everything 'clicked into place...as an outsider coming in she could be more objective as she was not part of the 'family'...." (Expert)

The group consensus was that this input had helped the musicians to focus on the development of their individual Music for Health practice rather than their roles within the Music for Health team. The supervisors, mentors and apprentices concurred. The training sessions had stretched their skills, forced them to work with different people and helped them to reconsider the use of their 'whole selves' in their work. These training sessions had helped the team to reflect on their approach to children in clinical areas and they had developed a better understanding that they need to connect, through their music first, before approaching the children and their families. In this, connecting with each other was as important as connecting with the children and families (as discussed earlier in the report).

All of the supervisors wanted more time to work together with other members of the team, they also wanted, as did musicians at all levels, more time with the experts. One supervisor expressed a desire to have '*more common shared experience*' and explained;

"I'd like to come back and do a short residency, it's been quite a long 2 years and most of it has been about mentoring and training. I'd like to have the opportunity to have some focused time...". (Supervisor).

Another supervisor explained their desire to have consistent and ongoing opportunities to develop their practice in the hospital;

"The hospital should employ musicians as they do music therapists, then we could just keep doing what we're doing..."

That said, on occasions, some musicians found it difficult to have their ideas and opinions heard, they wanted more autonomy over their practice. This could relate to the structure and having sufficient time available for the team to get together and discuss and debate different ideas. It could also relate to developing competence and the desire to engage autonomously in independent practice; both related to the development of mastery. This was noted by the supervisors who aspired to residencies in order to further develop and hone their mastery.

JOURNEYS WITH THE CHILDREN AND FAMILIES

For the experts, autonomous, independent practice was central in their work with children recruited to the Songbirds project. As the musicians in the Medical Notes project were learning to work with each other in different pairings, the experts had worked together for many years in many different contexts.

Working together for many years had enabled deep and meaningful connections between the two experts that worked on the Songbirds project. This appeared to support their intuitive practice. This was noted by other musicians and the international expert. However, one of the experts reflected their understanding of what had helped them to learn and further their mastery;

"It has been interesting for us to note the confidence gained in working with long stay patients over a significant length of time. We are now aware of,

having experienced the process on more than one occasion, patterns of behaviour that can occur... the child has no control over what may or may not happen in terms of necessary medical interventions – it is only with music, and any other forms of therapeutic activity, that the child can begin over time, to understand that the activity is on their terms, will not hurt and can be fun – a release, and unconditional...”.

This insight resonates with the findings reported from the children, families and staff, in that some children in hospital become hyper-vigilant, demonstrating behaviour more commonly associated with children that have been abused. The experts have learned and are helping others to learn the importance of giving children time to test out what is on offer rather than bombarding them with activities that adults think they should enjoy.

As one expert wrote in their reflective dairy;

“We have found ourselves helping to bridge physical gaps between child patients, who may be in beds or rooms next to each other, but unable to interact, or even be aware that there is another child next door to them – through making up simple name songs and guiding both children and their families though the process of musical interaction we have been the ‘glue’ that can help to diminish feelings of isolation or disconnectedness...”.

An important part of the mastery in the work of the experts was their ability to discern the ‘weather’ of the ward, and develop a musical language of communication using mouth sounds, including ‘clicks and kisses’ – ‘blowing raspberries and bubbles’. Key in this is a sophisticated understanding of what counts as voice for pre-verbal children, a point often misunderstood by others. For children voice includes their non-verbal and verbal response. For instance, being silent is a potent form of voice for some children. As noted in the reflective diary of the experts, mouth sounds provide a form of voice. Added to this they note that while some communication is intentional other communication is not; yet all are ‘valid within the music-making experience’. Working in this way has enabled the expert musicians to communicate with children with the most extreme communication challenges. For instance, one young boy ‘started a conversation by opening his mouth and gently ‘popping’ this was a considered a break through’. That this mattered to the family is evident in the father’s position changing from one of doubting that the interaction would have any impact to him filming the music-making sessions on his phone so that he could show others what had happened.

Another important aspect of their work on the SONGBIRD project was to enable children’s development. Many of the successes noted in this seem small but all were of extreme significance for the children and families involved. The following excerpt from the experts’ reflective diary provides insight into the perceptions of the musicians regarding the process and impact of their interactions with the children, what they think is going on when this happens, and how it is brought about;

“One young girl used a hand that had had been damaged through an ABI unconsciously in a group music session – her family all saw her do it and had said it was the first time she had not been self-conscious to do so. By

being mentally and physically present in the music making, a child can forget their surroundings and their own perceptions of their current condition – staff can become music makers and music enablers too – the music can unite everyone, even for a moment, in a way that diminishes the clinical surroundings of the immediate world of the ward. As musicians we watch closely to enable this to happen fluently, observing all and linking to them, mirroring eye connect, voice sounds, instrument playing, singing, smiles and body movement and gesture”.

It seems that basing future training and development of other musicians on the lessons learned from the Songbirds project and mastery inherent in the experts’ practice will help less experienced musicians and those searching for greater independence and autonomy in practice to further develop their own competence and mastery as expert Music for Health practitioners.

Summary

The experiences of the musicians is comparable to Lave and Wenger’s work on communities of practice (2002). Lave and Wenger (2002) define the community of practice as:

‘A set of relations among person, activity and world (in which) participants share understandings concerning what they are doing and what that means in their lives and for their communities’ (p115).

They argue that learning does not take place in isolation but is contextualised in the social world and critically is part of social practice. They describe learners moving from the periphery of the community of practice to the centre by engaging in activities, this process is labelled ‘legitimate peripheral participation’. Undertaking this learning journey, the learners understanding is modified through contact with significant others or masters, as described in the findings reported here. This educational perspective can be applied to the experience of the apprentice musicians whose internal understandings of music-making are exposed to external scrutiny of the mentors and supervisors and subsequently modified in accordance with the feedback received.

As seen in these findings access is central to legitimate peripheral participation as new staff need to be given the opportunity to engage with the culture of practice. Should such access be denied, participation and ultimately learning will be limited (Lave and Wenger 1991). The role of mentor is multi-faceted as they can provide access and demonstrate the skills required to move towards mastery and independent, autonomous practice. In addition, peer support and the sharing of knowledge with fellow learners can also facilitate learning. However, a cautionary approach may be needed as highlighted by Garrow and Tawse (2009) as learners may look to their peers for guidance when none of them have the experience or knowledge to inform their practice. In addition, too much emphasis on a structured, tiered hierarchy, may lead to frustration if those developing mastery of their practice feel thwarted in being able to practice independently and take risks of their own.

The notion of 'journeying with children' which relates to the Songbirds project and the work of two expert musicians, places the children's wants and wishes and their needs in the centre of the music-making encounter. It is rare to find such a child-centred approach; while many espouse this, few attain it in practice (Livesley and Long 2013). The notion of what counts as voice for children is a contested matter. This work provides clear and robust evidence that any child can communicate. It is incumbent on the adults spending time with children with communicative difficulties to work with them to identify how their voice can be enabled and what communication preferences they have. That the experts do this with children in the Songbirds project is clearly evident. Their methods in achieving this are worthy of wider dissemination beyond the music-making practice arena.

From the perspective of expert musicians, the deep, trusting relationship that exists between them facilitates success in their work with the Songbirds children; as the international expert highlighted. Such therapeutic relationships have been described as going beyond '*knowing the condition or the patient*', rather they involve knowing the person (Dinc and Gastmans, 2012, Morse, 2007). Morse (1991) described a connecting relationship as going beyond that of a therapeutic relationship through the practitioner and patient working together long enough to develop a sense of trust. For Morse, a connecting relationship is often illustrated by the practitioner protecting the patient from some of the more unpleasant aspects of care, with the patients interpreting this as the practitioner '*going the extra mile*' (Morse 2007). In a critical literature review into trust in nurse-patient relationships, Dinc and Gastmans (2012) reported the need for those working with people in hospital to be available and accessible, emotionally safe, to value the person, and engage in respectful communication. This resonates with the work undertaken by the experts and their seeking to recruit musicians who are musically engaged and engaging. With regard to hospitalised children, meeting both parent's and children's needs is an important aspect of developing trust. In the Songbirds project, this appears to rest on the expert musicians' ability to communicate intuitively. However, their reflections indicate their understanding that their music-making relationship is founded on years of work, a deep connection with each other and pattern recognition.

Bringing hope to families of children facing adversity is fundamental to their coping and living meaningful lives (Duggleby et al 2010, Horton and Wallander 2001). Increasing a sense of hope may enhance coping in distressed individuals and enhance resilience (Horton et al 2001). This is important for parents, as noted by Horton et al (2010 p 395) "*The impact of hope as a resilience factor is most salient in those situations in which mothers perceive themselves to be burdened by a great deal of care giver disability-related stress...*". The experts show a unique ability to do this in the Songbirds project. Reducing isolation, bringing families together, especially those in distress, and, encouraging interaction and friendship is a goal that few people working with hospitalised children ever realise.

The musicians engage in many different forms of learning. To begin, the focus of learning related to the 'core skills', this involves learning that music-making is not a performance but a means to have conversations with children regardless of their communicative ability. Learning to harmonise, lead, follow and support other musicians. Learning to manage and cope with busy hospital wards and being able to cope with sombre moods, frenetic areas and rejection. Preti and Schubert (2012) reported that musicians working as bedside musicians may play to enhance the wellbeing of the children and patients but may risk their own health and wellbeing by doing so. This emphasises the need for ongoing support, mentorship and supervision to avoid burn out. Such support may mitigate unhealthy coping behaviours and dealing with uncertainty and uncertain situations and emotional burdens.

The musicians also reflected on learning to cope with different responses to their music-making and accepting that sometimes it is not possible to fathom the reasons for others' behaviour and actions. However, not all learning needs were met, and further exploration of the acceptability of music-making to all factions of the hospital population is warranted. In addition, it would seem that having the hours to work and learn together was critical for the cohesiveness of the group and the development of these core skills.

SECTION 5:

Discussion of Findings

The children involved in the Medical Notes (2) project have endured repeated hospital admissions. Those in the Songbirds project are those that have experienced extended hospital stays and in some cases have never been home. These children are exposed to numerous professionals who frequently undertake unpleasant clinical procedures. Hospitalised children, regardless of the reason for admission have little, if any control over the interactions and experiences they have when in hospital (Coyne and Livesley 2010). The music-making is one thing in which they can participate as an equal.

The findings in this study concur with those reported by O'Callaghan et al (2013) Preti and Welch (2011) and Preti and Schubert (2011) that children and families thought most responsive to music are those most likely to engage positively and reap the benefits from music-making. However, children's engagement with bedside music-making is dependent on a number of gatekeepers. Preti and Schubert (2011) and O'Callaghan et al (2013) have noted the parents' gatekeeping role reported here, especially in enabling engagement or denying permission for their children to be involved. Preti and Schubert (2011) also note that a parent's negative reaction may relate to high arousal states and parental distress. This leads to a felt need to 'protect' their children, though it could also be indicative of parents trying to establish and maintain their parental role. Yet, there will always be occasions when the parents' perception of what is needed, appropriate or respectful, will differ from their children's perceptions. Parents are often placed in an impossible situation of needing to assist and give permission for treatments that are considered best for their children, whilst wanting to protect them from the distress or harm that sometimes follow. The findings in this study suggest that parents were far more likely to encourage rather than dissuade, discourage or deny their children access to music-making. However, there were some dramatic moments of parents bringing children's engagement to an abrupt end. Other parents were sometimes sure that the music-making would be a waste of time, but nonetheless gave permission for it to go ahead. The results of this could be dramatic, as in the case of the parent making a video of his son's communication with the musicians in the Songbirds project.

However, this study adds insight into the gate-keeping role of staff, in which decisions appear to relate to their experience of the work the musicians undertake with children. That said, although this decision making lacked transparency and was difficult to articulate. It was sometimes during the research interviews that the staff reflected on their gatekeeping role. Those with less experience of the musicians' work were more likely to deny children access. This has not been considered elsewhere.

There have been a number of studies published which have sought to measure the impact of music-making with children in hospital (Hendon et al 2007, Klassen et al., 2008, Colwell et al., 2013). These have focused on the physical impact such as heart rate, blood pressure and oxygen saturation levels (Longhi et al

2008, Colwell et al. 2013) and emotional impact such as number of observed smiles (Hendon et al 2007). Robb et al (2008) have reported that active music-making enhances children's coping strategies. Longhi et al (2013) have also sought to determine if it was the music or the interaction with the adult that was responsible for any improvement in children's well-being, reporting that the music is the most important factor. That said, Longhi et al (2013) have speculated that the duration of the music-making sessions may be the most important factor, with longer sessions proving more beneficial. This is consistent with research undertaken with children in schools that points to engagement with musical activity impacting positively on children's social inclusion (Welch et al 2014). Papinczak et al (2015) undertook a small mixed method sequential study in Australia to explore the psychological constructs linking music use with well-being in young people and reported the identification of 4 interlinked important themes - one of which was relationship building. The researchers reported that music played a fundamental part in developing and maintaining social relationships. Music enabled the young people to participate in positive interactions with others and have a feeling of being 'connected with others' that was viewed as an important element of maintaining the feeling of well-being. It is possible that similar mechanisms are at work in bedside music-making with children.

It is important to note that the researchers in both the Medical Notes (2) and Songbirds projects concluded that the emotional connection the musicians created through their music was a fundamental part of the music-making sessions. Furthermore, it was this connection that resulted in the positive responses of laughter, creativity and fun; whether through active or proxy participation, the value of which has not yet been measured. O'Callaghan et al (2013) also reported that music has the capacity to 'enable connective relationships' that may support and allow children to adapt to alternative environments and explore new realities. This tallies with the findings of evaluative reports undertaken by Haake (2013, 2015) on the 'bedside music' offered in other paediatric settings where parents and staff benefitted 'by proxy' through the relaxant properties of music assuaging busy sound environments and, through their enjoyment of watching and listening to the children participating in music. A view that supports Longhi, Pickett and Hargreaves' (2013) speculation that it is 'music per se' rather than the social component of music-making that improves the wellbeing of hospitalised children. This latter point warrants further work.

Similarly, Preti and Welch (2011) and Preti and Schubert (2011) have reported similar findings to those reported here, that active music engagement enhances hospitalised children's coping strategies and enhances their wellbeing. One explanation for this was that active music engagement mitigates the children's perception of a hospital environment as stressful. Preti and Schubert (2011) have argued that music with which the children are familiar, acts to familiarise the hospital environment. The findings reported here challenge this as the music was specially composed for bedside music-making and intentionally avoided pre-existing musical associations. We contend that it is the musical experience (rather than the familiarity of the music) which elicited the positive responses.

No previous studies have made links between the process of music-making and the empowerment of children and their families. As discussed previously

empowerment is a central concept in this study. It was noted that some of the children observed in this study appeared to be truly empowered for a moment in time during their hospital stay, that is when the musicians were being led by them and they were allowed to make choices. Indeed, the research team agreed that the music-making was one of the most child-centred means of working that they had witnessed, anywhere. The approach and control afforded to children by the musicians is impressive, not least for those children with communicative difficulty.

The findings related to the concept of empowerment are also important with regard to family-centred care. Hospitals in the U.K. (as elsewhere) aspire to the notion of family-centred care (Smith et al., 2002) which has underpinned healthcare practice in paediatric settings since the seminal work of Shelton et al. in 1995. Pivotal to family-centred care is the aspiration of working in partnership, involving parents in decision-making and directing the care of their children. Unfortunately, this remains largely aspirational (Smith et al 2002). Added to this is the inherent tension between family-centred care and child-centred care. A critical ethnographic study of children in hospital pointed to children being disempowered with their parents sometimes corralled to act in tandem with healthcare staff (Livesley and Long 2013). Given this, the children were seen to make determined efforts to assert their agency and when they failed they would 'turn away' or become 'silent'. While such behaviours are implicated in any understanding of children's 'voice', these behaviours were often misinterpreted by staff as the children acquiescing with care or settling in (Livesley and Long 2013). The findings reported here demonstrate that some children were able to disrupt the work of the musicians when they failed to get what they wanted – such as being denied access to the Cello. However, the children-centred nature of the music-making reported here suggests that the musicians achieve a way of working with sick children in hospital that others fail to achieve. There was evidence of them making determined efforts to work with children that appeared disengaged.

In many ways, children in hospital are no different in their relationships with their parents than children not in hospital. Relationships between children and their parents in hospital are constantly shifting and the literature is replete with studies demonstrating that children and their parents often express different understandings and perceptions of the same experiences and different perceptions of children's competency (Komulainen 2007). However, whilst it is acknowledged that there will often be a tension between the parents and their children's understanding of what is in the best-interest of children, the findings from this study indicate that music-making is one example of a 'respectful interaction'. The approach adopted by the musicians allows for the children and parents to 'test' out their response to the music-making being offered in a safe way. In this the approach mirrors that reported by Preti and Schubert (2011) but is unique to bedside music-making musicians, as other professional groups are socialised and legally bound to the notion of seeking permission from parents (or those with parental responsibility) before attempting to engage children in interventions. In doing so, the parents' voice and view trumps that of their children.

Callery (2004) has suggested that empowerment of children and their family can be promoted with 'respectful interactions'. This is consistent with Morse's (1999) description of the conditions present in connected relationships. It is contended here that, through connected relationships, the musicians bring a counter culture to that usually experienced by children and families. This culture of placing children at the centre of any engagement appears to disrupt the usual way of working. Most often the hospital staff would wait, respectfully, until the music-making had finished. Although this was not always the case, and while unusual, hospital staff would sometimes continue with the usual daily routine, almost ignoring the musicians' presence. Perhaps, the strongest evidence of disruption to established cultural practices came from the medical students who explained that their experience of working with the musicians had enabled them to witness the benefits of working in a different way. They concluded that they would try to incorporate the same mechanisms in their future professional practice when working with children. These insights have not been reported elsewhere.

Sometimes, the ability of some of the Songbirds children to respond to stimulation is considered doubtful. The findings reported here suggest that music may elicit the best response from children with extremely challenging communication problems. Indeed, music has been described as an innate capacity, unimpaired by injury, handicap or trauma (Case & Else, 2003). Of interest and relevance to this are the findings reported by Magee, (2007) regarding the development of a tool to assess adult patients with neurological problems in low awareness states. The tool centred on the importance of timbre and pitch when eliciting response from this group of adult patients. As noted by Baker, (2007) music may elicit a 'best response' from hospitalised patients in altered conscious states. The findings reported here emphasise the therapeutic possibilities in relation to outcomes and impact for the children and the families in the Songbirds project; not only with regard to communication, but in helping the children to recover and develop social and both fine and gross motor skills, not achieved through other means. This is consistent with the work of Nordoff and Robbins (1997) regarding the 'Music Child' which refers to the hidden child - the one behind the serious disability that limits communication and cognitive function; the very centre and the spirit of the child that reveals itself within music-making. The idea of the "Music Child" reminds practitioners to seek the underlying personality of clients, not just the disability on the surface.

The Songbirds project also provided the right conditions to promote hopefulness. Snyder et al (1991 p 570) defined hope as a cognitive set that is composed of a reciprocally derived sense of successful (1) agency (goal-directed determination) and (2) pathways (planning of ways to meet goals). Another meaning they ascribe to hope is that '*something that is desired may happen*'. If only for fleeting moments, these moments of hopefulness were precious and highly valued by parents. As noted by the specialist consultant and reported earlier, hope was '*a candle in the darkness*' that the families sought and needed. Of course, it is natural that parents will seek development in their children and indeed, take joy in each new milestone that is achieved, such as the first word or the first steps.

Families living with children that have endured a neurological assault, require long-term ventilation or those that live with complex chronic and/or life-limiting

disease have aspirations that are no different to other families. However, hopefulness is a crucial aspect of normalising their experience. Some authors suggest that hopefulness is a task that such families must achieve. The value that the music-making offered in terms of helping families become hopeful should not be under-estimated. Horton and Wallender (2001) have described hope and social support as resilience factors against psychological distress of parents caring for children with chronic physical health needs. Duggleby et al (2010) added that hope engenders a transitional re-focusing from the difficult present to a positive future offering dynamic possibilities with uncertainty leading to pathways of hope. Seen in this way, the Songbirds project offered engendered resilience and hopefulness, and by doing so may enhance the parents' ability to cope when in distressing situations.

Speaking about parenting her son with complex neurological difficulties, Farrell (2001) described looking for 'magic'; the meaning that this held for her was simply that someone '*got*' her and her son rather than tried to '*fix*' them (emphasis added). The analysis of the wealth of data collected for this study demonstrated in bucketfuls that the musicians '*got*' the children. They were not encumbered by the traditional and historic forms of doing things in a hospital with children that have become 'taken for granted' as patients. Nor were they engaged in traditional enculturated patterns of working. Time and again parents spoke about the music-making releasing children from difficult experiences. For some that had withdrawn, the music-making re-engaged them in a way that they could enjoy simply being children, doing what children do, and enjoying themselves in the process. By proxy, parents and staff derived enjoyment from this. It was beneficial for families simply to be understood.

Music (2009) and Hallam (2015) have argued that music can maintain and extend children's abilities in achieving normal growth and development. As discussed in the findings section of this report, combined sessions with the musicians and an occupational therapist lead to playfulness, this in turn contributed to recovery. Preti and Schubert (2011) concur by stating that music-making can create a positive space that promotes healing. Hallam (2015) goes on to assert that engaging with music-making activities over long periods of time can trigger permanent, beneficial effects on brain development. It seems then for the potential for hope to be realised through the music-making, frequency and regularity are needed to reap maximum rewards. Especially in respect for children with developmental delay and those with acquired brain injury.

Another study undertaken by McLean, Bunt & Daykin (2012) looked at the connections between music-making and hope in people living with cancer. They reported that music-making together offered a transformative opportunity to connect with others, engendering for many, a sense of hope. This is reinforced by Hallam (2015) who suggests that participating in shared music-making generates social cohesion and supports inclusion. A moot point for children in the Songbirds project.

It has been suggested that brain development is 'experience dependent' with positive experiences offering benefits which could impact on the long-term

outcomes for a child (Music, 2009, Hallam, 2015). Children are primed for new developmental experiences meaning that children's rehabilitation brings specific challenges both in limiting secondary damage but particularly in relation to the potential for interrupted development.

Finally, we found only two studies (in addition to Cavanagh et 2013) that considered the needs and experiences of bedside musicians. The musicians in this study reported tiredness and Preti and Schubert (2012) have noted the need to mitigate against burn out. The support mechanisms offered to the musicians in this study appeared to do this well. That said, Oakland (2012) called for more shadowing opportunities, seminars, discussion groups and workshops for Music for Health musicians. The musicians leading the Medical Notes (2) project had taken heed of Oakland's findings, the findings reported here suggest that musicians perceive a need for more still.

SECTION 6:

Conclusion

The Medical Notes (2) project achieved the aims of nurturing musical talent and potential for hospitalised children. There was strong evidence from observations and interviews that the bedside music-making sessions distracted children, helped them to cope with difficult situations and enhanced their resilience.

The Songbirds project had enhanced the communication skills, abilities and the development of the children with whom they worked. Some smiled for the first time, others, as noted earlier, were able to communicate in novel ways for the first time. Gross and fine motor skills were improved and social skills were also enhanced. The parents were delighted by these outcomes and reported glimpsing 'their child' that had been lost to them. Many looked forward with hope and planned to use their learning from the Songbirds project to enhance their communication with their children and their children's ongoing development.

There was clear evidence that the Songbirds project had helped parents to cope during times of extreme distress, and evidence from parents of their intentions to use their new learning with their children while in hospital to bridge the gap between hospital and home.

The musicians are firmly embedded and clearly accepted by hospital staff at all levels and by the children and families on the wards. The influence of the musicians was apparent for hospital staff who reported and were observed using the strategies learned from musicians to engage and communicate with children effectively.

The trainee musicians reported advances to their bedside music-making competence and skills and described how the learning from the hospital sessions had further enhanced their music ability and performance in other areas of their work. They had grown in competence and confidence, in music-making, supervision and mentoring. The apprentices have finished the year looking forward to becoming mentors for the next group of recruits. The mentors and supervisors are looking forward to developing more independent and autonomous practice.

SECTION 7:

Key Messages and Recommendations

Key Messages

The findings from this study add to the current body of knowledge relating to the process and outcomes of music-making with children in hospital and indicate that:

Child and family-centred care, control and empowerment are important concepts that are founded on trusting and therapeutic relationships. LIME Music for Health musicians offer a normalising, humanising and highly valued interaction with hospitalised children and their families; especially those enduring long-term and challenging complex health problems.

Music-making contributes to the health and wellbeing of hospitalised children and their families.

Music-making creates a safe space in which emotional expression can find a release. Both children and families can express joy and sadness. Such an emotional release was highly valued by parents and staff, and does not seem to be available through other means.

Music-making was child centred, enabling the musicians, parents and staff to gain an alternative insight into the child, enhancing their experience. It enabled some children to demonstrate their potential physical, cognitive, social and emotional capabilities.

The emphasis given to the connecting relationships between the musicians and children and families in the Songbirds project is of particular importance. The contact needs to be regular and predictable to be of the greatest benefit. The regularity of contact creates the opportunity for a deepening relationship within a safe space.

Music-making in the Songbirds project engenders hope, enabling parents and staff to glimpse the authentic child, with parents reporting that they sometimes glimpsed their child as they were before their illness or injury, or that they glimpsed who their child was or could become.

The music-making had an empowering effect, this is demonstrated in children leading the sessions and, at times, conducting the sessions, bringing them great pleasure and satisfaction.

The child's response to the music could be determined best when the musicians were intimately 'in tune' with the child's responses and normal patterns of expression. This was used as an indicator of the child's wellbeing and sometimes signalled a deterioration, leading to intervention.

It was evident that selection of children was in operation. These were likely to be at a tacit level at times but a complex gatekeeping process enabled some children and families to have greater opportunity for music-making than others.

The staff around the child learn new strategies in their ways of working in partnership with children and families as a result of the contribution to the child and family partnership.

The staff report that the joy of music-making impacted on their mood positively; creating a blanket of calm where they were able to relax and take pleasure in seeing the children enjoying a happy experience.

The music offered a more peaceful sound environment; children, parents and staff were offered an alternative experience and subliminally it was noted that voices were quieter and their focus of attention naturally shifted to the musical sounds.

The support offered to musicians should be maintained such that regular support, feedback and learning from reflection mitigate against stress and burnout.

Recommendations

Music for Health practitioners are a scarce resource and highly valued by many of the families with whom they work. It is clear that they cannot be everywhere nor work with all children. However, current funding arrangements jeopardise their future and impact negatively on their ability to meet regularly as team and provide regular music-making sessions for the children that may benefit most.

Music for Health practitioners would benefit from regular, pre-planned residencies in areas where children could benefit most (those with repeated or long-term conditions and those with challenging communication needs and those considered to be medically fragile).

The training model could be developed such that feedback, training events and reflection on practice remain central to facilitate musicians ongoing and future developmental needs. A more structured approach to mentorship with greater access to the expert musicians would benefit less experienced musicians.

The tacit gate-keeping currently in operation may mean that some children are inadvertently excluded from music-making sessions from which they could benefit. A communication strategy should be developed and disseminated across the Children's Hospital such that more children and their families can benefit from the offer.

Further research into the cultural acceptability and reach of bedside music-making is warranted to ensure that unintended exclusion is avoided.

Children with medical complexity and those considered to be medically fragile have multi-faceted and unmet needs in hospital. More research into the impact and outcomes of bedside music-making with this population is urgently required. This should focus on the cognitive, physical and communicative gains that may be realised with regular bedside music-making.

Children with medical complexity move between their own homes, community support services and the hospital. More research is needed to explore if the findings reported here are transferable to other contexts such as the child's home or school.

The Music for Health practitioners offer a unique and commended child-centred approach. The Young People's forum wield significant influence and could be invited to join the musicians team to offer guidance and steer the future of the project. They should receive regular updates on project reach and outcomes.

The views of children, young people and their families are a crucial in ensuring that the project focus is both acceptable and wanted. Feedback mechanisms currently in place (postcards) should be continued and

strengthened, with the results being fed back to the engagement team, commissioners, the CQC and children and families.

The tentative conceptual model presented here is grounded in the data, but remains tentative. The conceptual basis for this model needs further testing.

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Appendix 1

Scoping Review of Experimental Studies

A rapid scoping review of evidence was carried out to extend and update that carried out in 2012 and presented in the final report of 'The RNCM Medical Notes Project at The Royal Manchester Children's Hospital: Outcomes for children, families, musicians and hospital staff' (Cavanagh et al 2012). Here, we present a summary.

Children in hospital - following trauma

Hendon and Bohon (2007) observed 60 children aged between 13 months and 12 years, in a high level trauma centre in the USA, during play or music therapy. In play therapy children were free to play with a range of toys, crafts or books alone, with others or with a trained volunteer. The children could play for as long as they wanted with observed play times ranging from 20 minutes to 3 hours. The music therapy consisted of children actively engaged in music-making by playing maracas, drums, bells and shakers whilst the music therapist played a guitar and led singing. The music therapy lasted between 45 minutes to 1 hour. Both therapies were performed in the playroom, a place considered less threatening than others areas on the ward. During the play and music therapies the frequency of smiles was observed, which, for the purpose of the study was accepted as being an indicator of happiness. It was reported that the music therapy prompted approximately twice the number of smiles per 3 minute period than did the play therapy. The study concluded that music therapy could provide a means of improving the mood, psychological and physical well-being of children in hospital.

Children in hospital - pain and anxiety

The intrinsic link between anxiety and pain, most particularly the power of anxiety to exacerbate pain, is now well recognised in healthcare practice. It seems that the potential for music-making to help reduce anxiety and thus alleviate pain and distress in hospitalised children is increasingly recognised as a beneficial activity. In 2008, Klassen and Liang et al., published a systematic review of randomised controlled trials which assessed the effectiveness of active and passive music

therapy on pain and anxiety in children undergoing anxiety provoking clinical procedures. The quality of the studies included in the review was assessed using the Jadad scale⁴ to scrutinise the process of randomisation, double-blinding, withdrawals from the study and loss to follow-up. Analysis of the studies included in the review demonstrated that both active and passive music therapies were equally effective in reducing anxiety and pain in children during clinical procedures. It was concluded that music therapy could be considered a valuable adjunct therapy in clinical environments where children are likely to experience anxiety and pain. In 2009 Nilsson, and Kokinsky et al., conducted a study in Sweden to investigate whether postoperative music listening, or '*music medicine*', reduced morphine consumption, pain, distress and anxiety after minor day surgery. A total of 80 children between the ages of 7 – 16 participated in the study. Of these, 40 children were randomised to the music listening group; these children were played soft relaxing music for 45 minutes postoperatively. The other 40 children were assigned to the control group; these children did not listen to any music postoperatively. Pre and post-test comparisons of self-reported pain, distress and anxiety measurements were obtained using the Colour Analogue Scale (CAS) pain intensity score, the Facial Affective Scale (FAS) to rate levels of distress and the State-Trait Anxiety Inventory. The children were also observed by researchers and nurses who recorded the Faces, Legs, Activity, Cry and Consolability pain score (FLACC), respiratory rate, heart rate and oxygen saturations. The children in the music listening group were interviewed over the telephone the day after surgery. The results showed that children in the music listening group received significantly less morphine than those in the control group. Children in the music listening group also demonstrated significantly higher individual decreases in FAS scores used for rating distress. Qualitative analysis of interview data led to the conclusion that the music was received by the children as a welcome, distracting, relaxing and calming influence.

In 2013 Colwell, Edwards et al., carried out a feasibility, pre-test / post-test group design study to compare the impact of three music therapy strategies on

⁴ The Jadad Scale is used to assess the quality of RCTs

physiological and psychosocial behaviours in 32 children. Aged from 6 to 17 years, the children were inpatients, with a range of medical and surgical conditions, admitted to a children's unit in a large teaching hospital in the USA. The children were allocated to one of three groups: music listening of CD's; music composition via a computer and an Orff-based approach to music therapy. The Wong-Baker FACES Pain Rating Scale was used to measure pain and the STAIC was used to measure anxiety. In keeping with the results reported by Klassen et al., (2008). Children taking part in music therapy in all three groups demonstrated a slight trend of decreasing pain and anxiety levels from pre to post-test measurements.

It is well documented that certain medical and nursing procedures are painful and despite best efforts and pharmacological interventions to relieve the pain they may well still prove painful and provoke anxiety. One such procedure is changing children's skin donor site dressings as part of burn injury treatment. The effectiveness of music intervention on pain and anxiety during such procedures may however be difficult to quantify.

In 2006 Whitehead-Pleaux, Baryza and Sheridan carried out a randomised controlled study to ascertain the effects of music therapy on the pain and anxiety experienced by children, with burn injuries, during skin donor site dressing changes. Fourteen children from the age of 6 – 16 years participated in the study in the USA. Six children were in the experimental group, they had music therapy interventions during the dressing change. The music therapy intervention involved the children selecting songs from a list prior to the dressing change. During the dressing change the music therapist sang the chosen songs and played the guitar whilst prompting the children's participation and improvising in song to support and praise the children. The music therapist spoke to the children in the control group about their interests and supported them in words rather than music during the dressing change. The Wong-Baker FACES scale was used to measure perceived pain, the Nursing Assessment of Pain Index (NAPI) was used to rate the behavioural distress, the Fear Thermometer was used to measure perceived anxiety, and physiological measurements of heart and respiration rates were recorded. Whilst it was expected that music therapy

would help to reduce anxiety and pain levels the researchers warned that no clear conclusions could be drawn from the results. The NAPI score revealed that significantly more distress was experienced by the experimental group compared to the control group. However, analysis of pain scores demonstrated no statistical differences between the two groups. Analysis of fear and anxiety scores indicated that the experimental group was significantly more anxious before and during the procedure but that their anxiety scores were similar to the control group at the end of the procedure. These results are counter to those discussed in the earlier studies cited here. Whitehead-Pleaux et al., (2006) advise that future quantitative study designs need to be informed by a clearer understanding of the effects of music therapy on the pain, distress and coping behaviours of children during painful procedures gained by qualitative means. It is anticipated that such qualitative data could aid the identification of more precise and relevant qualitative measurement tools.

In 2009 Yu, Liu and Ma carried out a randomised controlled trial in China, to investigate the impact music had on the anxiety and pain experienced by children with cerebral palsy, whilst receiving acupuncture. Sixty children, aged from 2-12 years, participated in the study. The children were randomly allocated to one of two groups. Children in the music group selected 10 songs, from a menu of different songs, which were compiled on a CD and then played for 30 minutes during their acupuncture session. Children in the control group were not played any music during their acupuncture session. Data related to the measurement of pain and anxiety was collected using the Mypas, CHEOPS, and FACES scales and physiological measurements of mean arterial pressure, heart rate and respiration rate. Statistical analysis was performed using the SPSS programme and an ANOVA test. The results revealed that listening to music during acupuncture was found to relieve the children's anxiety but did not reduce their experience of pain; a result the researchers describe as '*unexpected*'. In discussing the limitations of the study the researchers highlight the power of the emotional component of the pain experience and the complexity of assessing children with cerebral palsy due to '*disturbances*' attributed to their condition relating to their perception, sensation, cognition, communication and behaviour. Understanding how a child with special needs perceives, senses and

understands their world may therefore be an essential precursor to judging the impact that any music intervention has on their experience.

In contrast, the creative use of music in hospitals has generated evidence of its positive impact on children with cancer helping them to become more resilient to stress during hospitalisation. A randomised controlled trial was conducted to investigate the usefulness of an active music engagement (AME) intervention on the coping behaviours of children with cancer in a hospital setting (Robb et al 2008). Eighty-three participants aged 4 to 7 years, from oncology inpatient settings in six hospitals in the USA, were randomly allocated to one of three groups. In the AME group children were given the opportunity to actively engage in age appropriate music activities using a choice of hand held rhythm instruments, an acoustic guitar, illustrated song books, puppets and plastic animals. In accordance with a specific procedure, music therapists actively engaged the children in music-based activities prompted by and responsive to the children's comments and actions. The second and third groups were given more passive music-based activities. The second group of children were asked to listen to music on a compact disc. The third group of children were given illustrated storybooks with audio-taped narration. The music-based activities were videotaped to allow the collection of coping related behaviour, such as positive facial affect, active engagement and initiation. The AME group demonstrated the highest mean frequency score for positive facial affect and active engagement. In contrast to the findings reported by Whitehead-Pleaux et al., (2006) the findings reported showed that children who were exposed to AME intervention demonstrated significantly higher frequency of coping related behaviours during the intervention than the other two groups whose music-based activity was passive (Robb et al, 2008).

Music and Rehabilitation

Music has been used with children with disabilities to aid their rehabilitation. Chau and Eaton et al (2006) developed a computer-mediated augmented environment / music instrument for children with motor deficiencies. The instrument motivated children to use their body movements to make music. Fifty children, from the age of 3 - 12 years, used the instrument. The instrument was found to encourage the

development of motor and visuo-perceptual skills and also reduced the dependency of the children on the care-giver while playing music. A review of the evidence, non-specific to children, relating to music therapy for patients with an acquired brain injury carried out by the Cochrane Collaboration in 2010 concluded that music as rhythmic auditory stimulation may be beneficial to improving motor and gait deficits. Evidence on the impact of music therapy on other outcomes for patients with acquired brain injury was found to be lacking and presents as an area requiring investigation.

In patients who have a traumatic brain injury or those in a persistent vegetative state the impact of music listening has been measured by their heart rate response. The participants in an Italian study included healthy adult volunteers, adult patients in rehabilitation, with residual disabilities, following traumatic brain injury and adult patients in a persistent vegetative state. All participants listened daily, via earplugs, to selected music samples expected to elicit various emotional responses. Complex analysis of the data led to the somewhat vague conclusion that there is '*potential*' for complex emotional stimuli, such as music, to be reflected in heart rate variability (Riganello, Quintieri et al, 2008 and Riganello, Candelieri et al, 2010).

Children in Intensive Care

A literature review of evidence relating to the psychophysiological effects of music therapy in intensive care units was carried out by Austin in 2010. The review established that given the lack of evidence, relating to children as a specific client group in intensive care, a decision on the influence of music therapy to children in intensive care, could not be concluded. A review of the evidence, non-specific to children, concerning music interventions with mechanically ventilated patients was carried out by the Cochrane Collaboration in 2010 (Bradt, Dileo and Crocke 2011). Similarly, the Cochrane review concluded that whilst music listening may be beneficial to reducing anxiety, heart and respiratory rates in mechanically ventilated patients, the overall quality of the evidence is poor and limited by small sample sizes and the use of pre-recorded music. Of interest is their call for more research to examine the effects of music

provided by a trained music therapist on patients who are mechanically ventilated.

Overall, the level and quality of the evidence relating to this highly specialised field is poor, meaning that implications and lessons for practice and practitioners need to be treated with caution.

Music-making with hospitalised children: outcomes for children, families, hospital staff and musicians from LIME Medical Notes (2) and Songbirds projects

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