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Music in Healthcare evidence review

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Introduction

Music is a huge part of all our lives, providing the soundtrack to the events that occur – no matter how big or small. For some, it is used as a mood regulator (Shifriss *et al.,* 2015); for others, as an accompaniment to mundane everyday tasks such as the daily commute or doing the housework (Clarke *et al.,* 2010). It can provoke powerful emotional reactions (Juslin & Sloboda, 2001; Koelsch, 2014) and is often associated with nostalgia (Janata *et al.*, 2007; Barrett *et al.*, 2010). It often reported that music shares close links with the development of early language and literacy skills (Chen-Hafteck, 1996; Anvari *et al.* 2002; Pitts, 2016), and that caregivers to infants instinctively use musical techniques as both a nurturing developmental tool (Papoušek, 1996), and as a means of bonding with their child (Malloch, 1999). In adolescence, popular music is a prominent factor for a young person's identity formation (MacDonald *et al,* 2002), and in adulthood, participation in amateur music-making can provide a sense of belonging and purpose, as well as an escape from everyday life (Pitts, 2005). In old age, creative pursuits such as music or other art forms can keep the mind active (Fisher & Specht, 1999), and avoid feelings of loneliness (Hays & Minichiello, 2005). In cases of dementia, the ability to recall melodies and words to songs have sometimes been found to remain intact, making music a powerful tool for therapy with these patients (Cuddy & Duffin, 2005; Simmons-Stern *et al.,* 2010).

It makes sense, then, that music should be so meaningful during one of the most difficult times in a person's life: that is, if they were to be unwell. The provision of music in healthcare settings is a growing area of practice. Notably, Youth Music's investment in projects delivering music-making activities in healthcare settings has increased in recent years, totalling over £900,000 across eleven different projects in the past three financial years. In the same time period, an additional £188,000 has been invested in projects working in mental health settings. Healthcare commissioners are increasingly recognising music and the arts: for example in 2015 the NHS Gloucestershire Clinical Commissioning Group invested £150,000 in a feasibility grants programme to look at ways of embedding arts and cultural activities within the NHS's physical and mental health services across the county[1]. The practice is also receiving parliamentary attention: the All Party Parliamentary Group for Arts, Health and Wellbeing was formed in January 2014, and they have since launched a two-year Arts, Health and Wellbeing Inquiry in collaboration with King's College London, funded by the Paul Hamlyn Foundation and the Wellcome Trust.[2]

There are a number of studies by academics whose findings suggest that musical interaction and participation is beneficial in healthcare settings. However at present the academic evidence is limited. This evidence review seeks to draw together the academic research relating to the benefits of music in healthcare settings alongside evidence produced by Youth Music grantholders undertaking such work, to understand more about the extent and type of impact arising from this growing field of practice.

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[1] http://445oon4dhpii7gjvs2jih81q.wpengine.netdna-cdn.com/wp-content/uploads/2016/01/NHSCC-Delivering-a-healthier-future-FINAL.pdf, accessed online 03/03/2017
[2] http://www.artshealthandwellbeing.org.uk/APPG, accessed online 03/03/2017

Methodology and scope

The following evidence review was put together by Katy Robinson, Youth Music's Research and Evaluation Assistant. It includes a short exploration of available literature, followed by analysis of evaluation reports and case studies submitted to Youth Music from funded projects working in healthcare settings. Existing literature was sourced through academic journals (both online and in print), the websites of Youth Music grantholders, and blogs/links on the Youth Music Network. With the exception of a small number of articles, there is an absence of academic literature focusing only on children, so most of the existing literature selected for this report concerns adults who have taken part in controlled studies. Similarly, there are fewer published academic research reports of studies undertaken in hospitals or other healthcare settings than in controlled environments. However, much of the literature reviewed in this report demonstrates the ways in which music can have a positive effect on physiological symptoms.

The evidence reviewed here is taken from information submitted by eight Youth Music funded projects, delivered by seven separate organisations: 12 milestone and final evaluation reports, and eight case studies. The projects started up to five years before this review was written, and the reports were all submitted within the past three financial years.

Youth Music staff read the reports and analysed them using qualitative analysis software, which enabled common themes appearing across the different projects to be identified. In order to preserve anonymity, quotations from submitted reports are referred to by a number which appears in square brackets after the related text. Participants' and music leaders' names have been changed to initials, and any other information which may identify the organisation or its project participants has been changed.

Youth Music supports a wide variety of music projects every year, supporting children and young people experiencing many different challenging circumstances. Music-making for those receiving treatment in a healthcare setting is just one of the types of projects funded by Youth Music, and as such, the sample size is representative of only a small number of Youth Music projects overall. This report concentrates on healthcare settings that primarily treat physical problems: intensive care units and children's wards of hospitals. In addition to other non-health related areas, Youth Music also funds work in clinical and forensic mental health units, but due to the variety and reach of these projects, they have been excluded from this report, (and will be examined separately at a later date).

Summary of published research findings

There are a number of studies from both healthcare and non-healthcare settings that are relevant to this report. A number of studies suggest that listening to music can lower the physical manifestations of stress and anxiety in the body. Gupta & Gupta (2015) found that music had a significant effect in decreasing blood pressure and heart rate in male coronary patients. This has parallels with Knight & Rickard's (2001) study of male and female undergraduates in which exposure to music was found to help prevent symptoms of physiological stress (including raised heart rate and blood pressure) when they were exposed to a stressful activity. Finlay & Rogers (2015) found that when paired with an active distraction technique such as progressive muscle relaxation, listening to music reduced anxiety, enhanced pain tolerance, and minimised pain perception. Nilsson *et al* (2009) found that distress and morphine requirement in children who had just come out of an operation were lower after exposure to music. Similarly, Preti & Welch (2004) found that the presence of guitar music during aspiration treatment of a three-year-old leukaemia patient reduced her stress levels and perception of pain.

More generally, the presence of music in any form can greatly enhance people's wellbeing and quality of life. This is demonstrated not only by the numerous studies and reports of music increasing participants' sense of belonging (Bailey & Davidson, 2002; Pitts, Robinson & Goh, 2015) but through observations such as those of Clarke, Dibben & Pitts (2010) who comment that music has been known to enhance everyday tasks like housework, and reduce stress levels in certain work situations. It also plays an important part in relationships – studies have found that similar musical preferences can be related to the formation of friendships, particularly in adolescence (Selfhout *et al*, 2009), while studies on amateur music-making in later life have concluded that making new friends tends to be the leading reason cited by participants for their involvement (Southcott, 2009; Kokotsaki & Hallam, 2011). Improved wellbeing through music also extends to the physical - several studies have found that rhythmic movement to music can play an important role in the rehabilitation of patients suffering from loss of motor skills (Schaefer, R., 2014; Yoo & Kim, 2016).

The above review of existing literature states just some of the ways in which music can be crucial in healthcare and wellbeing contexts. What follows is a summary of the work being done in these healthcare contexts, after which there will be a review of the evidence submitted by Youth Music grantholders delivering this kind of work over the past five years. It will explore the most common or noteworthy outcomes of the work and attempt to evaluate the effectiveness of music in healthcare settings.

Context of the work

Live music in hospitals has become increasingly common since the introduction of musical entertainment for wounded servicemen in military hospitals during World Wars I and II. Following the realisation that these concerts had a therapeutic effect on patients, the Council for Music in Hospitals (CMH) was launched in 1948, and they began providing concerts of "serious classical music" in large halls in hospitals. The purpose of this was different to that of music *therapy* - CMH intended to provide hospital patients with musical entertainment that had '*therapeutic and well-being outcomes*'[3] - but CMH worked closely with music therapy charities to deliver this entertainment. What has developed since is almost a combination of the two: however, there is a difference between trained music therapists and what some refer to as 'untrained musicians' – a comparison which still brings confusion, as a musician may have been trained to work within health and wellbeing contexts without specifically being a music therapist (Hawley, forthcoming). Since its establishment in 1998, French organisation Musique et Santé has been advocating for and working towards the development of music in hospitals, through research work and providing training sessions. Many training programmes informed by the responsive model developed by Musique et Santé have recently appeared in the UK. These tend to differ from more formal, accredited versions of music therapy training, instead focusing on different approaches to musical actions in healthcare settings, developing skills in interacting with patients and their families, and understanding the importance of partnership and communication with care staff. One example is the LIME/ Royal Northern College of Music (RNCM) Music for Health programme, which gives students at the RNCM conservatoire the opportunity to undertake intensive training in *'interacting musically in a different environment'* before putting their newly learnt skills into practice during placement sessions at the Royal Manchester Children's Hospital (Hawley, 2014).

Musicians working in hospital settings are mindful of the challenges associated with this area of practice. While there are some treatments and procedures for which healthcare staff would welcome a musical intervention alongside their work, there are likely to be certain situations in which this would not be appropriate: musicians have to blend in to the environment and work around others. As Hawley notes, there is a *'pre-existing auditory environment'* in hospitals and wards, where machinery (for example a heart rate monitor) is tuned to a distinctive pitch and timbre in order to signify any changes in the patient that need attention. Any additional music or sound needs to be played in a way that sensitively responds to such an acoustic, and it is obviously imperative to ensure machinery sounds are not drowned out – instead music could work to soften them.

It is important to contextualise the work that was delivered by Youth Music funded healthcare projects in terms of the specific challenges faced by the participants. In particular, receiving treatment in a healthcare setting (either for a short or a long period) can cause a lot of pain and stress, and this issue is commented on widely in the reports from projects:

> "These young people suffer from complex health conditions which means they are often in pain and discomfort and undergo frequent clinical interventions. They have very few activities available to them and the permanent residents very rarely leave the unit." [2]

[3] http://www.musicinhospitals.org.uk/about/, accessed online 06/03/2017

> “Due to I’s 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.” [3]
>
> “Many of the children in these wards are extremely unwell and in pain. Some children may be in the hospital for short periods of time while other children may be in the hospital for years, or may never live at home. Spending prolonged periods away from their family and friends often is a very stressful, frightening and lonely time for them. Being able to develop personal and social skills, socialise, make friends, and do activities many healthy children are able to participate in and take for granted is often very difficult. As a result, they lack opportunities to develop many skills such as confidence and self-esteem they need for later in life.” [1]

The quotes above demonstrate the wide variety of difficulties faced by the young people and their families involved in these projects. For some children, even being able to sit up in bed for ten minutes and take part in a short musical activity is extremely difficult – although this does not mean these children cannot still benefit from the activities happening around them. Other children are able to sustain their engagement in the activities taking place for longer, taking a more active role in the musical dialogue. For all situations, there is strong evidence presented in the reports to suggest that progress was made towards Youth Music’s five outcome areas - musical, personal, social, workforce and organisational - as well as some outcomes that are more specific to the context of healthcare.

Summary of outcomes

Musical

While work in healthcare settings tends to focus primarily on health and wellbeing outcomes for ill children, evidence to suggest progress towards additional musical outcomes nevertheless occurs in numerous reports. In projects working with young people with less complex physical needs the musical outcomes might focus more on the building of skill, whereas here the musical outcomes tend to be interlinked with softer outcomes such as having the confidence to choose their own instrument, or deciding which song they'd like to play:

> "From at first just watching us and our instruments […] this little girl has begun to use her voice, initiate that she wants us to go and see her – reach out for instruments to play, make choices as to which ones she would like, and interact with us, she anticipates the activities that we offer, and enjoys touching instruments together with us […] she has no fear and is keen to display her newly found assurances and musical skills with whoever might be around – mum – nurses, doctors, cleaning ladies – she does in fact steal the show."[3]

> "S was keen to choose songs he knew from before and also ones he had learnt from us. He couldn't always remember the titles and would say "I want to sing the boom boom boom song" when he meant 'pirate ship', but he was clear and able to make decisions. Gradually he found his singing voice and sang "off we go" and then more and more of the actual songs."[1]

> "This sensitivity of approach supports [children and young people] in 'gaining confidence in their involvement'. Another medical student commented that it was "nice to see the children trying out different instruments, finding their own rhythms and directing the music themselves"."[3]

Also prominent in several reports were stories of the music being used as a communication tool, with examples of children who had trouble interacting verbally developing their own communicative musicality:

> "We have developed a repertoire of sounds – from clicks to kisses, to raspberries to blowing bubbles – all from working with and interacting with the children using a musically structured framework that provides opportunity and invitation for musical conversations and exchanges – 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." [3]

> [A vocal tutor was quoted as saying:] "Over two years Child A has developed from not talking, to speaking, to singing. The singing has started in the last month, and there are elements of accurate pitching and timing."[1]

In the case of music in healthcare projects, musical outcomes seem to be outweighed by many of the other outcome areas in terms of evidence to suggest real change. However, the above

examples show how these children, despite illnesses preventing them from taking part in many day-to-day tasks, have managed to develop musically as a result of the musical intervention during their time in hospital. Some children are reported to be hoping to continue engaging in musical activity following their discharge from hospital:

> "Several young people who have attended the project have been signposted on to music-based activities in the community after their discharge from hospital. The project leaders are working towards signposting more young people at the project end, as a high number of young people have indicated that they would like to continue with activities similar to those they have experienced in the project, once they leave hospital. Of the 47 young people, 31 indicated they would like to access a group or activity in the community as a result of attending this project." [7]

Personal

A commonly reported outcome of the projects discussed here was that the children taking part in the activity enjoyed themselves: important at a time when a young person in hospital is likely to be undergoing stress, boredom, and heightened emotions. For some children, the music session may be the only enjoyable thing they are able to take part in, while for others, music forms part of a programme of activities they are able to participate in throughout their stay in hospital. Regardless of how often children participate, sometimes a smile at the end of a difficult week is one of the most valuable outcomes of a project:

> "Verbal [children and young people] commented on the positive impact of the music on their experience of hospitalisation – "that music has made my day in hospital" (teenage boy) […] whilst non-verbal children with complex needs displayed their enjoyment in other ways including gurgling, clapping and rocking. "It's the first time he's smiled in 3 weeks." (Grandmother of young boy)"[3]

> ""It has been extremely good for him, brought him out of himself. He has been here since November and knows that Friday is [name of project] day and he looks forward to it." […] "Parents have commented that their children really like [name of project] and that it is their favourite thing to do on the ward. I have noticed that patients are more eager to get up out of their beds when they know that [name of project] is about to start and it is really nice and also beneficial to get the children all together in one place, especially when it is something fun.""[1]

Every report examined had something to say on the topic of children, parents, and/or hospital staff enjoying the music and the atmosphere it provided, making the above outcomes extremely worthwhile. The theme of having fun and feeling removed from the negativity of a hospital environment is revisited later on in this report.

Another very commonly reported outcome area relates to intrinsic personal outcomes, encompassing young people's sense of self-esteem, efficacy, and self-assurance, alongside their overall happiness and wellbeing:

> "One lad in particular has really come out of his shell and is clearly excited about what happens in the session.[…] [Hospital] staff have commented on how much the [young

people] look forward to the sessions and in particular how this one lad has done things in the group that they have been surprised by or not seen before."[2]

"J gets really down when he is in hospital because he sees other children and he can't do what they can do, but he gets so excited about [the music] – the first time he did a session with them he was beaming."[4642]

Some reports discussed the more extrinsic personal benefits that the projects have had on children's interaction with school topics – at a time when their levels of engagement with school may understandably be lower, music leaders and hospital staff have noticed instances when the musical intervention has made this easier or more exciting for children:

""One young person was, at the time, refusing to engage with school or any therapeutic work attempted by ward staff. However, when the music group was suggested she was instantly excited by the idea, and was by far the most consistently enthusiastic member of the group for its duration […] since then she has gradually been able to engage more with other therapeutic activities - and is now even beginning to consider attending school once more." (Staff Nurse)" [3]

""Teachers and play development workers explained that [project name] games are an excellent way for the children to do activities linked with school topics. They also explained that the sessions are a very good way to bring quieter children out of their shell as they participate, by playing instruments and making decisions." (Vocal Tutor)" [1]

It is also worth pointing out (although this was not mentioned in the reports) that for many children, engaging in musical activity may be one of the only activities they have the choice to opt out of. At a time when children are likely to be subjected to painful or uncomfortable treatments that they do not have the option to avoid, being able to decline the offer of musical participation is another extremely important factor of this work, as it gives them the autonomy to decide for themselves whether they'd like to engage.

Social

The challenges faced by children who are unwell and staying in hospital for a prolonged period do not stop with the illness itself – they risk missing out on many experiences such as attending school and making friends. Many of the music-making sessions took place with individual children, but there were also some group sessions on offer. For children participating in group work, the music sessions may be the only chance they get to interact with each other.

Several organisations reported that music-making activities created a sense of community on the ward between the children, and that observing children get out of bed and interact with one another when they were able was encouraging for all to see.

"Importantly, sessions in communal areas encourage children to get out of their hospital beds, and go to the playroom, which is very positive medically and socially. For example, group sessions often take place on the oncology ward, which provide the

opportunity for children to sing and play together, sometimes whilst they are having their chemotherapy treatment."[1]

""I realised that children in hospital meet a lot of new people each day from the multi-disciplinary team that cares for them. I wrote [a song called] 'Say Hello' to try and alleviate some of the anxiety around meeting new people in hospital for children, through the medium of music. […] When we first played the song on the ward the children waved along and relaxed with the music just as I had envisaged. It was immensely gratifying to see the smiles on their faces and their parents too." (Music leader)"[3]

A less common, but nonetheless important outcome discussed by some organisations was the impact that music-making sessions had on the relationships between sick children and their parents in such a stressful environment:

""I think that it is a fantastic distraction for the children from their treatment and is a lot of fun too. It also gives the parents something else to focus on and an activity for them to join in with. […] I also often hear parents singing the songs with their children when [name of project] is not on the ward which is nice to hear as it shows that the parents and children really appreciate and enjoy the songs that [name of project] sing." – Nurse"[1]

"J consistently vocalises during the music and seems to be aware of when her vocalisation is imitated. […] At one point mum said, 'Are you singing, J?' 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. The film of J and mum dancing together, holding hands over the bedside, completes our story of getting to know J; our work is done for that day and we allow space for mum and daughter to be together." [3]

It is obviously extremely difficult for a parent to see their child ill or in pain, and in several cases music-making sessions not only provided a welcome distraction to parents who were experiencing high levels of emotion and stress, but also relief when they witnessed their children interacting with the musicians. Projects reported that having music present in the hospital environment made it much more pleasant to be in, encouraging people to laugh, smile, and talk with one another:

"The effects on members of the community who already had engagement with the hospital (i.e. patients or their families/carers) were positive – these individuals had a positive experience in the hospital due to music (as shown by the feedback forms)" [5]

"Parents stated that the music-making activities were a great idea; often stating that it was a highly pleasant surprise to find a waiting room at hospital so enjoyable and inspiring; and turning a traumatic time into a fun experience, increasing children's confidence in the hospitals." [4]

Workforce

When talking about workforce outcomes in the context of projects funded by Youth Music, we often think first about the skills, knowledge and personal development of the project team - for example, music leaders, project managers/administrators and volunteers. However, the impact of a project often extends beyond the immediate workforce, and will often benefit the staff working at a particular setting as well. In the case of healthcare settings, this means that the funded projects can have an impact on doctors, nurses, surgeons, teachers at hospital schools, play development workers, and possibly others not mentioned in the reports reviewed. Each different member of this workforce has a very important role in helping ill children to become well again, and although the most immediate beneficiaries of the funded work are the young people being treated, the projects have also reported a number of outcomes for the adults supporting them.

By far the most commonly reported workforce outcome in the reports was the feeling that music leaders were learning something new, and growing in confidence when it came to their capacity for working with children in these particular circumstances.

A number of activities contributed to this outcome. Many projects included continuing professional development (CPD) sessions, with not only music leaders, but also hospital staff reporting a change in skills and attitude as a result of the training they received:

> “Apprentices noted that their confidence “has grown absolutely in many aspects – musically, interactively, in encouraging participation, in holding myself in hospital.” (Apprentice Music Leader 1) and the project helped them to become “more flexible and less set in my ways.” (Apprentice Music Leader 2)” [3]

> ““A very enjoyable and uplifting session. I came away even more convinced about the value of music in the hospital setting and the INSET increased my confidence to be able to teach a child a music lesson.” (Staff member, Nottingham Children's Hospital). “Hospital staff became increasingly actively involved in the music-making sessions alongside our musicians. This is supported by the musical instrument resource permanently placed within each hospital with practice taking place outside of our visits.” [6]

> “‘Expectation’ has been a recurring theme throughout the programme. Training practitioners often advise trainees to ‘expect nothing’ […] However, this attitude can sometimes manifest in the musicians not presenting enough musical information as they enter a space or providing enough time to let people simply enjoy watching and listening to them playing together as experienced professionals before being invited to participate. Through role-play, the team were able to experiment with more performative modes of entering spaces whilst still being incredibly sensitive, making eye contact with each other and showing their enjoyment of making music together before inviting participation from those in a room.” [3]

Alongside the skills acquired by music leaders and hospital staff in CPD sessions, many also spoke of the opportunity to share learning with those of either the same or different disciplines, developing different ways of thinking about how music and healthcare interact and work together. Similarly, one project discussed the other benefits of visiting musicians communicating

with each other after delivering a session – not just to share practice and improve their skills but also to maintain their own wellbeing and discuss anything that may have had an emotional impact on them:

> ""There has always been such a divide between the arts and science, as if these were two opposing fields that could never integrate. This placement has been incredibly eye-opening in that it changed my perspective and I saw that there was not only an essential link between the two worlds but that they each had unique benefits to offer to the other."" [3]

> "Whereas in other healthcare settings musicians are working in pairs and therefore debrief together after each session, here, the musician is lone working and therefore does not have a colleague with whom he can reflect and 'unhook' from the work. We have carried out further consultation around this with the whole team and from Summer Term 2015, plan to offer optional Clinical Supervision sessions with an external provider when musicians feel they need that support and in particular, when they are lone working in very impactful settings."[2]

Those delivering the projects needed to adopt a very sensitive approach to each individual child, parent/carer, and healthcare practitioner's situation, and maintain awareness of the fact that some children are unable to join in with the activities or might be uninterested in doing so – a challenge that some music leaders may not have experienced before. It would seem that for many staff members involved with the projects reported on here, this was their first (or one of their first) venture(s) into music in healthcare settings – whether they were a musician in training, or a hospital worker who had rarely come into contact with visiting musicians on their ward before.

What is clear is that the projects reported on have affected positive change in the confidence levels and attitudes of many, and that cross-discipline CPD sessions have facilitated interesting discussions and sharing of practice between members from all areas of the workforce helping young people in hospital.

Organisational

The most commonly reported activities to foster organisational outcomes centred around practice sharing, often at conferences. In some cases, such activity was reported to instigate cross-disciplinary conversations and partnerships:

> "[We] shared practice […] at a regional paediatric conference exploring current and recent research. This involved many senior, junior and student doctors, for many of whom this would have been their first exposure to this practice. This has led to an interest from medical staff to engage [us] in clinical-led research studies on the effect of Music in Health practice, along with increased engagement from medical staff during the practice." [6]

> "Publications/presentations for UK Association of Music Education and SEMPRE established our presence in the field of music education and R will present her work as part of the medical ethnomusicology panel for the 60th SEM conference in Texas (December 15). […] Presentations at national nursing conferences raised awareness of our work in the clinical arena. We will work closely with all partners over the next two

> months to devise and implement a robust dissemination plan spanning academic and cultural networks."[3]

Organisations' presence at these conferences gives them and their work exposure to others in the field. The resulting multi-disciplinary conversations seem to have become the start of a wider conversation, with further exploration and research being planned, and closer partnership-working taking place. From these discussions and through disseminating evaluations of their own work, organisational reflection has improved, with the information acquired from the process feeding back into learning and practice:

> "The video documentation and publication of this practice has enabled [our] musicians and other stakeholders to benefit from a much wider range of feedback, from a broad cross-section of society who have been able to access practice through this resource. Internal reflection on captured film has supported the development of our reactions to the verbal and non-verbal language of the children and young people with whom we work, ensuring that our ability to respond appropriately to the personal and musical needs of the individual continued to develop. Visitors to the project have commented on how quickly and seamlessly musicians seem to respond to the smallest of cues from children and young people."[6]

The final important organisational outcome, discussed by one project in particular, is the development of progression routes for children to continue making music when they leave hospital as a result of forging partnerships with other organisations in the area:

> "Involvement in further community music opportunities for young people participating in this project has also been discussed in clinical forums at the hospital and in some cases included in young people's discharge plans. For example, following some young people's engagement in the project opportunities for progression to other community music activities have been explored and set up in their locality." [7]

It is difficult to track the progression of these young people when they are no longer in contact with the hospital or the organisation running the music activity on the ward. Nevertheless it is promising to see organisations networking with one another in order to sustain young people's participation in music-making following their discharge.

Healthcare-related

Overwhelmingly, the most common theme emerging from all reports did not align with Youth Music's outcomes framework, but featured in every report reviewed (multiple times in some). This was that the music activity simply made life in the hospital a little bit easier – for staff, patients and parents. This is usually because it made patients happier and alleviated boredom, but it was also often referred to as a useful distraction technique when carrying out treatments or examinations:

> "Parents stated that the music-making activities were a great idea; often stating that it was a highly pleasant surprise to find a waiting room at hospital so enjoyable and

inspiring; and turning a traumatic time into a fun experience, increasing children's confidence in the hospitals." [4]

"On one occasion when she was in the High Dependency unit, a surgeon came to discuss a procedure with her mother. We offered to leave them if need be but both the surgeon and the mother said to stay. The mother hoped we would distract [the child]. The examination was painful and she was very distressed. They needed to talk in depth afterwards and we sang with the child and played singing games. The surgeon said before he left "you guys are amazing! You are so good at distracting with something so nice as singing. I'd like to take you round with me all the time."" [1]

Report authors sometimes noted minor changes in condition or reactions as a result of the musical intervention. Rather than huge breakthrough moments, these reactions tended to be small but noticeable improvements in certain physiological symptoms such as heart rate, showing relaxation:

"On one occasion a student nurse, new to the ward, observed as the musicians played for and sang to a male patient who has been hospitalised since birth for five years – the most complex patient the musicians worked with during the residency. […]She told the musicians that she had been watching the monitors all the way through the interaction and could see that the patient had relaxed significantly during it. She had not seen music on the ward before and the interaction had a clear impact on her." [3]

"Parents appeared encouraged to see their baby listening to the music (which was very apparent to me). I also noticed expressive gestures with hands and feet [in] response to the music, suckling mouth movements and decrease in heart rate on occasions, which would be useful to capture in future research as these are positive signs in neo-natal care."[2]

""Very beneficial for our baby. His saturations were high numbers, which tells me he was enjoying the music. Thank you." – Parent" [6]

Reactions such as these show that, although music is very unlikely to be the sole intervention prompting a person's recovery, the presence of music in the hospital environment can be very beneficial - not only for the patients themselves, but for the family and friends around them and even the doctors and nurses treating them. The positive outcomes of music in hospitals can range from small details such as relieving the tension in the hospital waiting room or distracting a child while they have an injection, to more noticeable improvements in a child's physiological symptoms, levels of relaxation, or overall experience of an otherwise stressful or difficult stay on a ward.

Conclusion

This review has explored some of the benefits of providing musical interventions for ill children and young people in hospital. It has examined reports submitted by arts organisations supported by Youth Music to deliver this kind of work, and it has identified some of the key outcomes emerging from the projects. The conclusion resulting from this work is that music can play a key part in improving a young person's stay in hospital; supporting personal development, socialisation and interaction with other children on the ward, providing distraction from painful or uncomfortable procedures, and relieving boredom and tension.

The results of the work extend beyond the child's experience - the adults around them have also been proven to benefit from the projects discussed here. Parents of ill children have been able to bond with them in new ways, and in some cases, see them responding to the musicians and having fun. Hospital staff have found new ways of making their jobs easier, and learned from visiting musicians about ways in which this practice can be embedded in hospital life; and visiting musicians have built resilience, flexibility and advanced understanding that they can apply to other areas of their work. Organisations have developed partnerships and are networking with one another in order to join up the music provision for those children who make recoveries and go on to continue their music outside of hospital. And, for those children who sadly do not come home from hospital, their final moments have been soothed:

> "The last time she had a […] session was a few days before. Although she was extremely ill and could not speak or sing, she still made decisions about songs. We gave her choices and she nodded when we got to the correct option. She still wanted to hold a shaker and be helped to take part. The team were honoured to be asked to sing at her funeral where her parents told us how grateful they were for the […] sessions and how much the project had meant to her." [1]

This report has explored some of the ways in which music can accompany and alleviate some of life's more painful and draining events for ill young people and their families. The quote above demonstrates how these interactions can continue right up until the end of a young person's life, providing comfort for their loved ones, and sometimes forming lasting impressions beyond the end of the projects funded by Youth Music.

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