

Sunshine In My Heart

The impact of OPUS live music
in children's hospitals in the UK



EVALUATION REPORT

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Summary

This report evaluates the impact of live music in hospitals in the United Kingdom, as provided by OPUS Music Community Interest Company. Surveys and semi-structured interviews showed positive responses of hospitalised children. Parents reported increased well-being for their children and also for themselves, and similar patterns were found among hospital staff. Interactions with the musicians such as the child playing the instruments were important as well as hearing the music. Positive benefits were found in this music evaluation study from the three perspectives: the children, families and staff. The results suggest that 1) music can create a space for children in hospital to interact and ease their (and their parents') anxiety and stress, and that 2) such music activities can support healthcare staff in their working environment by providing entertainment and creating more uninterrupted working time.

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1. Introduction

This report presents data from an evaluation study of OPUS Music Community Interest Company, and the perceived impact of their music activities in children's hospitals in the East Midlands area of the United Kingdom. The evaluation is based on quantitative and qualitative empirical data collected in two hospitals in Nottingham and Leicester, through surveys, interviews, photography and video recordings.

The first section (1) describes previous research into the effects of music in healthcare settings, and also introduces OPUS Music Community Interest Company. The second section (2) outlines the evaluation methods, the participants, the settings in which the data collection took place, and the empirical results. In the end of the section, the results are discussed in light of previous research and implications for future practice.

1.1 Music in hospitals

Live music in hospitals in America and Europe has increased over the last 10 years, and it is possible to distinguish different types of music making activities in health care settings. Preti (2009), uses four different definitions of music in hospitals: 1) bedside music, 2) regular concerts, 3) special music events, 4) artists-in-residence programmes. Bedside music in particular is described by Preti as a regular, long-term intervention. Musicians "make rounds" and play in schoolrooms, wards and individual cubicles. The music events can be performances, but they are also often interactive music making where children and/or carers take part in the music making session (Preti 2009). This report evaluating the work of OPUS is focusing specifically on bedside music.

What effects can bedside music have in hospital settings in general?

In general, music has been reported as beneficial in healthcare settings. Listening to music can have positive effects in particular areas of hospitals according to a report by Staricoff. Those areas were neonatal care (significant improvement in clinical and behavioural states, reducing the length of stay in hospital), cancer care (reducing anxiety and depression), cardio-vascular units (reducing anxiety and blood pressure, heart rate and demand for myocardial oxygen), surgery (reducing stress (cortisol levels) and anxiety, helping to control vital signs, reducing requirements for sedatives during the post-operative recovery period, and staying 1 day less in hospital). During medical procedures, music has been found to increase the perception of comfort, to reduce the levels of cortisol (a hormonal indicator of stress), and to significantly control blood pressure levels. Finally, music has also been associated with pain management reductions on physiological and psychological variables related to pain indicators.

This evaluation study investigates the impact of live music on children in particular. The next section looks deeper into the impact that hospitalisation can have on children, and what specific effects music has on children in hospital settings.

What effects can music have on children in hospitals?

How many children are in hospital in the UK, and what are the effects of hospitalisation in children? Can music help children in hospitals, and if so – how? In the next few paragraphs I will set out the wider context of children in hospital, before summarising some research into how music may help children in hospitals.

20% of children in the UK attend accident and emergency departments at some point in their lives. 700,000 children have at least one overnight stay, and 300,000 attend for day surgery (University of Salford 2012). There is recent evidence that the number of hospital stays for children are on the rise in the UK¹, something which may have an increasingly negative impact on children given the effects of hospitalisation in children.

It has been suggested that perhaps as many as 60% of children are negatively affected when they are in hospitals (Roberts 2010), where some of the effects seen have been separation anxiety, fear of hospitals and doctors, nightmares and aggression towards authority. While many of these effects have been noted to disappear after 2 weeks, some children have shown signs of post-traumatic stress as well as a decrease in social and intellectual functioning, and even immunological incompetence (Kain et al 1999). Children in hospital are particularly vulnerable, not only because they are ill or because they are developing human beings, but also – importantly – because of their lack of control over what is happening to them in the hospital environment (Coyne & Livesley 2010). It is the lack of control that becomes particularly significant, as we shall see soon, when we talk about the positive effects of music on children in hospitals.

With regard to music in paediatric health settings, there are positive indications here too. Music can help to enhance cognitive abilities among children, facilitate verbal and nonverbal communication, and influence physiology. The emotional qualities of music can also reduce the effects of trauma and facilitate coping strategies for difficult environments (Naylor et al 2011). Music can help children and their families to focus attention on something else external to the illness, and therefore function as a distraction and enhancement of relaxation (Preti & Welch 2004 & 2011; Preti & Schubert 2011). Music can help to verbalise experiences that help children to cope better, and in this way act as a kind of “social support”. Music can also help to turn the hospital environment into something less threatening, as it creates a psychosocial space where interaction can take place without the fear and anxiety related to diagnosis and illness (Preti & Welch 2011).

¹ BBC news 2013 <http://www.bbc.co.uk/news/health-21415142>

Furthermore, staff have been found to state that listening to live music helped them to relax, feel happier and more positive (Moss, Nolan & O'Neill 2007), and thus music in hospitals can be understood as something that fosters social interaction between hospitalised children, their caregivers and the hospital staff, and in a wider sense nurtures “a sense of individual, group and institutional well-being” (Preti & Welch 2011:7)

However, previous research also shows that performing in a hospital setting can be particularly demanding psychologically and emotionally for the musicians themselves – especially where the nature of the musicians’ role requires them to improvise in active collaboration with the patient, and also as there are constant environmental changes, such as in the medical condition of their client/patient/audience (Preti & Welch 2012).

To summarise, increasing numbers of children spend some time in hospitals. Children are often negatively affected by hospitalisation, and sometimes it can have long-term effects. Several studies and reports have shown that music in hospitals can have positive effects on both physical and psychological variables in patients in general and in children in particular. There is clear evidence that music for children in healthcare settings can be beneficial for the children, and also for parents and staff.

Still, this evaluation study sought to establish what the effects were of OPUS music in particular, in their specific setting. The aim of the study was to capture evidence of impact, for the purpose of training, reflection, demonstrations for funders and partners, and also for future projects. Before outlining the evaluation study in further detail, I briefly introduce OPUS Music and its background.

1.2 OPUS Music CIC

OPUS Music Community Interest Company is a group of professional musicians with a specialism in taking music into healthcare settings. OPUS was established in 2000 as a non profit-making organisation and has a strong history of supporting music-making with children and young people. In 2012 OPUS became a Community Interest Company, managed by its board of directors. Today, OPUS Music CIC consists of the following musicians:

Nick Cutts – Piano, Guitar, Bassoon, Voice

Richard Kensington – Percussion, Ukulele, Voice

Sarah Matthews – Violin, Viola, Percussion, Voice

Oli Matthews – Saxophones, Clarinet, Melodeon, Cajon



OPUS has been playing live music in hospitals in Derby and Sheffield since 2010, and in Nottingham, Leicester and at Kings Mill hospital in Mansfield since 2012, under charitable funding. OPUS focuses on bedside music, where they sometimes perform on their own, but often engage in interactive music making together with patients, carers and staff. They also provide training programmes for other musicians, with a view to developing a larger workforce of musicians specialised in the area of music delivery in healthcare settings. The next section presents the evaluation study, which was carried out to explore the impact of OPUS music activities in hospitals.

2. The evaluation study

An evaluation study was carried out during the first half of 2013, in order to capture and assess evidence of the impact of OPUS music activities in children's hospitals in the East Midlands. A survey was conducted, photos and video clips were also collected and the results are presented further below. Firstly, brief information and contextual information on the hospitals are presented. Secondly, the method specifics are outlined, including information on participants. Thirdly, the results of the study are presented, quantitative and qualitative data combined. Finally, the results are summarised and the impact is discussed.

2.1 The hospitals

While OPUS delivered music-making in 4 different hospitals in the East Midlands region (Nottingham, Leicester, Derby and Mansfield), two hospitals were selected as sample hospitals for evaluation purposes: Queen's Medical Centre Nottingham and Leicester Royal Infirmary. These two hospitals were selected because they were larger than the other two, which allowed for a wider selection of participants from different wards.

Queen's Medical Centre, Nottingham

Queen's Medical Centre (QMC) is one of the largest hospitals in the UK, has around 1,700 hospital beds and is the home to Nottingham Children's Hospital. OPUS works closely with the Nottingham Children's Hospital School. Nottingham City Council funds the hospital school and they provide learning centred education to all school age children and young people admitted to wards at the hospital. The main points of contact at the hospital school were the Acting Head Teacher as well as some of the teachers and support staff.

At QMC, OPUS often played in the hospital schools in classrooms, but they also regularly visited wards specialising in oncology, neurology, cystic fibrosis, gastroenterology, orthopaedics, ear nose and throat, cochlear implants, medical and surgical treatments, renal/urology, and dialysis. The teaching and support staff sometimes directed the musicians to certain patients that they felt could specifically benefit from musical interaction.

Leicester Royal Infirmary, Leicester

Leicester Royal Infirmary is based in Leicester, has approximately 890 beds, and houses a Children's Hospital. In this hospital, OPUS work closely with the Play Team. The Play Team functions as a link between families, activities for children, and medical staff. They offer normalised play for children, they distract children during treatments and are involved in environment-related aspects and ensure development while the children are in hospital. The main point of contact at this hospital was the Play Coordinator and several Play Specialists.

OPUS mainly worked in wards at the Children's Hospital, which also included the Children's Intensive Care Unit (CICU) and the High Dependency Unit.

2.2 Method

One of the key aims of this evaluation was to provide an insight into the perceived effects of music in hospitals, for children, carers and staff. It was believed that not only the children were affected by the music, but also the carers and staff, and that it was therefore important to also collect data from them. Not only from the point of them being able to verify and confirm the effects among the children, but also it was thought that if the carers and/or staff were positively affected by the music, the children may see this and be affected themselves in a circular-type movement.

Quantitative and qualitative data was collected with consent on 9 occasions in Nottingham and Leicester during 2013 (March-July). A survey, interviews and observations assessed the impact on paediatric patients, their family and the hospital staff. Photos and video clips with signed parental consent were also captured.

Survey

The survey collected qualitative and quantitative data and was deliberately designed as a one-page document, in order to make data collection easy and swift for healthcare staff and parents.

The survey was designed in three different versions: one for carers/parents, one for healthcare staff and one for older children (adolescents) (see appendix). Overall, the survey asked respondents to describe in their own words the impact of OPUS music (qualitative data), and it also asked respondents to rate to what extent they agreed that OPUS music activities improve well-being, and if there should be more of this activity available. The free text questions aimed to capture the respondents' thoughts and to collect rich exploratory data that emerged from the respondents themselves. The rating statements aimed to collect quantitative data that could be easily compared with previous studies.

The survey also collected small amounts of demographic data through forced choice questions (age, gender, age of the child (for carers/parents), job title (for healthcare staff)), and there were also opportunities to add additional comments.

Photos and videos

On occasions, photos were taken and videos were recorded on the wards. It was deemed as important to also capture the work of OPUS through visual/audio techniques, and not only in survey/interview form. This was a way to triangulate the data, and obtain as much evidence of the activities as possible.

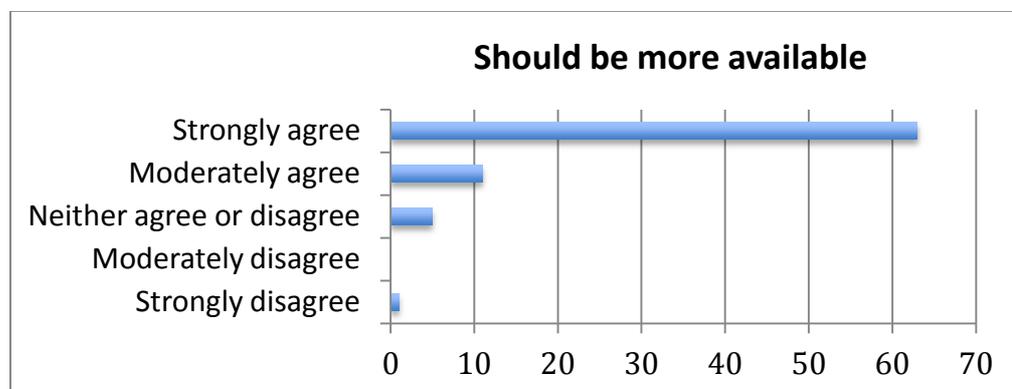
Ethical consent was always sought in written form, and only the photos and video clips for which consent was received were used. Sometimes, it was not possible to seek consent before a musical event took place, due to the spontaneous and flexible nature of the musicians' activities. In those cases, consent was always sought afterwards, and when consent was not given the records were deleted.

Participants

There were 81 survey respondents in total. Of these, there were 40 parents, 35 health care staff, and 6 patients. The reason why there were so few patients, relatively, was twofold. Firstly, it was deemed appropriate to ask adolescent and not younger children to fill in the survey, and most of the children that OPUS interacted with were younger. Secondly, sometimes it was not deemed suitable to ask the patients to fill in surveys due to their illness. Therefore, a lot of the evidence of the impact among children comes from parents'/carers' accounts, healthcare staff's stories coupled with pictures and video clips. 66 were women, 15 were men, which confirms a traditional gender distribution in terms of parenting and nursing in the UK.

2.3 Survey results

Overall, parents and staff were very positive towards having OPUS Music in hospital, and thought there should be more available:



On a scale of 1-5 (1 = strongly disagree and 5 = strongly agree), average agreement with this statement was 4.69. 78% agreed strongly that there should be more of this activity available (80% of healthcare staff, 78% of the parents), and only one person disagreed with the statement.

Both parents and health care staff agreed that the kind of music activities OPUS provide should be available on a regular, long-term basis:

*This should be in all hospitals
(parent/carer, aged 26-35, woman)*

I find these activities very calming for worried, bored and agitated children.

*It should be a more frequent activity.
(Health Care Assistant, aged 26-35, woman)*

A Senior Sister explained how she had been turned around in her opinion, going from being hesitant and sceptical to the idea, to becoming enthusiastic and supportive of the OPUS musicians after witnessing their work on her ward:

I was very unsure when I first heard about the musicians but WOW they are absolutely fantastic! The noise level on the unit during and after the musicians have been is drastically reduced and remains so for many hours. The staff, parents and patients (if they are able) all have big smiles on their faces. The musicians are very sensitive to our environment and the needs of our patients and adjust their choice of music accordingly. I may be their biggest champion and cannot rate them highly enough. I have thoroughly enjoyed their visits and have observed heart rates + blood pressures drop to within normal limits. Parents' shoulders drop as they relax for the first time in days. (Senior Sister, aged 36-45)

A Senior Play Specialist who had worked alongside OPUS regularly on several wards for the last year summarised her experiences:

Extremely positive results and feedback from parents, children and staff in Children's Intensive Care and High Dependency Unit. Personally, I have been able to observe some incredible responses to input OPUS have given individuals, and the whole environment, on Children's Intensive Care and the High Dependency Unit. During highly stressful times, the noise levels and frantic atmosphere have noticeably reduced when OPUS have played. They are extremely sensitive to the environment, and anxiety levels/current ability, emotional state, family dynamics, and mood of everyone they are involved with, and they adapt their style, volume, musical choices, interaction and physical positioning to meet these needs effectively. (Senior Play Specialist, aged 36-46, woman)

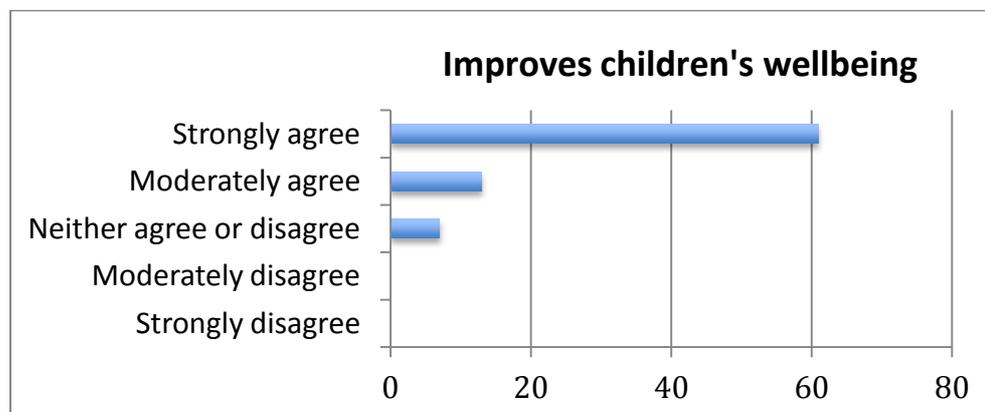
Relaxation and distraction were words that were frequently mentioned by both parents and staff (size of word increases with frequency):



Apart from the general attitude towards OPUS Music, measured in terms of whether there should be more of this activity available, the numerical data looked into three other areas, namely i) children's wellbeing, ii) parents'/carers' wellbeing, and iii) staff's wellbeing.

Children's wellbeing

In terms of children's wellbeing, the majority of parents and staff felt that children's wellbeing was improved as a result of OPUS music activities:



On a scale of 1-5 (1 = strongly disagree and 5 = strongly agree), the average was 4.68, indicating a high agreement with this statement. Looking at the result in terms of percentage, 75% agreed strongly that OPUS activities improve children's wellbeing (78% of the parents, 74% of the healthcare staff). No one disagreed with this statement.

Parents and carers testified to the immediate and visible effects that OPUS music activities had on their children. One woman commented that her "child was crying, but stopped and fell asleep to their music" (parent/carer, aged 26-35), and another woman remarked, "I wish they could have stayed longer" (parent/carer, aged 36-45).

A Supply Teacher (aged 56-65) explained how she felt that "the children always look forward to music sessions, which always results in a positive feeling". A Senior Play Specialist outlined several specific effects on the children that she had seen on the Intensive and High Dependency Unit:

Their musical input has been very positive for: 1) general entertainment and comfort, 2) distraction - from procedures/pain or discomfort, 3) increasing mobility/concentration/interaction/interest/tolerance, 4) decreasing upset/anxiety/environmental negative distractions (i.e. noise). It has been effective for patients ranging from newborn to young people, as well as adults working or visiting. (Senior Play Specialist, aged 36-46)

A parent stated that she appreciated the musicians in particular because the music they played had "nice volume" and was "not too loud". She also felt that the music could "help children's coordination with rhythm instruments too, in an enjoyable way" (parent/carer, aged 46-55).

A mother of a child with a severe hypoxic brain injury, told of the effects that she had witnessed during OPUS visits:

OPUS has been visiting for some months now, and we noticed the difference on the monitors more than anything. Following the brain injury, he doesn't tend to have any emotional output with his facial features or movements with his hands and arms due to the severity of things. So we find that he responds more in relaxing and we're seeing the drop in his heart rate. We went through a period of his heart rate being really high, around 160-170. OPUS came to see him in the Intensive Care Unit, and he just dropped into 120-130. He knows the difference between live music and recorded music on a CD, he can definitely tell. The difference is unbelievable. It really does settle him and soothe him.

The music could help children's coordination and also support children who may not be able to express themselves or take part in other, more traditional, play activities. This could be due to illness or injury, but also due to already present special needs. A mother with a child who had severe special needs, including being blind and hard of hearing, explained:

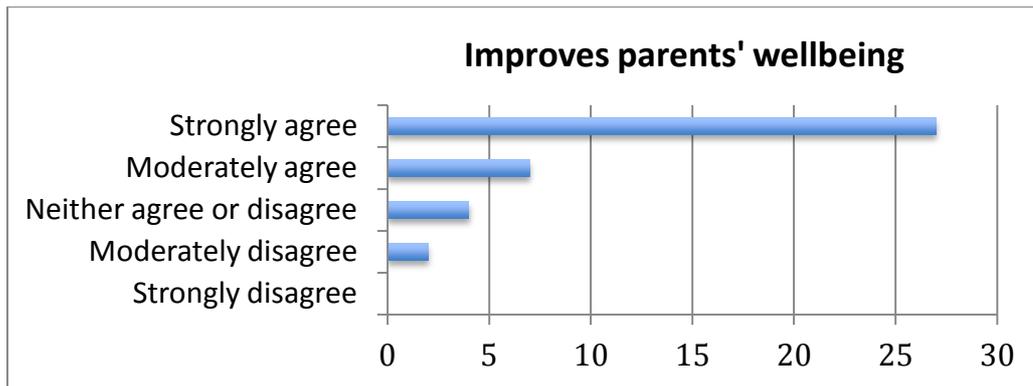
I feel we should have more music therapy especially for the children with special needs who I feel get a lot out of it. My child cannot access the playroom, although there is nothing in there he could benefit from, and he has no working tv or stereo in his cubicle. The sensory unit is no longer in use. We have been in a week and this is the first bit of therapy he has been able to enjoy, I'd like to see this kind of therapy more often. (parent/carer, aged 46-55)

Her son particularly enjoyed when OPUS played percussion instruments in his room, as he perceived the vibrations as well as the rhythmic sounds. While OPUS do not classify themselves as music therapists, many parents and staff recognised the therapeutic effects that music could have in these settings.

It was clear that both parents and staff felt that OPUS music activities helped to improve children's wellbeing when on the wards. The music relaxed the children, soothed them, helped them to think of something else beyond their illness, and helped with mobility and movement. Through doing so, the music provided an oasis, a "something other" and a level of normality in the clinical hospital environment.

Parents'/carers' wellbeing

The majority of parents felt that their own wellbeing had been improved as a result of OPUS music activities:



On a scale of 1-5 (1 = strongly disagree, 5 = strongly agree), parents agreed on average 4.48 with this statement. Put in a different way, 68% of the parents agreed strongly that OPUS activities improve parents' wellbeing. This suggests that also the majority of parents and carers felt that OPUS music activities had a positive effect on them, and not only on their child. Only 2 parents (out of 40) disagreed with this statement.

It was evident also from the survey comments that OPUS music activities had a positive effect on parents and carers. The way this seemed to work was that through seeing their children enjoy themselves, the parents also became more relaxed and uplifted.

*It's nice to see all the kids enjoy their music, they calm the whole ward down.
(parent/carers, aged 26-35, woman)*

The presence of OPUS also brought a sense of normality onto the ward, a break from the clinical setting in which they were in, and this was appreciated by the parents and carers.

Chilled me out (didn't think I was in hospital), reminds of "normal life". (parent/carers, aged 46-55, woman)

A man was half-sleeping on a chair next to his daughter's bed when OPUS came in to their bay, and he looked both exhausted and worried. He smiled widely during the music activity and later wrote in his survey:

This is a fantastic activity, got my child involved and excited. She sang along and enjoyed it all the time. It was a great feeling to see my child come out of pain and stayed happy during the activity. I hope this will have a positive impact on her mood throughout the day. (parent/carers, aged 26-35)

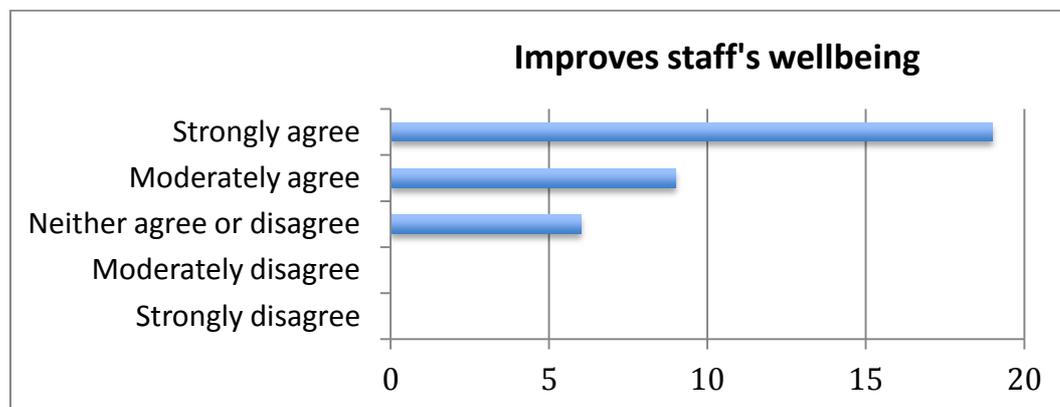
His comments highlight the supportive effects that OPUS can have for parents as well as for children. He felt uplifted and relieved by the fact that his daughter enjoyed herself, which had a clear relaxation effect on him too – and not only in that very moment but potentially for a period after as well.

The supportive role of OPUS was also echoed by a woman who explained how she enjoyed seeing “people coming onto ward for children, (it) makes you think people care (parent/carer, aged 36-45).

Parents/carers enjoyed OPUS music for their own sake, but even more common were reports of “music enjoyment by proxy”. The parents thoroughly enjoyed seeing their children enjoying the music, smiling, getting involved with the music activities, interacting with the musicians and sometimes other children or staff. The enjoyment by proxy brought a sense of relief to the carers, they felt as if the musicians really cared about their children, and they could take a step back and relax.

Staff's wellbeing

Healthcare staff also indicated that they enjoyed the music and that their wellbeing had been increased as a result of the music event:



On a scale of 1-5 (1 = strongly disagree, 5 = strongly agree), healthcare staff agreed on average 4.36 with this statement. Just over half (51%) of the healthcare staff agreed strongly that OPUS activities improve staff’s wellbeing. No one disagreed with this statement.

Most staff appreciated having the musicians on the ward. They also reported “music enjoyment by proxy” when seeing the children engaging with the music. Many staff felt emotionally moved by the effects that OPUS music activities had on children. “Staff have come out bawling”, said a Play Specialist, “they have brought a special kind of magic”.

But the music events could also impact positively on their own working environment. A Senior Sister (aged 36-45) described the music activities as “a calming refreshing break from busy day to day working”. She further described how the music “calms, reduces noise level, relaxes staff”, and that “having more settled patients and parents eases workload”.

While the musicians were at work, staff could sometimes “get some administrative tasks done (Hospital School Teacher, aged 56-65, man), and staff also described how

they appreciated the musicians as a group who brought skills into the environment that they themselves did not necessarily have.

Supporting the service we provide, Boosts team morale, Helps provide variety of enjoyment (Play Specialist, aged 26-35, woman)

The musicians sometimes worked alongside medical staff during certain procedures, and provided distraction and entertainment during treatment. The children, especially young children, lowered their breathing rate and stopped crying, which helped nurses and doctors to listen to their breathing or heartbeat. One junior doctor described how he was carrying out a medical examination on a child, which was helped by the assistance of OPUS:

We had a child in a side cubicle. She must have been 2-3 years old. She was just bawling her eyes out, crying constantly, you could hear her outside in the corridor and she sounded really distressed. We were trying to work out if she was having a tummy pain and listen to her heart, as you do with every child when you do a full examination. But it's impossible when you cry, you tense your muscles in your stomach, and you can't listen to the chest because it is really loud. Luckily it was a Tuesday morning and then you hear this... in the background... the music starts off. So I got the play therapist to go and grab the musicians and bring them in the room. The child looked at that and got completely transfixed and we could just slightly examine her while she barely knew that we were doing it. (...) For us, that really helped.

In a sense, the musicians sometimes took the pressure off staff – both medical and teaching staff. Not in the sense that they replaced them, but in a supporting sense and by providing comfort, entertainment and support, they were able to free up time for staff to carry out their procedures, or other non-patient-related tasks.

But the staff also enjoyed the music individually, and some would often clap their hands, stomp their feet, tap their fingers on desks, and generally engage with the children and the musicians. This was enjoyable for staff on an individual level, and on a group level too.

Gives staff opportunity to join in with the pupils. Singing - clapping - maybe even dancing! (Teacher, aged 56-65, woman)

There were reports of staff first being suspicious when the musicians started coming to the hospitals. In the one hospital, staff explained that they initially felt wary of letting the musicians get in close contact with very vulnerable children – for example in palliative care. The staff had previously experienced volunteers who they felt had not truly been there for the children, but because they themselves had some hole in their lives which they wanted to fill. However, they felt that OPUS displayed a significant level of sensitivity. The musicians were described to immediately “zoom in on the needs of the children” and not focusing on the medical condition. “They never ask questions, and instead take the children for what they are”, told a Play

Specialist. In this sense, it seems that a core element of OPUS' work is not to focus on the medical aspects of the children, but instead on the quality of interaction with them. This approach is likely to help in providing distraction and relief for the children while in a stressful, clinical setting.

In many of the comments (both in the survey, during interviews, and via informal comments made during observing on the wards), the word *sensitivity* was often mentioned as an important factor for the relationship between OPUS, patients and staff. Sensitivity was defined as the way in which OPUS respected the hospital environment - as a space occupied by many vulnerable individuals, but also as a working environment. The sensitivity seemed to be imperative in order to build trust between the involved parties, which enabled further collaboration "in situ". Another enabling activity was training sessions for hospital staff, led by OPUS. The training sessions aimed to increase collaboration and understanding, and were reported to have immediate positive outcomes, which led to further links being formed between the musicians and staff and ultimately the musicians being allowed in more wards.

2.4 Conclusions

OPUS music activities had a number of beneficial effects on children, parents and staff in hospitals. The quantitative data from the survey show that the majority of parents and staff displayed positive attitudes towards OPUS and the effects they were perceived to have. The qualitative data complements these positive attitudes and illustrate how parents and staff had been affected by the music activities.

The results suggest that music helped to distract children from illness, enhanced their relaxation, provided stimulation, learning opportunities and gave them an opportunity to momentarily be in control of their environment. Given that a lack of control has been linked to negative effects of hospitalisation in children (Coyne & Livesley 2010), it is possible that this is one way in which music functions and can have positive effects on children's wellbeing. Parents, carers and hospital staff also enjoyed the music activities. The most commonly described positive effects were "enjoyment by proxy", where parents and staff enjoyed watching the children enjoying the music activity and subsequently experiencing positive feelings as a result. Parents described enjoying the music directly too, so to speak. The music could provide a welcome distraction and remind the parents of normal life outside of the hospital. Some parents also felt that the musicians comforted the children, which helped them to relax. Hospital staff described how they felt that the musicians supported their work in several ways. They added skills and expertise that the staff did not necessarily have, but they were also able to create extra time for the staff. By entertaining the children and parents, staff felt that they could focus on administrative tasks.

As with all research projects, this evaluation has some research deficits. Firstly, there are no direct survey data from the children. All the reports on children's wellbeing emanate from parents, carers and staff, but not from the children themselves. This is

unfortunate, but the children were often either too young or too ill to ask. To make up for this shortfall in data, the video film became more important throughout the project. In the video clips, children's interactions, emotions, body language and facial movements can be identified, and can somewhat support the data from the parents and staff. Secondly, this evaluation was initiated by OPUS themselves, which creates a possible bias in the evaluation process. However, this was continuously reflected on throughout the evaluation period, and care was taken to not only discuss the positives of music in hospitals, but also ask when music may not be suitable. No pattern emerged, and the conversations often included discussing the idea of sensitivity. As mentioned earlier, OPUS were perceived as displaying high levels of sensitivity and was therefore never seen as inappropriate or disturbing.

While it is difficult to put a price tag on arts and wellbeing, it can still be concluded that music in hospitals is a relatively cheap intervention in clinical settings. The cost of hospital beds in a non-specialist ward is estimated between £225-400 per day per bed according to figures from NHS, whereas costs of specialist (for example intensive care) beds can be as high as £2,000 or more per day per bed². In comparison, OPUS music activities cost around £400-450 per day, and they see and interact with many different children during the day. The cost per family has been estimated by OPUS to be around £10 per family.

It is important to point out that while music in hospitals cannot replace any of the medical care provided in hospitals, it is a relatively cost-effective activity that can give a sense of wellbeing for everyone on the wards, as confirmed by this evaluation and research elsewhere (see Introduction). Future evaluations or research projects may wish to focus on understanding the deeper financial implications in clinical settings, such as whether long-term music interventions help shortening overall hospital stay, whether the wellbeing effects on staff influence stress levels, sick days off, or administrative productivity.

² <http://www.bbc.co.uk/news/health-20755256>

3. Acknowledgments

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5. Appendix

Nick Cutts is a professional bassoonist, pianist and guitarist. Having worked for many orchestras and ensembles across the Midlands and beyond, Nick has vast experience of performance across a wide variety of styles. Nick left an orchestral management role in 2000 to establish OPUS Music CIC, following a passion for community music-making. His role within OPUS has seen him working in schools and healthcare settings as well as professional producing theatre venues, working as a flexible, improvisatory musician with the ability to react and adapt to a wide variety of circumstances. Nick undertook specific European Music in Healthcare Settings training with Musique & Santé (Paris) and Royal Northern College of Music (Manchester) both as a musician and as a trainer of musicians and healthcare professionals. This development encompassed practice and training sessions in Paris, Dublin, Krakow, Manchester and Derby. This unique experience and expertise has been disseminated amongst OPUS colleagues.

Richard Kensington is a professional percussionist specialising in Cuban Percussion. He plays with the Latin Trio Mas Y Mas. Richard has spent time studying percussion in Cuba and has performed all over the world with Mas Y Mas. Richard's love of percussion instruments from folk traditions led him to the bodhran: the Irish drum through which he discovered the folk music of the UK and Ireland. His background in church music gave him confidence with his voice from an early age. Richard has taught music and facilitated groups in a variety of educational settings since 1999 and has worked as a musician with OPUS since 2004. His eclectic set of influences and experiences has equipped him with the ability to learn by ear, to improvise, to react and adapt musically to a situation as it evolves. Richard's passion for music and its power to communicate and connect with people is at the heart of his involvement in music in hospitals.

Sarah Matthews is a professional folk musician and singer, playing the fiddle, viola, light percussion and tenor guitar. A composer, improviser, song-writer, teacher, and dancer; she is passionate and enthusiastic, and enjoys sharing her music and singing with others in a wide variety of settings. She has been working with OPUS for about ten years in a variety of capacities including workshop-leader and now Hospital Musician. Her knowledge and experience of traditional material, and the ability to play pieces by ear, and embellish melodies have been invaluable when playing music in healthcare settings, and she brings a subtle and responsive mode of playing that is ideal for this kind of work.

Oli Matthews is a freelance Musician and Composer based in the East Midlands. He trained in Classical, Jazz and Folk music and so he works in many different styles, which are reflected in the compositions he writes. Today Oli performs mainly on the Folk and Jazz scene, playing at many festivals in the U.K. and across the world.



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