Insight



Supporting blind and partially sighted young people

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Focus on music: Part two

Exploring the musicality of children and young people with retinopathy of prematurity

by Adam Ockelford, Roehampton University, and Christina Matawa, Wandsworth Visual Impairment Service.

The "Focus on Music" study is the second in a series that examines how sight problems can affect children's developing musicality. Each study is concerned with the effects of a particular medical condition, which can (a) cause varying degrees of sight loss, (b) result in learning difficulties, and (c) has been reported to be associated with exceptional musical abilities or interests. Focus on Music 2 investigates music in the lives of children with retinopathy of prematurity (ROP). It follows Focus on Music 1 (septo-optic dysplasia) and precedes the upcoming Focus on Music 3 (Leber's amaurosis).

ROP affects immature blood vessels at the backs of the eyes of premature babies. While its effects can have no visual consequences, there can be new blood vessel formation, leading to retinal detachment. This severe form of ROP affects only six to eight per cent of very low birth weight babies, accounting for around three to five per cent of childhood blindness. However, there are signs that the incidence of ROP is on the up as survival rates increase for smaller and younger babies. (For more information, see Alistair Fielder's article in Insight 12, November/December 2007).

During the project the parents of 37 children and young people with ROP completed a questionnaire, and case studies were used to explore the place of music in the lives of seven children and young adults, all blind through ROP. The following summary of Focus on

Music 1 and 2 reflects preliminary findings involving relatively small groups of participants, where much of the evidence is gathered indirectly. We should think of the findings that follow as "markers in the sand" – hopefully helpful for today's children and young people, and their teachers, therapists and parents, but which may eventually be shifted by future information.

The findings so far

According to their parents, children and young people with ROP and septo-optic dysplasia are more likely to show a particular interest in music than their fully-sighted peers. There is also a difference between parents' perceptions of musical interest among those who are blind and those who are partially sighted. This suggests that level of vision is an important factor in influencing interest in music.



Joshua playing the Djembe

Parents' perceptions of the importance of music to their children also vary according to level of vision. Music is deemed to be most important for those who are blind, less for those who are partially sighted, and least of all for those who are fully sighted.

Parent's perceptions of their children's level of musical development vary according to degree of vision too. The musical abilities of blind children are most likely to be regarded as "exceptional". There is no significant difference between the partially and fully sighted groups, however, nor between those with ROP and septo-optic dysplasia. So, once again it is level of vision that appears to be the most important factor in children's musical development – more significant than medical condition.

Absolute pitch

The evidence suggests that the likelihood of a child developing absolute pitch (AP) – the ability to recognise or produce notes in isolation from others – is related to:

- level of vision. Young children who are blind

 though not partially-sighted are
 thousands of times more likely to develop

 AP then their fully-sighted peers.
- medical condition. Young blind children with ROP are significantly more likely to develop AP than those with septo-optic dysplasia.

Although most blind children with AP chose to engage actively in music-making (learning an instrument, for example), one in six did not. But four out of 10 who learned an instrument did not have AP, suggesting that AP is neither necessary nor sufficient for the development of musical interest or achievement. The possession of AP does appear to be necessary in the evolution of "savant" (prodigious) skills, and all the young people reported to be learning braille music notation were teenagers

with AP. However, there is no reason why younger children or those without AP should not have success learning the code.

Teaching methods

The case studies show that learning difficulties – even severe learning difficulties – need not impede musical development. Indeed, an early, obsessive interest in music may well contribute to musicality. However, despite the strength of their motivation, such children will almost certainly need specialist support to realise their potential, particularly in terms of technical development.

Teachers working with some blind children, particularly those with learning difficulties, may need to approach their pupils in an openminded way, allowing learning methods which are different from their partially- and fully-sighted peers. It may be that some teachers' beliefs about sight loss, particularly in combination with other disabilities, may cause them to think, erroneously, that they would be unable to teach pupils who have sight problems.

In summary, neither sight loss nor learning difficulties need be a barrier to musical fulfilment at all levels.

Adam Ockelford and Christina Matawa

Further information

"Focus on Music 2: Exploring the Musicality of Children and Young People with Retinopathy of Prematurity", ISBN 978-0-85473-861-8, available from John Smith's Bookshop, www.johnsmith.co.uk

Leber's amaurosis

A number of families are currently participating in the Leber's amaurosis research. If you would like to take part (UK or abroad), contact Adam (a.ockelford@roehampton.ac.uk) or Sally Zimmermann, Music Advisor at RNIB (sally.zimmermann@rnib.org.uk).