

‘The People in the Purple Shirts’: Froebelian insights to a Singing Medicine project in a Children’s Hospital

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Abstract

Friedrich Wilhelm August Froebel (1782–1852) yearned to promote and foster the harmonious and holistic development of young children through a combination of outdoor activities, songs and games. His Mother Songs, with games and exercises for mothers and their infants, aimed to encourage the use of senses, limbs and body to increase body awareness and promote mental activity. This article reports on a qualitative interpretive study into the role of a Singing Medicine project in a children’s hospital where children on all wards are invited to participate in singing games and activities. An aim was to understand how the application of Froebelian principles can help us to understand and conceptualise children’s rights and well-being in restricted environments such as a Children’s Hospital. Methods included semi-structured interviews with a range of health and education professionals who support children in a children’s hospital in England. In contrast to previous largely quantitative studies relating to the transferable benefits of arts in health projects, the findings from this study suggest that participants value the human connectedness imbued by a Singing Medicine project to children, families and health professionals. Wider benefits for children’s holistic development and empowerment to make choices through participation in singing games were also raised.

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Introduction

Arts in Health projects are growing in number in the UK for children with chronic health conditions and long – term illnesses with the opportunity to be involved in participatory arts projects. One such project, Singing Medicine® (SM) is an award-winning project (NHS Health and Social Care; Royal Society for Public Health) that is delivered weekly to all wards and in-patient areas at Birmingham Children’s Hospital (BCH) by Ex Cathedra vocal tutors. The vocal tutors are considered by parents to be part of the child’s ‘Hospital Family’ (Blackburn, 2019). The project aims to bring all the benefits of play through singing to children staying in hospital using a repertoire of songs written by the vocal tutors themselves with additional well-known singing games. Whereas previous studies into participatory arts in health projects have been quantitative and explored the transferable benefits or improvement of a particular condition (Fancourt and Finn, 2019; Fancourt and Steptoe, 2019), this qualitative study explored the subjective experiences and views of cross disciplinary professionals working with children who participate in the SM project.

Context: Birmingham Children’s Hospital

Birmingham Children’s Hospital (BCH) is a leading UK specialist paediatric centre, offering expert care to 90,000 children and young people from across the country every year. The hospital provides care and treatment for the most complex heart conditions, chronic liver and kidney disease, cancer, serious burns, epilepsy, neurology and cystic fibrosis. It is also home to Europe’s largest single site paediatric intensive care unit, a 24-hour accident and emergency service, regional major trauma centre and new mental health service for 0-25 year olds. One result of chronic and long-term illness is a reduction in children’s ability to make

everyday choices about their world, combined with stress and restricted play opportunities. For this reason, there is both play and education provision on-site. Included in this is a fully-equipped school, a play centre and the Singing Medicine project.

The role arts in health projects in recovery from illness and long term conditions

Participatory art projects are growing in number in the UK (All-Party Parliamentary Group on Arts, Health and Wellbeing (APPGAHW) 2017a). The APPGAHW (2017b) and Fancourt (2017) have identified a range of ways in which the arts can support the health and well-being of individuals, communities and societies, including assisting with specific conditions and promoting well-being, healthy behaviours and social engagement. Included in the broad definition of arts are singing and musical activities, performing arts (such as dance, drama and juggling) and visual arts (such as painting and drawing) (APPGAHW 2017b, Fancourt 2017)

Not all of these projects include children but it is interesting to highlight the suggested benefits of hospital participatory arts projects that focus on children's health and wellbeing. For example, Preti and Welch (2004) identified benefits for young children exposed to music in hospital settings. These included the effects of music modifying the child's perception of pain and reducing stress, whilst at the same time having an integral educational element that supports musical development. Dowler (2013) found that improvised somatic dance (a non-directive approach to creative dance and movement that emphasises internal physical perception) reduced anxiety and improved movement in young patients (aged 14 months to 17 years) suffering from acute pain following surgery or rehabilitation from brain injury. This included patients on the orthopaedic, cardiac and neuromedical wards. Art therapy has been found to diminish fear and pain and build coping strategies for children with chronic

conditions (Teapot Trust, n.d.) and creative writing to increase literacy and wellbeing in adolescents whose conditions prevent them from attending school (See Beyond Words, n.d.)

In their review of literature on music in hospitals for children, Preti and Welch (2004: 331) identified the following beneficial themes:

- interconnections between psycho-acoustic phenomena and emotional responses, related to the communication and evocation of emotions through music and the related effects that this interconnected process has on the different people involved;
- physical/physiological impacts, concerning the influences that music has on the physical, physiological and psychological conditions of children, and how these effects improve their hospitalisation;
- therapeutic, related to the different ways/techniques of playing music in hospital and their use according to different situations;
- social, regarding the impact of music on facilitating interpersonal processes such as interaction and verbalisation;
- educational, concerning the (usually unintended) educational outcomes that musical provision can have for children within a hospital setting.

As can be seen from the discussion below, there is resonance between these findings and the intended benefits of Froebel's Mother Songs for children's development.

Froebel and Froebelian principles

Friedrich Wilhelm August Froebel (1782–1852) has an international reputation as a pioneer, and is perhaps most well-known for his creation of the 'kindergarten', which encapsulates

several of his key ideas about the importance of children's self-directed activity, nature, and the community (Smedley and Hoskins, 2015).

Froebel yearned to promote and foster the harmonious and holistic development of young children through a combination of outdoor activities, songs and games. The commitment to learning through play, and to nurturing children's own interests, enabling them to engage meaningfully with their surroundings are central Froebelian tenets. Symbolic activities, such as art, language, music and dance were all thought by Froebel to nourish the child's inner life as well as providing a means to transform and express understanding (Manning, 2005).

Froebel's Mother Songs

Froebel placed emphasis on singing as a pedagogical tool and emotional conduit (Powell, Gouch and Werth, 2013). In 1843 he published his book of songs and instructions for mothers of babies and very young children, 'Mutter und Koselieder' (Mother Songs) (Froebel, 1843). The songs are accompanied by play games in the form of hand or finger exercises. Froebel argued that the act of singing to babies was a means to convey motherly feelings of love and care; that singing (his) songs could stir latent emotions, which he believed women were biologically predisposed to feel; and that the content of his songs helped both women and babies to understand their place, role and purpose in the world and connectedness to their surroundings and their (divine) creator. In addition to aiding bonding and connectedness between mothers and infants, the actions involved in the games and exercises were designed to encourage infants to use their sense, limbs and whole body. This in turn he argued would strengthen the limbs, body and senses, leading to a more purposeful use of them, an awareness of things as they are and consideration of them. These sensori-motor activities provide the bases for mental activity (including perceptual judgement, logical thinking and abstract thinking (Leibschner, 1992).

Froebel suggested that children must be taught the form and shape of artefacts and symbols since once these are known their own imagination, rather than adult direction could and should drive learning through play emphasizing children's agency and control over their own learning (Manning, 2005). The role of education was to excite and empower children and the expectation was that children would demonstrate and exhibit this excitement and empowerment in other areas / contexts of their life. Excitement and empowerment are arguably most effectively achieved through play (Bruce, 2011). Vitality and excitement, Froebel suggested are inextricably linked to play which has a transformative potential uniting human beings, god and nature in a way that is both mystical and spiritual (Lilley 1967; Whitbread 1972). Froebel argued that (1887/1974: 54-55):

Play is the highest phase of child development – of human development at this period. Play is the purest, most spiritual activity of man at this stage, and, at the same time, typical of human life as a whole – of the inner hidden natural life in man and all things. It gives, therefore, joy, freedom, contentment, inner and outer rest, peace with the world. It holds the sources of all that is good.

In contemporary early years practice, singing has been found to provide a medium for intimacy and connectedness between practitioners and infants in the manner suggested by Froebel (Powell, Gouch and Werth, 2013). For children with long-term chronic ill-health requiring hospitalisation and medical intervention, the possibilities for access to play and creativity may be limited, highlighting potential inequities in social determinants of health (All Party Parliamentary Group on Arts, Health and Wellbeing APPG, 2017a) which include access to creative and cultural activities. These inequities can be mitigated through involvement in participatory arts in health projects such as the Singing Medicine project (APPG, 2017: 30):

The arts provide a route to better health and wellbeing while health provides a route to the arts that can help to overcome persistent inequalities of access.

APPG (2017a) and Fancourt (2017) suggest a wide range of socio-medical, education and psychological benefits for children from participation in arts in health projects not least providing a medium through which they can exercise control and agency over their life in an environment where acute care focuses on survival, recovery and rehabilitation rather than personal choice.

Aims of the study

This research study aimed to explore the role of a Singing Medicine project in a children's hospital. A further aim was to understand how the application of Froebelian principles can help us to understand and conceptualise children's rights and well-being in restricted environments such as a Children's Hospital. Contemporary Froebelian principles are (Froebel Trust, 2019):

- The integrity of childhood in its own right.
- The relationship of every child to family, community and to nature, culture and society.
- The uniqueness of every child's capacity and potential.
- The holistic nature of the development of every child.
- The role of play and creativity as central integrating elements in development and learning.
- The right of children to protection from harm or abuse and to the promotion of their overall well-being.

Research questions included:

1. What are the views and perceptions of health and education professionals who work in the Hospital on the role of music and singing games in children's experience and recovery of short and long-term health conditions?
2. How can participatory arts projects in a children's hospital bring new understanding to Froebelian principles?

It should be noted that the views and perceptions of parents and wider family members were also sought. However, this paper will focus on professional views as family views are reported elsewhere (see Blackburn, 2019).

Methods

The research approach involved a qualitative interpretive design (Denzin and Lincoln, 2017). The aim was to elicit thick descriptions and subjective experiences of the SM project (Lincoln and Guba, 1985). The aim was to select a maximal variation sample of healthcare experiences to participate. Similarly, a broad range of professionals were invited to participate. In reality opportunity sampling was adopted as it proved challenging to identify participants who agreed to take part in an interview who also had sufficient time to do so. Interviews were individual and lasted between 15 minutes and 40 minutes and took place at the Hospital in a quiet space convenient to each participant (offices identified by participants and chosen by them). The variation in length of interview was a reflection of participants' time, knowledge of the SM project and insights into the involvement of children and families in it.

Interviews followed a semi-structured interview schedule that provided the opportunity for participants' own reflections on their experiences and knowledge. Interviews were digitally

recorded, anonymised by use of a code and transferred to a computer hard drive. Following this, non-participant researcher observations of SM sessions were undertaken on three occasions where consent was given and it was not considered intrusive (by parents and health professionals) to the child's enjoyment or medical care.

Data were analysed to answer the research questions at the first level allowing common and discrepant themes to emerge subsequently. Research questions identified *a priori* themes and thereafter emerging themes were identified. Qualitative content analysis provided the opportunity to organise, condense and categorise data through a process of interpretation of and inference from participants' original expressions. This was an inductive process rather than being theory guided and deductive. A process of reducing and clustering to form initial codes or sub-categories that described followed. The unit of textual analysis was an extract from a transcription with factual connection to an idea and issue. After initial codes had been identified in data of two or three transcripts, codes were compared with each other according to similarities and differences to determine which data 'look alike' and 'feel alike' as suggested by Lincoln and Guba (1985, 347). The data analysis was informed by processes of thematic analysis – a foundational analytical method designed to identify, represent and report thematic patterns that occur within the data (Braun and Clarke 2006).

Since the research questions guided the study, the first level of qualitative data analysis for interviews transcripts and observation data, was *a priori*. It allowed content analysis to organise, condense and categorise data. This was followed, at the second level, by an inductive process that allowed initial codes or sub-categories that described participants' experiences to emerge. After initial codes had been identified in the first transcripts, subsequent ones could be compared and contrasted for similarities and differences in categories. Categories stayed close to the original expressions or records. Some were changed

through abstraction and through combining of sub-categories during the analytical process (Charmaz, 2000).

Ethical considerations

Ethical considerations related to participant informed consent, right to anonymity, right to withdraw at all stages of the research and to power relationships between researchers and participants. All participants were reminded of their rights throughout the research process and the circumstances concerning consent are discussed below. The researcher accepted that research involving children and their experiences is problematic and inferential (Greene and Hogan, 2005) and that it is important to consider the social situation of their experiences (Heddegaard and Fleer, 2008)

Consent

Central to the issue of consent is the concept of *informed consent*, which relies on potential participants being fully informed of all the relevant issues relating to a study prior to providing formal consent. Diener and Crandall (1978: 57) define informed consent as:

The procedures in which individuals choose whether to participate in an investigation after being informed of facts that would be likely to influence their decisions.

The fundamental importance of consent, freely given, to research participation reinforces the view that the researcher should always explain fully the purpose, process and intended outcomes of research and seek consent on that basis (Mason, 2004). Furthermore, participants should be competent to make decisions relating to participating in research, make such decisions voluntarily, without pressure from researchers or research funding bodies, and fully comprehend the nature of the study and the implications of its outcomes to them personally (Cohen *et al.*, 2007). It could be argued that in the absence of such comprehensive

and thorough informed consent, participants are more accurately described as ‘research subjects’ than ‘research participants’ (Smyth and Williamson, 2004).

In this study, adult participants were provided with full information relating to the nature of the study, how it would be conducted, how data would be stored and their right to refuse consent and withdraw from the study at any point. The implications of the outcomes of the study for them, including how the study would be disseminated, their right to confidentiality and anonymity during and after the study, and details of the sponsors of the study (The Froebel Trust) were discussed. Information relating to the study was provided in advance of seeking consent, in order that participants had sufficient time to consider the implications and information prior to giving consent. Children’s and **adults’** identities have been protected with the use of pseudonyms in all documents and dissemination material. Data were stored securely and password-guarded.

Consent with children

Consent is a key issue in research with children which raises hard, often unresolved, questions (Alderson, 2004). For example, there is no simple answer to the question of when children are old enough to give consent. Within the UK, the term ‘child’ means anyone below the age of 18 years. The 1948 United Nations *Convention on Human Rights* and the 1989 *Convention on the Rights of the Child* (United Nations, 1989) granted rights to children between the ages of birth to eighteen to have their wishes known, listened to and respected. The dilemma for researchers is that the perceived ability of a child to give consent will depend not just on an individual child’s chronological age, but also on their level of understanding. Requiring high levels of understanding for a valid consent, however, could operate to exclude research with children (particularly those who might be described as

vulnerable) unless an adult has consented on their behalf (Mason, 2004). This poses an ethical dilemma for researchers, which required reflection.

Whilst on the one hand researchers need to develop ways of engaging children in a wide range of different circumstances, on the other hand in order to obtain high-quality information, they must also ensure that children's rights are safeguarded (Mason, 2004). In this respect, young children in hospital settings are surrounded by adults who have a legal responsibility to act as 'gatekeepers', safeguarding them from outside influences, such as researchers, and arguably guarding their free choice of whether or not to participate in research (Mason, 2004). Children of all ages are subject to the control of those who have parental responsibility for their welfare and safeguarding. Legally, researchers who wish to include young children who are not considered mature enough (chronologically or developmentally) to make their own decision about participation must obtain the agreement of a least one person who has parental responsibility for the child (Mason, 2004).

Thus, gaining access to children in a hospital setting for the purposes of investigating an issue relevant to them entailed a multi-staged process involving negotiation with a number of adults. In this study, consent was sought firstly from the professionals responsible for individual wards and the parents and carers of children who consented to participate in the study. Fine and Sandstrom (1988: 46) urged that researchers nevertheless provide such children with an explanation of their involvement as:

... children should be told as much as possible.. their age should not diminish rights, although their level of understanding must be taken into account in the explanations that are shared with them.

Consequently, in this study simple explanations were provided to children that an adult would be watching the SM sessions because she was interested in how they supported children and

families. For child participants (for non-participant researcher observations), children and their parents were informed when the researcher was on site and asked by health professionals whether they were happy for any session they participated in to be observed. Only those sessions/children and parents who consented were observed.

In addition the notion of assent was considered appropriate in addition to the adult safeguarding described above. It must be stressed that none of the children observed were either non-verbal or un/semi-conscious.

Assent

Young children can be quite demonstrative in expressing their views, even if they do not verbally reject a researcher's presence or questions. They can, for example, move away from a person they do not wish to be near (Aubrey *et al.*, 2000), refuse to answer questions, change the topic of conversation or in extreme cases be physically aggressive if they feel particularly unhappy about situations. The decision to adopt an ongoing process of assent whereby the child's acceptance of the researcher within the hospital spaces was taken as assent to participate in the research was considered appropriate. Health professionals and parents were considered competent, as caregivers, to make ongoing judgements regarding any unwillingness on the part of children to participate or distress exhibited by children in relation to the researcher's presence, and to allow withdrawal from observations when deemed necessary. Assent is not a term which sits comfortably with all researchers, some of whom argue that it may be used where children are simply too afraid, confused or ignored to refuse (see Alderson and Morrow, 2011). This indirect approach for assent/dissent has been successfully used within other studies involving children with developmental delays/disorders (Brooks, 2010; Beresford, 1997; Konaka, 2007). As a practitioner and

sensitive professional, the researcher was mindful of her duty to be respectful of children's rights, views and well-being in the planning and conduct of this study.

Additional concerns related to participants who may be emotionally and psychologically vulnerable due emotional and physical stress due to providing long-term care. To reduce the power relations between the researcher and the participants in this study, participants were not approached initially directly by the researcher in order to avoid placing undue pressure on professionals, parents and children. Rather invitations to participate were issued by the vocal tutors (for professionals) and by health professionals (for parents and children). An information leaflet and consent form was provided to professionals and parents prior to any visits from the researcher. Only those parents and professionals who had indicated an interest in participation were contacted by the research to follow up. The researcher was mindful of the effect of her presence on hospital activity and sensitive to being as non-intrusive as possible.

The researcher familiarised herself with Hospital safeguarding procedures and a Research Passport was obtained from the Hospital before data collection commenced which offered an additional layer of ethical and safeguarding protection. In addition, the researcher joined the vocal tutors in the surgical scrub, gown and glove procedure before entering and after leaving any hospital spaces (cubicles, wards and playrooms) to reduce any infection risk in line with hospital and SM policy.

Ethical approval was given by the Faculty of Health, Education and Life Sciences Academic Ethics Committee and North of Scotland Research Ethics Service.

Findings

Interviews

Thirteen participants were involved in semi-structured interviews as shown below:

PLACE TABLE 1 ABOUT HERE

The participants were aged from 27 to 56 years old and held varied professional roles within the Hospital. They had worked in the hospital for varying lengths of time from a few months to two decades and worked with children from birth to early adulthood. The majority of participants were female with only the senior chaplain, the consultant paediatric liver specialist and the consultant paediatrician interventionist being male. Findings from interviews will be reported under the thematic headings of:

- People in purple shirts: Characteristics of the Singing Medicine project (vocal tutors/time and place)
- Children's learning and development (socio-emotional, cognitive and language, musical physical, spiritual and cultural and alignment with education frameworks)
- Families (experiences, memories, bonding and relationships, family life)
- Normalising with medical care

People in purple shirts: Characteristics of the Singing Medicine project

Singing Medicine professionals

A strong theme that emerged from analysis of data was the role of the personalities and characteristics of the vocal tutors involved in the project. The Singing Medicine vocal tutors were specifically referred to in very descriptive ways. For example, they were described as 'fun and enjoyable', 'gentle', 'inclusive', 'educational', 'people in purple shirts' or 'people with smiley faces'. This was exemplified by the following comment:

We started to see ladies in purple coming in to the ICU, they would come in usually in pairs and they would come to ask the nurses which children were most appropriate to have some interactive time with the singing. And they would sing to small children, infants in a cot up to bigger children on ventilators and I think they would tailor what they were singing to the age group appropriately. And they would leave a purple sticker on the children to say that they had had therapy and that was also a badge they were quite proud of really. So, it generally left a positive sense of warmth in the bed space and you could get a sense that the children benefited from it. (Participant 10)

Further to this, their contribution to the characteristics of the ward was commented on. They were described as ‘bringing a predictable pattern to the ward’, ‘having a very positive effect on the children’, ‘providing entertainment and distraction’.

Time and place

Some comments made by participants suggested that the Singing Medicine project was particularly relevant in some contexts more than others or conversely not particularly suitable in some contexts. For example, singing was noted to be ‘especially important for post-transplant patients’, to ‘work well with children who haven’t responded to other stimuli and children who have mental health problems’ and to provide positive experiences in end of life situations:

But for me the benefits are enabling children to have positive experiences when their families and they are going through the kind of worst possible time of their lives really. So we've used it really beautifully around the time their child, before the child passes away actually and that's worked really well.

Conversely it was thought to be not appropriate if someone in a bed nearby was 'having a hard time'. There were also reported benefits for children who experience sensory impairment:

And I think there is benefit in yes... when a child is asleep I've seen it work really well, as well with children who might not react to sight or can't see. Or they might not react to touch particularly well because they are sensory overloaded or they've been used to negative touch rather than positive touch, but actually they respond really well to music or to singing or to certain instruments. If children don't respond to touch they may still respond to music or certain instruments

It was also described as a distraction therapy for some children. For example if children are placed in isolation for protection from infection stressing the importance of contextual aspects:

One of the distraction therapies is reading books, but another distraction therapy could be just singing with the singing team and having their bloods done. The most beneficial effect I saw was in one of the children where she was in isolation, so there was nothing, you know, she was... I felt sorry for the child that we had to place her in isolation, to protect her from other infections for her this was a highlight of her week, having people coming into her room, interacting with her, having her own time, doing what she likes doing most and the effects could be seen on the weekend because she would carry on singing to us on the ward round (Participant 12)

Children's learning and development

Socio-emotional development

A number of comments were made by participants in relation to the effect of the Singing Medicine project on children's socio-emotional development.

But also healing emotionally and healing in a broader sense I think. It's providing a positive experience but it's more than just normalising play I think because we can do normalising play. It's more tailored to the individual child and it is something that's almost a prescriptive thing, so we do referrals as specialist play service. (Participant 1)

Participants mentioned the emotion/mood changing capacity of the project saying that it calms children or it 'cheers children up', and distracts them from unpleasant medical procedures. It can also act as a stimulant for children who are depressed:

So I think that music can be highly soothing, and I've often watched the benefits for children who are highly stressed. Just by having some music can change their whole environment, and be calming. It can also work as a stimulant. So for a child that's perhaps depressed and not wanting to engage in anything that you're doing, just by changing the noise, just by implementing some music can actually just be a real stimulant and a positive experience for them. (Participant 11)

The comment above suggests that the singing games can help to positively alter the acoustic ecology of hospital spaces. A couple of people mentioned that the project helps to build memories for parents and families to draw on 'if the worst happens' when children do not recover from their illness. Other comments in this theme were that the project is

‘empowering’ and something children can choose, ‘it enables children to make choices’ or ‘you can see the happiness on children’s faces when they’re singing.’

Broader aspects of learning and development

It was noted to provide opportunities for educators to observe children and align what they observed with the Early Years Foundation Stage (EYFS) goals or other curricula. Connected to this the vocal tutors were reported to work with education targets determined by educators within the project to facilitate children’s learning and development:

This one child is like, they start something and she’ll go next one. So we are trying to get her to sit for a whole... because she loves it but we are trying to encourage her to sit for a whole song, so they are kind of helping with her education as well really. And like with our babies it is teaching them maybe to hold a rattle and, you know, at the start you might be having to keep putting in that hand and by the end they are holding it, so you are helping them reach their potential and encouraging them to see what they can do. (Participant 13)

Some participants thought that the project facilitated opportunities for socialisation and that children were learning new songs, learning to beat a rhythm, learning actions to songs and increasing their vocabulary. :

Some of them [children] come in and they are quite shy when they come in, so they don’t tend to mix with the others straight away. (Participant 9)

They are learning some new songs, some new skills; they are learning to beat a pulse on the drum, and all these sorts of things and actions to songs.

It was also thought to help with learning colours, numbers, new objects, to encourage creativity and expression, to promote motor development, hand-eye co-ordination and neuro-development which ‘health professionals don’t always have time to think about.’

I suppose from a neurodevelopment point of view, if I think of particularly the neonatal population, it’s not something that we’re very good at, to be honest with you, in intensive care. Because I think we’re so focused on the acute stuff. So you’ve got this baby who’s maybe two or three months old, and if they are a little bit awake, and they’re a little bit unsettled, and the Singing Medicine comes in, it’s almost they become quite aware, actually, which is really, really nice. (Participant 10)

Linked to this a couple of participants mentioned the way in which the vocal tutors work with children’s individual interests and adapt to children’s preferences. They do this by ‘getting to know’ each child.

Spiritual and moral development

The way in which the Singing Medicine project promotes spiritual and moral aspects of hospital experiences was mentioned. The benefits of the project in terms of the way in which it connects people from diverse backgrounds and enables children to experience a sense of achievement and participative empowerment was exemplified by the following comments:

[It] enables us to listen to children’s souls regardless of religion, ethnicity, age or other characteristics, values and beliefs. (Participant 8)

I think there’s that around achievement and a sense of unity and connection, and belonging to a wider community and connection to different, kind of, psychological parts that supports wellbeing.

Families' experiences

There were a number of comments made in relation to the way that the Singing Medicine project influenced the experience that children and families had at Birmingham Children's Hospital in a positive way. For example:

Some of the children have unpleasant, intrusive and painful medical interventions for example haemodialysis – the Singing Medicine project is something they choose rather than something they have to do or have to have done to them (Participant 5)

The project appears to bring a sense of normality for children and a wider variety of faces for the children to see, it 'something nice' for the children to look forward to in the midst of unpleasant experience of medical interventions, something children can choose rather than something that is done unto them. One participant discussed the way in which the project helps children to connect previous musical experiences with their hospital experience as it provides 'familiarity with previous music experiences in a familiar environment.' Most profoundly a couple of participants commented on the possibility for the project to help children and families build positive experiences of their hospital stay and to help them to forget why they're visiting the hospital:

Enables children to take a positive memory away from hospital, rather than remembering only that they had blood samples taken, they might also remember the pleasant experience from the SM people. (Participant 7)

Comments related to families were varied and included those that mentioned the way in which the Singing Medicine project helped with family relationships and those that helped families to cope with difficult and challenging situations

It was also noted as something that ‘helps parents see their child enjoying something and being happy:

So for me the benefit is for the child but also for the family as well, because they might not have seen their child have anything positive for weeks and then this comes along and it's just that little glimmer of light for them really
(Participant 5)

In this respect, the project was described as encouraging family participation and giving parents something to do with their child in the hospital environment by contrast to other activities which parents can only observe.

In addition, the project was noted to help with building memories with family for the future if a child passes away. It was also noted as a reminder of the past (before illness) and something about which parents could communicate with their child both in the hospital and at home afterwards.

Normalising medical care

In terms of medical aspects / value of the project comments were made by participants in relation to children’s neurodevelopment, heart rate, experiences, mood and benefits for staff as well. One participant mentioned that the project ‘enables us to think about experiences as well as medical care and also think about neurodevelopment from emotional experiences.’

Some participants mentioned that the project had positive effects for staff for example that it was encouraging for staff to see children enjoying themselves, that it had a ‘positive effect on nurses’, in that ‘it reminds nurses that they are looking after a person first and a patient second’ and that it positively influences the acoustic ecology of restricted spaces which is

beneficial for children's well-being. A couple of participants suggested that the project regulates children's heart rate and also helps with ventilation

Almost all children in intensive care have continuous heart rate and oxygen saturation monitoring. There are children who are on a ventilator who have a life support delivered who are having monitoring for those things, blood pressure and heart rates that you would see normalising numbers from a distressed set of numbers to a more calm set of numbers over the time of the Singing Medicine session (Participant 10).

Some people mentioned that the project can positively impact a patient's condition by making patients more relaxed (it changes their mood); whilst another said that it changes the tone of the bed space environment.

One participant felt that the positive experiences provided by participating in the project helps with healing, whilst another mentioned that it improves a child's experience of intensive care where:

They may at times be semi-conscious to might not communicate verbally for a while, however, even though they can't speak, they can still hear music and experience something immensely positive. (Participant 3)

It was also reported to 'take away pain' from illness or medical procedures.

Observations

Unstructured narrative observations were undertaken on three occasions. Children were asked individually if they were happy for the researcher to be present and their ongoing verbal and non-verbal signs and signals constantly monitored for any signs of discomfort or distress. Table 2 below describes the context and details of the three observations.

PLACE TABLE 2 ABOUT HERE

Table 2: details of observations undertaken

Themes that arose from analysis of observation are discussed below.

Giving children choices – in all three observations, children were able to choose whether or not they wished to play an instrument, what kind of instrument they would like to play, which songs / rhymes to sing, which verses and what items to include in the verses, for example which food to take on a picnic. Most importantly they could choose whether or not to participate, their own level of participation and when to stop. Their manner of expression was not always overt or obvious, however, and the vocal tutors continuously monitored children's level of comfort, fatigue and wellbeing. This meant that they were able to end an activity when necessary to ensure children's wellbeing was the primary indicator for decision making during delivery of the sessions.

Following children's lead – vocal tutors were observed to watch children's actions and listen closely to their expression and to change songs when the child appeared to lose interest, to narrate a child's actions with song (for example when a child on the oncology ward was tickled by his grandparent, the tutors created a verse about it and embedded this within the song being sung). Linked to this, the vocal tutors appeared to be following children's cognitive behaviours (schemas) (Athey, 2007). For example one child on ward 1 demonstrated an interest in banging (on a drum) and the vocal tutors quickly introduced a song about banging. Following this the same child started to 'blow raspberries' into the air and the vocal tutors changed the song to incorporate this.

Facilitating medical interventions and overall patient care – the vocal tutors noticed when medical / health professionals needed to apply an intervention / provide care and they responded accordingly. For example on ward 1, nursing staff were attempting to change tubes

on a child's chest and stomach area. The vocal tutors introduced verses into the song they were singing with the child that prompted her to raise her arms and hands above her head, giving the nursing staff clear access to the required body area. More importantly the child appeared to be totally engaged in the singing and music games so less attentive to the intervention being applied. This high level of engagement in the singing and music games was also observed for all other children who participated. Children appeared to be content during their participation. They appeared to be receptive to participation and often quite enthusiastic. One child in particular on ward 1 changed during the activity from appearing rather restless to a more focused and content state.

In addition to this, the vocal tutors worked within the hygiene and patient safety routines embedded within the hospital ensuring that they and all equipment used was rigorously cleaned before entering a ward, before entering any isolation rooms, before approaching any individual child, and again after engaging with any child.

Building memorable moments for families – there were opportunities for family members (including parents, grandparents and siblings) to participate with their child, to learn new songs and activities and to build positive memories of their child's experience in hospital. The activities provided by the vocal tutors focus on fun and enjoyment in contrast to the necessary but sometimes painful or uncomfortable procedures administered by health professionals.

Focussing on the holistic development of each child – the vocal tutors were observed to respond to each child's individual choices and interests wherever possible. Within each activity, there were opportunities for the development of mathematical skills, memory, physical development, speech, language and communication, socio-emotional skills, singing and musical skills.

Discussion

Limitations of the study

This study included a small sample which limits the potential to generalise the findings. However, the sample was as varied as possible and the findings are relevant to the hospital setting in which the study was undertaken. Further studies with a larger sample and an evaluative aspect would provide a stronger evidence base. The ethical concerns of a study involving vulnerable participants in a hospital need time to address sufficiently well for an NHS ethics application. It would have been preferable to involve children's voices had funding and time allowed, and this is an area for further research.

Participants and themes

Thirteen participants were involved in semi-structured interviews. Themes that arose from interviews included the significance of characteristics of the Singing Medicine project; contribution to children's development and learning; families' experiences; normalising medical care. From observations there was evidence of choices for children; following children's lead; facilitating medical care; building memorable moments for families and focussing on children's holistic development.

Relational aspects

The characteristics of the project were emphasised including the identity and personal attributes of the vocal tutors. They appear to hold attributes noted by Hoskins and Smedley (2015) of understanding the imperative of play and enabling environments in developing children's participatory competencies. They 'begin where the learner is' (Bruce, 2011: 30). The singing games appeared to provide a medium for connectedness and some degree of intimacy between children and parents as suggested by Froebel (1843) and Powell, Gouch and Werth, (2013)

Medical and contextual aspects

Medical benefits of participation in the Singing Medicine project were reported in terms of normalising hospital experiences and medical care. Furthermore there was discussion of reducing children's heart rates and assisting ventilation. Further to this, the benefits for staff well-being that result from observing children experiencing something pleasurable and uplifting were noted. Improvement in the tone of the 'bed space' and calming children/reducing pain were additional benefits as well as providing a means for children with sensory impairments to engage and respond where they might not have otherwise been able.

Contextual aspects of the Singing Medicine project included the appropriateness of its use for end of life situations, particular benefits for children with mental health problems, children who haven't responded to other stimuli, younger/developmentally younger children, post-transplant patients, children placed in isolation and not receiving many visitors (where it can provide distraction) and children who need rehabilitation. The challenge for the vocal tutors is to support children and families in a way that does not disrupt or distract from the important work of health professionals in the hospital (for example in end of life situations).

Professionals value the contribution that the Singing Medicine project makes to children's emotional state during their treatment at the Hospital. This can include helping to calm children, improve their mood or stimulate them where necessary. It can also serve as a distraction which helps to reduce anxiety, pain and stress in relation to medical treatments as noted by Preti and Welch (2004). Children have a choice whether and how to participate in the singing games and this was perceived as important for and to contribute to their happiness. Furthermore, SM is beneficial for members of staff at BCH and whilst this is not the primary aim of the project, it is an important secondary outcome.

Children and families alike were perceived to have an improved experience of their care at BCH if they participated in the Singing Medicine project. This is because the project brings a sense of normality and offers choices and pleasant experiences in the midst of often unpleasant, intrusive and painful treatments. SM brings structure to the children's week and offers a way to connect past experiences from home, family and other social settings to their experience in hospital.

Educational and development aspects

The Singing Medicine project offers the opportunities for educators to observe children and align observed progress with relevant curricula such as the Early Years Foundation Stage (EYFS) (DfE, 2018). In addition the vocal tutors collaborate with educators to facilitate children's educational targets. Further to this children's participation in the Singing Medicine project was perceived as beneficial to children's holistic development and was thought to contribute to a number of areas of formal curriculum and development domains. An important aspect of this was the way in which the vocal tutors take the time to familiarise themselves with each child's interests and competencies as noted by Bruce, 2011 is crucial to liberating children's own ideas (Liebschner 1991).

An important contribution to children's spiritual and cultural experiences during their stay at BCH is highlighted from this study. The manner in which the Singing Medicine project facilitates connectedness between people from diverse socio-cultural-economic backgrounds and the sense of achievement and participative empowerment that was enabled by the project were thought to have positive influences on spiritual and cultural wellbeing. These ideas bring Froebel's notions of play bringing 'joy, freedom, contentment, inner and outer rest, peace with the world and play providing a source of something that is unquestionably good' (Froebel, 1885) into contemporary arts in health contexts.

Family aspects

The benefits of children's participation in the Singing Medicine project for families and family practices were predominantly related to the benefits for family relationships and joint participation in an enjoyable activity. This was because participation from all family members is encouraged and families can continue to participate in new songs learned through the project together at home. Therefore the project helps to re-build or strengthen family bonds and enables the development of 'happy', 'positive' memories which can be shared together when the child leaves hospital or enjoyed by parents and other family members in the event that children do not recover from their illness. It can also bring happy memories for families of events before their child was ill and provide time and opportunity for parents to have respite during their visit to the hospital should they not wish to participate with their child. These benefits extend beyond Froebel's idea of the child benefiting from learning through play to the concept of family learning through play in accord with Froebel's Mother Songs. Similarly the singing games were thought by professionals to facilitate holistic child development as the games and activities were foundational for physiological benefits (such as heart regulation) as well as motor and mental benefits such as co-ordination and colour/shape recognition and language development.

Conclusion

Participating in the Singing Medicine singing games has been demonstrated in this study to benefit children's well being, right to make choices and engage in playful activities. Findings also suggest multiple other benefits for children, families and health professionals at BCH from the provision of the Singing Medicine project that extend beyond the aims and objectives of this project and beyond those suggested by previous studies. For example the benefits for building memories, family bonds and connections, children's spiritual and moral

wellbeing and education and the important characteristics of the vocal tutors offer new insights into this important augmentative area of health care. The Singing Medicine project offers children, families and health professionals unique and distinctive opportunities to participate in high quality singing interactions in a hospital environment where the normal everyday activities are more ordinary and often unpleasant.

The findings can be mapped against all six of the Froebelian principles promoted by the Froebel Trust. The project values childhood by promoting children's right to play and relax, whilst at the same time valuing children's interests, identities, capacities as well as medical fragility. The project adopts a family-centred model of operation that values the bonds and connections between children and significant others in their lives. Connecting children to the outside world of nature, culture, community and society through singing games is evident throughout the findings. The central role of play and creativity is transmitted from the playful approaches adopted by the vocal tutors. Protection from harm and promotion of well-being is facilitated by the training provided for and characteristics of the vocal tutors, as well as the contribution of the singing games to children's (and families) sense of happiness and well-being.

Singing games and activities such as those designed by Froebel in his Mother Songs are illuminated in the particular circumstance of a Children's Hospital and Singing Medicine project.

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