

Music and handicapped children

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SUMMARY. Handicapped children may gain considerably from being introduced systematically to musical sounds. The benefit comes not only from enjoyment, but also from promoting intellectual, emotional, and social development. Some children who are severely handicapped intellectually may have great musical talent, such as perfect pitch, and if this is systematically cultivated a key can sometimes be found unlocking the barriers to the child's progress. Some examples are described.

Several years' experience of working as a music therapist with children both normal and handicapped have convinced me that the use of music as an aid to learning is worth further study and research.

Introduction

The human voice may be divided into two main components, the musical and the conceptual. Initially the new-born infant listens to sound indiscriminately, but gradually it begins to discriminate, filtering and rejecting some sounds, and attaching significance and importance to others. The sound of the human voice comes to be highly valued, and its value is consistently reinforced through rewards of affection or bodily sensation. The infant perceives sound wholly in terms of satisfaction or deprivation of its overwhelming primary needs.

However, sometimes this fundamental pattern is never fully established, the child attaching significance to its own ritual patterns or to sounds from the environment. Inevitably, faulty or bizarre learning patterns result. For instance, if a baby lies in its pram listening ecstatically to the sound of the wind, and the leaves rustling in the trees, this may become its most rewarding listening experience, and it may concentrate on this, filtering out the sound of the human voice. The mother's crooning and social speech—"Look, darling, here's your lovely bottle"—"Come on, then, my love, let's have a lovely warm bath"—will not divert enough attention from his pre-occupation with the real splashing sounds of the water, or its own fascinating sucking noises at the bottle.

As an example of this faulty computer programming, one autistic child listening to his piano teacher talking, and appearing somewhat abstracted, was asked, "What key was I talking in—E?" "E flat", was the immediate and accurate response. The child had abstracted from his teacher's voice the musical components—pitch, timbre, rhythm—completely excluding the information being given.

Thought can be regarded as internalised sound, and music, too, is internalised sound, and if sound is internalised exclusively in terms of music the brain will never become a tool for normal thought. Therefore the child who is still at the infant stage of listening, whatever his chronological age, may need to learn normal auditory experiences through concentrated and progressive stages with the therapist.

Method

Listening

If there is no vocal interaction between the child and the therapist, a relationship has to be established through those sounds which the child enjoys: these may be the ticking of a clock, the sound of water running, boards creaking, or hot water pipes rumbling. By listening to these together a tenuous relationship is built up, somewhat similar to that between mother and infant before the infant is capable of thought.

Copying sounds

The next stage is to copy these sounds, and as most children enjoy explosive or unexpected sounds, one may be “glugging” as the water runs down the drain, or “slurping” as the straw drains the last of the orange juice.

The deliberate use of onomatopoeia can be useful, and words such as “splash”, “pop”, “bow-wow”, are sung or vocalised rather than spoken. Each form of play is chosen to provide pleasurable sounds for the child to listen to and copy.

Singing

At the same time the child can be encouraged to sing, and may well sing a fragment of a song before ever speaking. For instance, one child would hum the opening bars of “Bless this house” whenever shown a picture of a house, and on another occasion, when I said “Thank you very much,” two non-speaking autistic children and one nurse were all heard to be humming “Thank you very much for the Aintree iron” in response.

This is roughly equivalent to an infant’s first experimental babbling, opening its mouth, producing a sound, and listening to itself. “Ma-ma”, “da-da” are, after all, merely sounds to which objects become fortuitously attached; Barrie was aware of this when he named the dog “Nana” as the nurse to Wendy in *Peter Pan*.

Copying words

Eventually some non-verbal communication will be established between child and therapist, and by consistency over a long period of time it becomes established and predictable.

Through constant repetition the child is “patterning” its vocal responses in somewhat the same way as the behavioural responses of Konrad Lorenz’ geese. Every time a vocalisation is made emotional inhibitions are broken down, or intellectual connections confirmed, which the child had failed to make normally.

So, having established the child’s willingness to copy vocalisations, formal speech is the next step, and this again may be first introduced through song. It is physically less demanding to sing a word than speak it, as many stammerers will testify. In addition another part of the brain may be involved in this learning process, so that if there is a blockage for speech the words can be primarily introduced as music. The child learns a new sound and then discovers later that it has an associated meaning—it is learning to talk almost in spite of itself.

Single words can then be put into patterns as sentences. For instance, one child who had learned to say “water” moved on to, first, “need water”, and then “I need water”, building up the sentence backwards from the initial object-naming. By the time the entire sentence had been learned “water” alone had become part of his spontaneous speech, and he was beginning to experiment with fragmentary spontaneous sentences.

Extensions

This is the stage at which the infant finally establishes his personal identity: having listened to himself speak, he breaks the close symbiotic link with his mother and begins to think for himself.

Music, therefore, becomes separated from other intellectual functions, and music therapy becomes related to the structure of organised sound, and learning techniques for performance.

Four examples

Example 1

A boy of four and a half was autistic with extremely ritualistic behaviour (arranging and re-arranging objects in patterns) and had total eye avoidance, no apparent emotional warmth, no speech, merely an attention-seeking, high-pitched monotone sound.

By the age of seven he had achieved total eye contact with children and adults, made tentative relationships, playing games like hide-and-seek. Had also learned all the nursery school skills and could read and respond to simple sentences such as “Give me the cup”, “The sweet is on the window-sill”. He was beginning to talk, copying about 50 words, and at the same time evolving short spontaneous sentences.

Example 2

A ten-year old girl was severely mentally sub-normal. Although she babbled as an infant, no speech developed. Her only occupation was threading three or four large beads on a string.

Within 18 months she could play simple tunes on chime bars, speak about 20 to 30 words when prompted, or, on recognising a picture. She could also sing several songs and had developed social spontaneous speech as "hullo" and "good-bye".

Example 3

A nine-year old boy was diagnosed autistic, but was able to live at home and attend school. He had bizarre mannerisms, a gruff monotone voice, and spoke in short, disjointed sentences. I discovered he had perfect pitch, and although he had severe learning problems, he eventually revealed considerable musical talent.

Later, although his behaviour was still bizarre, he was accepted as a junior exhibitor at one of the London schools of music, and at the age of 15 was playing the piano and violin fluently and composing music. Although he never read a book for pleasure, he would read musical scores by the hour.

Example 4

A three-year old boy was discovered on entry to nursery school to have very little recognisable speech, obsessional play (wheel turning and tapping objects), and very little interaction with other children.

After some individual sessions of music and movement he was introduced into the group in the normal singing and dancing sessions with the other children, holding my hand and being guided by me. Once this was established, he was introduced to an older, sympathetic child who showed him the actions, dances, and songs which eventually he began to perform on his own.

This was extended to other play activities, and soon he was fully integrated into the nursery group, developing normal speech and losing his obsessional activities.

RHEUMATIC AND MUSCULOSKELETAL PAIN IN GENERAL PRACTICE

A short-term open study of ketoprofen ('Orudis'), 150 mg daily, carried out by 28 general practitioners on 494 patients with rheumatic and musculoskeletal pain is reported. Of the 488 patients assessed, 347 (71 per cent) improved while having this treatment. Tolerance was good, six patients stopped treatment because of side effects. From the results obtained ketoprofen can be considered an effective and well-tolerated, non-steroidal, anti-inflammatory agent in the management of these conditions.

REFERENCE

Gomez, George (1976). *Clinical Trials Journal*, No. 1, 19.

COMMUNITY CARE

"The changes should help to promote the spread of community care which I regard as a central feature of the planning of the health and personal social services in the coming years. I see the development of community care as crucial—not because it is cheaper, it may not always be, but because it is better for people to be cared for in their own homes and community where this is possible.

Community care enables people to have a more varied and independent life, and frees hospital and other residential accommodation to concentrate on and provide a better standard of care for people who temporarily or permanently must have in-patient treatment, or for whom residential accommodation is essential. I am sure that community care can only improve public satisfaction with our services."

REFERENCE

Ennals, D. (1976). Speech to the Medical Journalists' Association. 4 June. Secretary of State for Social Services.