

THE ORTHOPTIST'S ROLE IN A TEAM APPROACH TO VISUALLY HANDICAPPED CHILDREN

Jane Pardey
 Orthoptist, Sydney Eye Hospital
 Mary Guy
 Occupational Therapist, Royal Blind Society of NSW

THE ORTHOPTIST'S ROLE

The idea behind this paper is to acquaint orthoptists with the services of the Child Development Unit and the role of the orthoptist in the assessment of visually handicapped children. The involvement of the orthoptist in the Child Development Unit has led to the development of a Low Vision Programme to aid partially sighted children.

The structure of the Child Development Unit is as follows. It is headed by the Honorary Medical Advisory Panel.

Regular home visits are made by members of the next seven groups.

Case Co-ordinators: social workers, who provide support for the parents, and act as links between the Advisory Panel and all other groups,

Fraiberg Programme: occupational therapist,

Low Vision Training Programme: occupational therapist in consultation with orthoptist,

Stimulation Programme for mobile children: occupational therapist,

Psychotherapist Consultant

Psychologist

Kindergarten Teacher: -- fosters integration into local kindergartens
 -- provides support/back-up to these kindergartens
 -- offers individual pre-kindergarten programme.

The Co-ordinators further arrange

Referrals to the Education Department, re assessment for appropriate schooling,

Co-ordination with general practitioners, ophthalmologists, paediatricians, to explain services,

Onward referrals to community support systems, e.g. playgroups, counsellors, field welfare officers.

The services of the Royal Blind Society's Child Development Unit need to be viewed within the context of society in general, as blind children have to grow up and learn to live in a sighted community. The aim is to provide support and guidance to the family as a whole, so they may help the growing child develop his abilities to the full. The programmes are mostly home based and the aim is to encourage the child to follow the normal patterns of development as far as possible. The parents are involved in this programme through various methods such as daily physiotherapy where necessary.

Figure 1 illustrates the development of a blind child in relation to a normal child. The Child Development Unit deals primarily with children in the pre school age range from the time of diagnosis and referral to school placement begins. Early referral is important. From the developmental point of view, during the first two years, the child's sensorimotor development is focused upon as without vision a blind child relies on sound and touch for his incentive. Hand development is an important area as blind people need to be adept in the use of their hands, so a variety of sensory stimuli are used, for example finger painting.

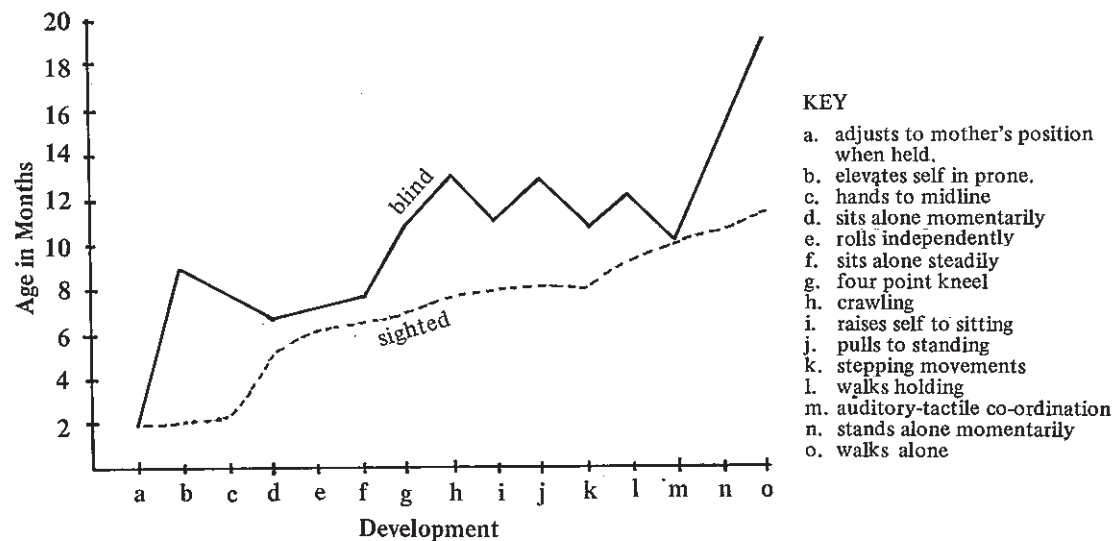


Figure 1. Development of Blind vs Sighted Children

The staff of the Unit soon felt the lack of basic information regarding the particular visual abilities of individual children. As a result, an orthoptist was seconded from the Sydney Eye Hospital on a one-day-a-week basis for a six-month trial.

The orthoptist's role in the Unit is to determine the amount of usable vision so that the Low Vision Programme can work towards developing visual skills to the highest possible level in order to supplement the child's other skills.

The programme at present is still very much in the planning stages and evolving slowly as more children are assessed and their needs become apparent. Visual learning programmes by Marianne Frostig, Natalie Barraga, Marvin Effron and Beth Reilly Du Boff to name a few, are being investigated as a basis for the programme, and at this stage it appears that there will be three main levels, each one being co-ordinated with the child's present programme:—

1. A visual stimulation programme for the younger children and those with minimal vision. Making the child aware of position of light sources for motility and orientation.
 - Bringing colours and large objects to their attention.
 - Identifying their toys, clothes and household objects,
 - Identifying their body parts and movements,
 - Introducing concepts of in-out, up-down.
2. The next stage for children over three with minimal vision and under three with useful vision e.g. gross and fine motor activities,
 - Developing an accurate perception of body awareness and movement,
 - Discrimination of colour, shape and size,
 - Understanding 'different and same' with sorting shapes and objects.
3. For children over three years with useful vision. In this group it is sometimes necessary to decide whether the child will need special schooling or whether he will be able to fit into the normal school system. It is in this group that it is hoped to use visual perception developmental tests and programmes.

The function of the orthoptist at the Child Development Unit is to determine the visual status of the children, which is quite a different matter from visual acuity, as with many of them, although their acuity is very poor, their visual ability is quite good. The decision of whether a child is capable of undertaking a low vision programme is made on a complete visual assessment which may take several visits, together with the recommendations made by the occupational therapist involved.

The children are assessed in a variety of situations, at the Child Development Unit's playgroups, at home, at kindergarten and school. In the visual assessment of the child, a number of variations are used.

A questionnaire answered by the parents or a person such as the kindergarten teacher aids in the testing. The following questions are included:

At what distance does he hold objects?
 Which eye does he hold objects closest to?
 Does he screw up his eyes trying to see?
 Does he close one eye?
 Can he recognise colour? All colours?
 Can he see a large ball (basketball size) at 1m, 2m, 3m, 6m?
 Can he recognise pictures of familiar objects e.g. house, car, dog?
 Does he turn his head to one side when observing? Which side?
 Does bright light worry him?
 Does he rub either eye often?

Observation can sometimes be misleading, but it is often useful in seeing how a child copes and can give an indication of any field defects. Ocular appearance may give information as to the type of defect e.g. microphthalmia. An abnormal head position should be noted, also non-visual habits such as smelling unfamiliar objects.

The tests for determining the visual acuity are the same as those used in a normal clinic for use with children under five, i.e. Stycar box, E cube and matching E, Catford Oliver drum, and pictures (chart and singles). The tests are often adapted and used at a closer than standard distance.

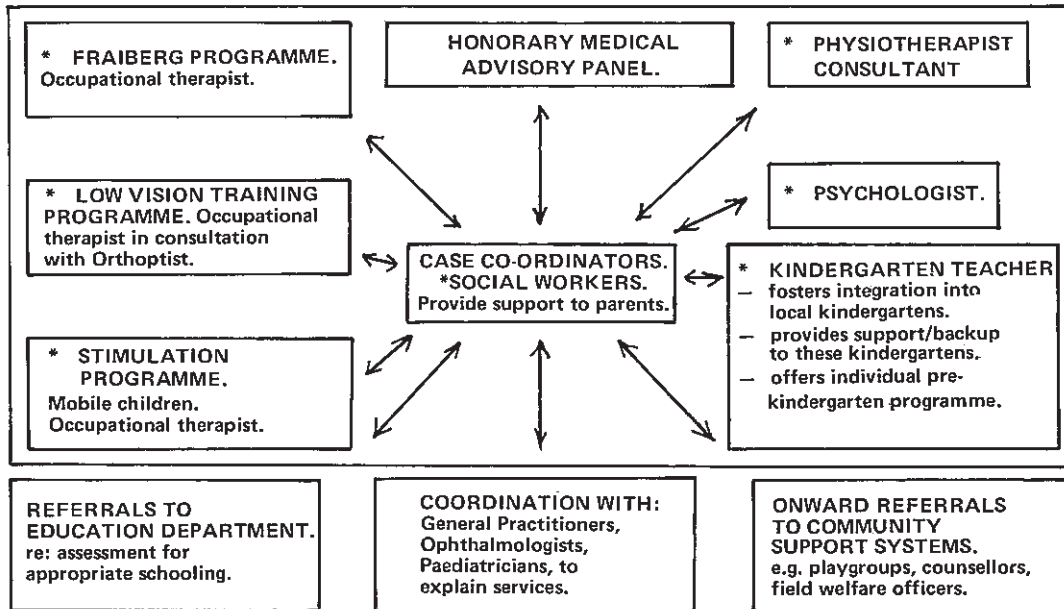
The Catford Oliver drum is used extensively, but with the frequency of pathological nystagmus, and the amount of pathology limiting the area of functional retina, this is not always accurate. Also the Stycar box, incorporating the Sheridan Gardiner balls and letter tests with 5, 7, or 9 letters, and the Stycar toys are widely used. The visual safety acuity is more often tested with both eyes open.

The visual field is approximated by observation and confrontation, with older children. Colour vision is tested with the Matsubara Colour Vision Test for Children.

Many of the children are not using binocular vision, and depending on the aetiology of the visual impairment, many of the findings on a routine orthoptic investigation may change from one visit to another. The accurate assessment of vision is of primary importance.



The ever expanding role of the orthoptist is well illustrated in the team approach to the treatment and management of the visually impaired child. The ongoing programme to enhance the child's abilities depends on the orthoptist's assessment of useful residual vision. This is challenging work in an unusual field which will bring great satisfaction to any orthoptist who may be called upon to work with these children.



KEY. * Makes regular home visits.

SCHEMATIC REPRESENTATION OF THE MULTIDISCIPLINARY CHILD DEVELOPMENT UNIT.

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