Waterford Healing Arts Trust

Artist in Residence Programme 2019

Neonatal Wards, University Hospital Waterford

Report by Catherine Sweeney-Brown

From April to October 2019, Catherine Sweeney-Brown was Waterford Healing Arts Trust (WHAT) Artist in Residence on the Neonatal Ward of University Hospital Waterford.

WHAT was established in 1993 and works with professional artists to bring arts experiences to the bedsides of patients at University Hospital Waterford and other healthcare settings to soften the clinical environment and to reduce anxiety and stress for patients, visitors and staff. Based at University Hospital Waterford, they lead the development of arts and health practice in Ireland and manage the national website www.artsandhealth.ie. The organisation operates out of the WHAT Centre for Arts & Health, the first such dedicated physical centre in the country.

The focus of the WHAT Artist in Residence programme is the artist's engagement with patients at UHW in participatory and/or collaborative arts experiences. **For this residency, I focused on developing a positive soundscape for the very young patients in the Neonatal and Special Care Baby Unit by modifying the acoustic environment and by introducing babies and their families to live music.**

I am a qualified music therapist with over 20 years' experience of working with clients of all ages, including young babies with acute medical needs. I was interested in improving the soundscape of neonatal wards, where babies are deprived of the natural sounds of their mother's womb that promote positive development and are often exposed to levels and types of sound which their immature organisms cannot process, potentially leading to physical, cognitive and emotional damage.

This project was a new venture for me as, for the first time, I was employed as an artist rather than a therapist. I have always felt comfortable about working in the overlap between the worlds of Arts Therapies and Arts and Health. I believe that both roles have distinct aims and benefits but they are not mutually exclusive and can complement each other. Having worked for many years within children's hospices in the UK, I had experience of fitting in with clinical teams and having to adapt my therapy input to suit the needs of specific environments. I felt that the residency could provide a wonderful opportunity to introduce music to a new client group in an acute clinical setting that had not experienced it before.

It is widely recognised that music has the power to affect us, often unconsciously, and our physical, cognitive and emotional states are altered by the sounds that we hear around us: music can change our mood; we regulate our bodies to move to the rhythms we hear; our heart rate alters according to the speed and pitch of sounds; and we use music to connect with others and to express our feelings.

A music therapist trains on an accredited course to Masters Level to learn how to use the intrinsic power of music to work in a primarily non-verbal way in order to help clients in a wide variety of situations, from pre-birth to end of life, in the fields of mental health, intellectual disability, autism, brain injury, trauma, palliative care, forensics and many more.

Modifying the Acoustic Environment

During the residency I sought to improve the experience of the babies in the Special Care and Neonatal Intensive Care Units (SCBU and NICU) by modifying their sound-world to create a more peaceful atmosphere that would assist their development. Along with touch, sound is the first stimulus that we respond to in utero. Babies undergo their pre-natal development to a symphony of music: the steady rhythm of their mother's heartbeat and pulse, the ever-present sounds of her digestive system, the melody of her voice and the muffled sounds of voices and noises from outside the womb. The vast majority of these sounds are regular and predictable and act as a soothing auditory background with which the babies can entrain physiologically, allowing for a relaxed state within which they can develop physically, cognitively and emotionally.

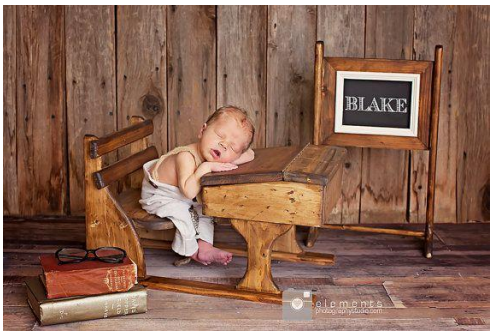
From around 25 weeks gestation, a foetus will startle to noise, showing a clear dislike for loud or sudden sounds. Infants born pre-term often arrive in a dramatic manner, through emergency interventions that involve a lot of visual, tactile and auditory stimuli. They are then cared for in noisy incubators, often on busy wards full of unpredictable sounds: banging doors, squeaking bins, raised voices, telephones, beeping machinery, rattling trolleys, clunking dispensers etc.

The babies expend a lot of valuable energy trying to process these sounds: their bodies regularly enter startle responses which increase their heart rate, destabilise their respiratory pattern and trigger involuntary movements. Their brains move from a relaxed state of entrainment with a regular heart rate into a state of hyper-arousal and their previous in-utero development can be interrupted.

I began by putting measures in place to try to reduce the impact of environmental sound. I took decibel readings on the wards and observed the babies' responses to a range of sounds. Whilst the majority of the sounds on the wards were within recommended guidelines, the babies reacted adversely to some everyday noises. In particular they startled to high pitched and unexpected noises such as chairs scraping on the floor, alarms and pagers beeping, Sellotape and paper towel dispensers and sudden loud voices. To mitigate against this, I put felt discs on the bases of the chair legs and on the doors of banging cupboards, whilst the cleaning staff reduced the amount of paper towels in the dispensers. I also put up posters to encourage both staff and visitors to be aware of the level of their voices.

Quiet Please!

We're working hard at growing.



I also consulted Juergen Bauer, an acoustic architect, about ways to lower noise on the wards. Unfortunately many of the methods of reducing sound pollution in buildings could not be implemented within an acute clinical setting due to infection control protocols. However, his input was really valuable in terms of thinking how sound moves throughout a building.

Throughout the residency, there was a gradual increase in awareness amongst staff and visitors about the effects of environmental noise on the babies, and an overall reduction of sound on the unit, with many staff and families commenting on how this improved the atmosphere on the ward.

Generally, the mornings tended to be the noisiest time, with a marked increase in volume during ward rounds, especially if medical students were present and being taught by the consultants. However the afternoons were usually calmer and the babies could rest more deeply.

During the initial weeks of the residency, several staff mentioned how they found themselves suddenly lowering their voices when they saw me arriving as they remembered to keep the noise down, but after a while the quieter atmosphere became the norm and the benefits were obvious.

"Catherine had a very calming influence in the neonatal department which benefitted staff, parents and patients alike. We all became more aware of the importance of different types of noise and the effect they have on the babies." (Consultant Paediatrician)

"Catherine... made us aware of the noise levels in the unit and created a relaxing environment for parents and their babies." (Staff Nurse)

"From a nursing point of view, the exposure of babies to music, and their reaction, makes us more aware of the environment that we provide, and the need to reduce stimuli that are damaging." (Staff Nurse)

"The music helped to calm the atmosphere and silence other daily noises to which we all become somewhat immune." (Director of Midwifery)

"Infants responded to this therapy and it was lovely to see an evidence-based practice in use in the unit. Parents were happy to incorporate it into their infant's care. It encouraged 'quiet periods' in the unit when the music was being played, and reminded us as staff of how noisy we can be without realising it." (Staff Nurse)

The calmer atmosphere allowed the babies to sleep more deeply between feeds without disturbance, promoting their growth and development. It also led to a less stressful working environment for the staff.

Music for Babies

The other aim of the residency was to introduce babies and their families to music in the Neonatal and Special Care Baby Unit. Whilst music in neonatal care is a new concept in this country, there have been several large-scale research studies around the world proving that music intervention in NICU's leads to improved physical and cognitive outcomes for babies, and can reduce hospital stays by up to two weeks.

In May, I attended a study day on Music Therapy and Pain at the University of Limerick (UL), led by Professor Joanne Loewy, a New York music therapist who specialises in NICU music therapy. At this event I met several other Irish music therapists who are beginning to work in this area, and out of this meeting a special interest group was formed with a view to promoting music therapy in this setting and sharing best practice. In September one of this group, a music therapist currently undertaking a PhD at UL, came to observe my work on the ward.

I also consulted Chrys Blanchard, a Sound Healer who works in Neonatal settings in Wales, and on her advice invested in some specialist instruments such as a Sansula (a tuned thumb piano which is mounted on a tambour for added resonance), a Bola (a Mexican silver rattle with a soft tinkling sound) and a set of small singing bowls. I researched optimal sounds for this client group and found that studies showed that the Punji, an Indian flute used in snake charming, was the most effective as this seemed to be the instrument that very premature babies (born at less than 33 weeks gestation) could respond to without becoming over-stimulated. I am a classical flautist, so I added a low pitched tin whistle that sounded similar to a Punji to my instrument kit.




I wrote information leaflets to be given to the families and produced consent forms for parents to sign before I began working with their baby. These forms were kept in the baby's clinical notes, so that there was a visible record of consent. As parents were often not present on the ward when it was a 'music day', if consent hadn't been secured in advance, this did mean that there were times when a baby's access to music was delayed. During the six months of the residency, only two parents made the decision not to allow their baby to access music. I also put up a poster at the entrance to the unit that informed parents of which days I was going to be on the ward each week.

Some parents really wanted to be present when their babies were receiving music, so I planned my input around their visiting times. Others sometimes requested that I work with their baby when it was time for them to leave, as they felt that it would be a comfort to both them and their baby to have music at this time. Some families lived long distances from the hospital and, particularly when they had other children at home, parents could not spend as much time on the ward as they would want to and the separation from their babies could be a source of distress. I did some work directly with parents in this situation, facilitating the recording of them singing nursery rhymes and lullabies that could be played to their baby when they weren't able to be with them.

Wherever possible, music sessions were timed and focussed according to clinical need, in consultation with the nurses and doctors on the ward. For the most part, the very premature babies in NICU needed to be kept in a state of rest as much as possible, so the music intervention for this age group aimed to calm and relax rather than stimulate. For these babies, often the aim was to help them to sleep deeply after a tube feed in order to help them to digest their feed without vomiting, or to distract or resettle them if they woke too early for a feed. For the older babies the aim might be to wake them up sufficiently for them to be able to bottle or breast-feed, or to facilitate and encourage interaction with family members.

> *"Very positive experience for babies and staff and parents. The babies were very settled and their heart rate stabilized during sessions, especially unsettled babies. Parents generally found that music therapy gave a relaxing atmosphere in a busy unit." (Staff Nurse)*

Supporting Feeding

The ability to take in sufficient calories through breast or bottle feeding is vital in order for babies to be discharged from hospital. Many babies on the neonatal ward lack the physical energy to do this successfully, either due to their size or prematurity, shock from a traumatic birth or tiredness due to jaundice etc., whilst many also struggle with reflux and other issues linked to premature digestive systems.

Over the course of the residency, I developed a specific musical input to support feeding: when a baby is struggling to feed by breast or bottle, providing rhythmic music that initially stimulates their attention, and then follows the pattern of their sucking reflex, can help to establish and sustain their ability to feed for longer. For this I used a

Kalimba or a Stirring Drum. After they finished feeding, the challenge was to keep the baby calm, facilitate winding, and reduce the incidence of vomiting through the use of very gentle resonant melodic music. The flute or Sansula proved effective in this regard. The relief of parents when their babies successfully managed to feed was enormous, and this input potentially saves the HSE a considerable amount of money by reducing the length of hospital stays as has been shown in research by the National Institute for Infant and Child Medical Music Therapy in Florida. https://wusfnews.wusf.usf.edu/post/music-therapy-nicus-can-help-babies-get-home-sooner.

Individual Music Sessions

When a music therapist works with a neonatal baby, they improvise music that is clinically appropriate, matching it to the baby's heart beat and the rhythm of their breath, and they alter their music in real time according to the baby's responses. Generally, the music offered is low in pitch with a regular, predictable rhythm, which helps to reduce the baby's heart rate and lead to a slower and deeper respiratory pattern.

I was aware that even the gentlest of input could potentially be tiring for the babies and kept a close watch on their monitors for signs that they were becoming overloaded, so the length of sessions was always dictated by the responses of the baby. As I tended to spend most of the day on the ward, there was the option to offer several short sessions to babies throughout the day.

However, it was much more common for the babies, even those born extremely prematurely, to show signs of distress when the music finished. On some days, there were several babies on the ward demanding constant and exclusive musical input, and at times I used a Bluetooth speaker (waterproof and dustproof to meet infection control protocols) to play pre-recorded music in individual cots or incubators in order to try to keep these babies settled. This did not always work however, as some babies objected to being fobbed off with piped music when they could hear me working elsewhere on the ward.

For parents, music can provide a gentle space in an otherwise clinical environment where they can interact with their baby in a nurturing way. By its nature, neonatal care interrupts the normal process of forming attachment: both parents and babies can be traumatised by the birth experience, parents may be experiencing high levels of anxiety and possibly depression, opportunities for bonding are more limited due to babies being ventilated or in incubators, and premature babies are simply unable to respond to their parents in the same way as those born full-term. Music can help to relax the parents and facilitate the formation of their positive attachments to their babies through singing to them, or just experiencing live music with them whilst tuning in to their responses.

"Both baby and I found the music very relaxing. Baby settled really well during and after listening. In the Neonatal ward it really helped to take my mind off the worries about my baby's health." (Mother)

"I think it's wonderful – it calms the baby and it calms the mother. I don't think it should be optional, I think it should be compulsory." (Mother)

The experience of having a nurturing non-clinical intervention available to families brought some normality to parents' time on the ward and allowed them to share precious moments with their babies. Many spoke about how traumatising they found the whole experience of having a baby in special care, especially after a difficult birth, and how music helped to alleviate some of their distress. For staff working on the ward, the incubators, ventilators and the multiple tubes and lines that are needed to sustain and progress the life of a neonate are part of routine care, but for parents the experience of seeing their babies with that level of medical input can be shocking and upsetting.

"Amazing service which really helped to ease both my and my partner's anxiety and stress levels upon seeing our daughter, who had a traumatic birth which in turn affected her demeanour. She was relaxed and attentive during the sessions and this really gave us an opportunity to create a special memory from our time in the early and stressful days of being in the neonatal unit." (Mother)

"It's so distressing coming on here, and hearing the music when we arrived just calmed us all down and made everything ok," (Mother)

For some parents, their baby's music session was the first opportunity they had to witness them responding positively to any stimulus, and this experience had a vital impact on parental wellbeing and mental health, as well as being an important factor in facilitating positive attachment.

"My son was in the unit for nearly five weeks. Every time he experienced the beautiful music he responded extremely well, even on occasion crying when the music stopped. As a parent watching your child (who is unwell) having such a positive experience is really important at this extremely stressful time." (Mother)

"I was lucky enough to be there on 2 days when Catherine played to my baby. I was amazed by her response. Her eyes were wide open listening as soon as she started to play. H. even tried to sing along!!" (Mother)

"We are very thankful for that support. We had a good time and lovely memory." (Father)

"Most of all, for me personally I loved the joy it brought to patients, who are frequently stressed and in some cases traumatised. This shared music was often the first gentle, happy and bonding moment for them." (Staff Nurse)

Support During Medical Procedures

All babies in special care have to undergo vital medical procedures such as having bloods taken, IV lines inserted etc. These experiences can be frightening and painful, especially when they are repeated frequently, and this can impact on the babies' emotional and cognitive development.

In these situations, I accompanied the procedures by improvising music that connected with the baby, sometimes matching their crying: distracting and soothing them and allowing them to integrate their pain experience in a less traumatic way. Having live music playing during procedures had the added advantage of relaxing the medical staff, which in turn also had a positive impact on the baby.

The calming music during procedures certainly helped many of the babies. The whole experience has benefitted the unit greatly. Thank you!"
(Consultant Paediatrician)

"That was really lovely, so calm. It made my job much easier." (SHO)

"The music therapy has been a lovely addition to a service we already strive to improve on a daily basis. We have learned so much as staff, and watched in amazement the mollification of infants undergoing procedures here." (Staff Nurse)

"I found the live music to be a great comfort to baby H. When she was upset it really seemed to settle her. She really loved the windchimes. After her vaccines the flute really helped her to relax and go to sleep. I would recommend it for any baby." (Mother)

One of the advantages of having music on the ward, even when it was in the background, was that it could work on a subconscious or even unconscious level to positively affect the babies, families and staff. Whilst I worked with individual babies and their families, the music could usually be heard across the whole ward. Many staff commented on how much less stressed they felt on the days when I was working on the unit, and visitors to the ward could sense a change in the atmosphere:

"From my perspective as a Director of Midwifery I was visiting the Special Care Baby Unit (SCBU) on a particular day to seek an answer to a query. Not having music on my mind I was stopped in my tracks at the door of SCBU with the sound of a most wonderful flute. A baby and Dad were enjoying the interaction and I watched while the nursing staff went very quietly about their work almost swaying in time to this melody along with other families present that day. It was such a lovely short break in my day."

"When there's music on the ward the staff are more relaxed, it's like everyone can breathe." (Mother)

Publicity

During my time at the hospital I was asked by Paula Curtin, the Director of Midwifery at UHW, to write an article for *Ultra News*, the Newsletter of the Maternity Directorate of the South / South West Hospital Group, and this was published in the autumn edition. This was a wonderful opportunity to educate people working in the sector about the potential benefits of music in neonatal care and it was well received.

Music therapy in neonatal care

by Catherine Sweeney-Brown, Music Therapist and 2019 Artist In Residence with the Waterford Healing Arts Trust (WHAT) at UHW

Music therapy is a very new addition to neonatal care in Ireland and involves the clinical application of the elements of music to effect change. There have been several large-scale research studies around the world proving that music therapy intervention in Neonatal Intensive Care Units (NICUs) and Special Care Baby Units (SCBUs) leads to improved physical and cognitive outcomes for babies, and can reduce hospital stays by up to two weeks.

Babies' experiences of sound

Along with touch, sound is the first stimulus that we respond to in-utero. Babies undergo their pre-natal development to a symphony of music: the steady rhythm of their mother's heartbeat and pulse, the ever-present sounds of her digestive system, the sound of her voice and the muffled sounds of voices and noises from outside the womb. The vast majority of these sounds are regular and predictable, and act as a soothing auditory background for the baby as it grows and develops.

From around 25 weeks gestation, a fetus will startle to noise, showing a clear dislike for loud or sudden sounds. Infants born pre-term often arrive in a dramatic manner, through emergency interventions that involve a lot of visual, tactile and auditory stimulus. They are then cared for in noisy incubators, often on busy wards full of unpredictable sounds and these babies expend a lot of valuable energy trying to process these various sounds. Their whole bodies regularly enter startle responses which increase their heart-rate, destabilise their respiratory pattern and trigger involuntary movements.

The music therapist

When a music therapist works with a baby in the neonatal setting they choose appropriate music - matching the baby's heartbeat and breath - and they alter their intervention in real time according to the baby's response. Generally the music offered is low in pitch with a regular, predictable rhythm, which helps to reduce the baby's heart-rate and lead to a slower and deeper respiratory pattern. If a baby is struggling to feed by breast or bottle, providing gentle rhythmic music that follows the pattern of their sucking reflex can help to establish and sustain their ability to feed for longer.

Music therapy and parents of pre-term babies

For parents, music therapy can provide a gentle space in an otherwise clinical environment where they can interact with their baby in a nurturing way. Opportunities for bonding are more limited due to babies being ventilated or in incubators, and pre-term babies are unable to respond to their parents in the same way as those born full-term. Music therapy can facilitate parent's formation of positive attachments to their babies through singing to them, or just experiencing live music with them and tuning into their responses.

Music therapy and preterm babies

All babies in neonatal/special care have to undergo medical procedures such as having bloods taken, IV lines inserted etc. These experiences can be frightening and painful, especially when they are repeated frequently. They can have an impact on the babies' emotional and cognitive development, reducing their resilience and affecting their ability to form positive attachments. In these situations the music therapist can play live music that connects with the baby's crying, distracting and soothing them, and allowing them to integrate their pain experience in a less traumatic way. Having live music playing during procedures has the added advantage of relaxing the medical staff, which also has a positive impact on the baby.

Music therapy can have a profound effect on the physical, cognitive and emotional wellbeing of babies in neonatal care. As more therapists begin to work in this field, the potential benefits are being seen by staff and parents alike. As one mother, whose baby received several music therapy sessions during his two week stay in hospital put it: "*It's wonderful – it calms the baby and it calms the mother. I don't think music therapy should be optional, it should be compulsory! When there's music on the ward the staff are more relaxed, it's like everyone can breathe.*"

For more information, contact Waterford Healing Arts on *what@hse.ie* or 051 842664.

Legacy

Throughout this residency I reflected on how I could leave some form of legacy on the wards when I finished. I hoped that the improvements in sound levels on the wards would continue after the residency, due to the increased awareness of staff of the importance of maintaining an optimum auditory environment for the babies. However, unlike a visual artist, my work does not result in the creation of a piece of art, and I wanted to be able to leave something concrete behind.

During my time on the wards, several of the families jokingly expressed a wish to take me home with them due to their babies' positive responses to my input, and so towards the end of the residency I decided to record some tracks which could be accessed by families and staff.

I liaised with members of the WHAT staff as to the best way to go about this and recorded seven tracks which were then edited on Audacity with the help of the Music Co-ordinator at WHAT. These were then uploaded to Soundcloud where they could be downloaded directly by families:

https://soundcloud.com/user-291966488/sets/music-for-babies-by-catherine-sweeney-brown

Some of the families whose babies were on the ward accessed the tracks immediately and reported that they found them useful, and since the end of the residency I know of other families who have contacted WHAT to say that they have downloaded them to use with their babies.

One of my recommendations following the residency was for the ward to invest in a sound system, in certain areas, so that piped music could be played for the babies at a specific time each day. Waterford Healing Arts Trust and the neonatal ward manager are looking into the feasibility of this.

Challenges

The Neonatal Unit at UHW was a new area of engagement for Waterford Healing Arts Trust and so I needed to forge new relationships with staff. I did this by spending time chatting with all of the staff on the unit about the project, from consultants to cleaning staff, and seeking their input. I also gave a presentation to their journal club about the role of music therapy in neonatal care, which explained more about the research underpinning the work.

When starting in any new workplace, I find it best to fit in with existing routines as best I can until the staff have a chance to witness the effects of my work and choose to 'make room' for me. I was aware of the importance of not getting in the way of daily routines, in particular ward rounds. To avoid this I tended to start my days doing paperwork at my base in the WHAT Centre for Arts & Health, so that the consultants were finished their ward rounds before I began working on the unit. This meant that the sound of my music did not disturb their ward round and the sound of their discussions did not disturb my music! As the times of ward rounds varied from day to day, there were some occasions when I was working on the unit at the same time and this was not always ideal. This was particularly true if a baby had just settled during a session and was then woken for an examination, or if there were a lot of students present, as noise levels were elevated during these times.

One disadvantage of avoiding ward rounds was that I sometimes found it hard to get the necessary information on the babies to allow me to work with them at an optimal time. If the staff member who was allocated to a particular baby was on a break, or busy elsewhere, I was sometimes unable to find out about the baby's feeding and sleeping routine, if they were due to have any medical procedures, or if their parents were due to visit.

As mentioned before, the consent forms that I left on the unit were usually, but not always filled in, especially if there had been a large turnover of babies since my last visit, leading to delays in delivering music, as stated previously.

Of all the client groups that I have worked with over the past couple of decades, the babies on the neonatal wards were amongst those most vulnerable to infection. I had to work to a strict infection control protocol (ICP), wearing a gown on the wards, carefully cleaning instruments between individual sessions and making sure that, when I worked with babies who had infections, I did so at the end of the working day and then subjected my instruments to deep chemical disinfection.

In general, I found the unit a lovely environment to work in and felt supported by the managers, doctors and nurses alike. Staff seemed genuinely interested in the potential of this work and were eager to learn about my approach. I in turn was keen to benefit from their experience and expertise, and learned a lot during my time on the wards.

I had hoped to run some antenatal music groups for mothers who had been identified as needing additional support, but despite meeting several times with the perinatal mental health nurse and producing information leaflets, this never became established during the residency, which was disappointing. The challenges were around getting the expectant mothers to commit to attending and staff shortages that were temporarily affecting the midwifery department.

Timeline

1st April: I attended the maternity multidisciplinary team (MDT) meeting, comprised of consultants and managers, to inform them about aims of the project and to gain their permission to proceed.

Later that morning I met with the acting ward manager who introduced me to the neonatal wards.

5th April: I produced information leaflets, session record sheets and consent forms and began working on the wards with a very limited range of instruments.

9th April: I met with staff from the infection control department to discuss which instruments would be safest to use and how to disinfect them.

11th April: I attended 'Arts and Health Check Up Check In' at Garter Lane Arts Centre – the Arts and Health symposium organised by WHAT.

30th April: I met with Juergen Bauer, acoustic architect, to discuss ways of reducing environmental noise on the wards.

15th May: I attended a conference at University of Limerick on 'Music Therapy and Pain Management' led by Professor Joanne Loewy, a specialist in NICU music therapy.

5th June: I attended another MDT meeting to discuss how the residency was going and gain feedback.

18th June: I gave a presentation to the maternity unit journal club on music therapy in neonatal care.

9th July: I met with a sound healer who works in NICU, and got advice on other instruments to include.

September: Publication of my article about the residency in *Ultra News*: Newsletter of the Maternity Directorate of the South / South West Hospital Group.

3rd September: Observational visit from PhD student at University of Limerick.

19th September: Uploaded recordings of music to Soundcloud that can be accessed directly by staff and families.

2nd October: I attended a final MDT meeting to feed back on how the residency had gone.

11th October: Final day working on the wards.

16th October: Celebration of the end of the residency: public presentation in the WHAT building.

Summary

As I said at the start of this report, I was employed through this residency as a musician rather than a music therapist. This was a new venture for me as my role was different than a therapy post. However, the residency provided me with a unique opportunity to introduce musical input right at the beginning of the lives of these vulnerable patients. In my music therapy practice with older children, I have seen how the negative effects of postnatal maternal depression and resultant attachment disorder can be present many years later, and I believed that it would be of great benefit to try to ease the distress of difficult or premature births as early as possible for both babies and their families.

In Ireland there is an increasing awareness of the need to give vital perinatal and postnatal support to women in order to support the physical, intellectual, emotional and social development of their children. A couple of years ago the HSE produced a document that identified the service that is needed to do this, although it has yet to be implemented.https://www.hse.ie/eng/services/list/4/mental-health-services/specialist-perinatal-mental-health/specialist-perinatal-mental-health-services-model-of-care-2017.pdf

Music therapy can have a profound effect on the wellbeing of babies in neonatal care, leading to improved clinical outcomes for them and their families. It is a low-risk and low-cost intervention that can save significant distress and money later on, as it helps babies to recover physically and emotionally from their precarious early days, enables families to form positive attachments and reduces vulnerability to emotional stress in children and their mothers.

I hope that the six months that I spent on the neonatal wards at UHW have had a positive effect on at least some of the babies and their families that I met during my time there.

I would like to warmly thank the wonderful staff on the neonatal wards, the families who entrusted me with the care of their very tiny and precious infants, and the fantastic team at Waterford Healing Arts Trust who gave me such support and friendship throughout the residency. It was a joy and a privilege to share in the first days of the babies on the wards, and despite their tender age they proved wonderful teachers.

"I think it's marvellous, I've never experienced anything like it! It's so calming - she was so soothed by it. It really made a difference and it's such a simple thing. It should be on all the units."
(Grandmother)