

Epilepsy and Education

Ireland is the only EC Country that has no special educational or assessment facilities for children with more serious forms of epilepsy. There is also a need for teachers to become familiar with the special learning difficulties associated with epilepsy.

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INTRODUCTION

At some time in their life, two to three per cent of people will experience epilepsy making it, apart from migraine, the most commonly known brain disorder. In Ireland it is estimated that nearly 20,000 people have some form of epilepsy. As a large proportion of people have their first seizure before the age of twenty many children of school going age are affected by the condition. Most children will have their seizures controlled by anti-convulsant medication. However, a sub-population of children with epilepsy have a drug resistant reaction or severe form of epilepsy often associated with behavioural or cognitive difficulties.

EPILEPSY AND LEARNING DIFFICULTIES

Research indicates that children with epilepsy are at a significant risk for developing learning difficulties with such problems occurring in between 5% and 50% of children with epilepsy (Thompson, 1987). Studies of children with drug resistant epilepsy indicated that 30% are in need of special education compared to normal controls (Alderkamp, 1983, 1987, 1990). Likewise between the ages of 12 and 18 only 33% of children with epilepsy were found to be in the secondary school system compared to 88% in the control group in Alderkamp's studies. This factor of a shorter period of education can lead to considerable occupational disadvantage in later life.

Young people who have experienced difficulties during their school years leave school underqualified and with poor interpersonal and vocational skills. Many

young people today are finding it difficult to find employment but the difficulties facing young people with epilepsy are more extensive and unfair and require special attention.

EPILEPSY AND SPECIAL EDUCATION

Ireland is the only country in the EC that has no special educational or assessment facilities for children with more difficult forms of epilepsy. For sometime now, parents of children with epilepsy and professionals working in the field have recognised the need for an epilepsy assessment unit with special education facilities where the medical, psychological and social needs of children could be assessed. In the UK there are four such specialist assessment and educational facilities (Cull and Brown, 1989).

The majority of children with epilepsy attend regular schools. Children with epilepsy who also have another disability attend for the most part, special schools for children with disabilities. However, it is the associated disability rather than their epilepsy which determines the special school placement. It is the group of children whose drug resistant epilepsy is their primary disability who are being inadequately catered for within the Irish educational system. The Irish Epilepsy Association has reports on children who remain at home or who are inappropriately placed in special schools.

Children with severe epilepsy e.g. the child with frequent daily seizures, need specialised multidisciplinary services. An assessment centre where the exact nature of the learning difficulties experienced by children and where their relationship to the underlying brain activity could be ascertained would be extremely important in developing suitable teaching programmes to ensure maximum educational achievement.

DIFFICULTIES EXPERIENCED BY CHILDREN WITH EPILEPSY

Besag (1987), notes the main difficulties experienced by children with epilepsy as:

(a) Frequent seizures: The occurrence of frequent seizures can lead to considerable life disruption for a child, particularly in relation to school. Many teachers find it difficult to cope with seizures and this may result in the child returning home even after a brief partial seizure, for which a short rest is adequate. This can lead to considerable loss of time in school with associated

educational difficulties.

(b) Injury due to seizure: Some types of seizure can result in injury, and it is important that appropriate medical care is available e.g. status epilepticus, where the child experiences one seizure after another without regaining consciousness.

(c) Variable Seizure Frequency: Many children with recurrent seizures experience unpredictable patterns in terms of seizure frequency. They may have a number of weeks which are seizure free followed by a cluster of seizures together. A special educational programme is required to deal with this situation.

(d) Postictal problems: Because a seizure is due to abnormal activity in the brain, behaviour and thinking ability around the time of the seizure (ictal event) can be radically altered. The most common post ictal problem is that of drowsiness. Other common features are confusional states, aggression, concentration and memory problems. These difficulties can be recognised and managed easily by trained staff, but may be regarded as disruptive behaviour by teachers or staff inexperienced in epilepsy.

(e) Anti-epileptic drugs: All children with active epilepsy require anti-convulsant medication. Some children require multiple combinations of drugs. The side effects of such drugs are well documented. Depending on individual drugs these may include drowsiness, concentration problems, behavioural difficulties, weight gain or depression (Trimble, 1990).

(f) Seizures which are difficult to recognise: Many children experience significant problems in school because of seizures that are difficult to recognise. These may range from brief absences to complex partial seizures. The latter can be difficult to recognise and diagnose and in this type of situation a child may be punished for bizarre behaviour over which he/she has no control.

EDUCATIONAL DIFFICULTIES

Children with epilepsy have been documented as experiencing the following learning difficulties (Thompson, 1987).

(a) Attentional - Concentration problems.

Such concentration deficits may result in the child of average intelligence having difficulty attending at the normal rate. A study by Bennet Levy and Stores (1984)

reported teachers as perceiving their pupils with epilepsy as having poor concentration and memory and being less alert than their peers. It is essential that such problems are recognised and compensated for.

(b) Learning and Memory Problems

Learning and memory difficulties in children with epilepsy have also been frequently referred to. Children with partial or focal epilepsy often have significant learning and memory problems depending on the side of the brain in which the epilepsy is located. Those whose epilepsy originates in the left hemisphere are more likely to have language difficulties while those whose epilepsy begins in the right hemisphere may have problems processing visual material. This is of importance educationally in that certain subjects may cause a child with focal epilepsy particular difficulty (Alderkamp et al, 1990).

(c) Perception Difficulties

Poor perception and motor function have also been reported in relation to children with epilepsy (O'Donaghue, 1985). Perception problems would cause considerable difficulty when learning to read and write. In addition research suggest that children with epilepsy are more likely to develop behaviour problems (Besag, 1987; Trimble, 1990). Contributing factors to such behaviour problems may include adverse reaction anti-convulsant medication, the child or family's reaction to the condition. However, given that such disorders occur more commonly in children with focal epilepsy, it can reflect pathological problems with the brain.

CONCLUSION AND DISCUSSION

The evidence reviewed would indicate that approximately one third of children with epilepsy are underachievers and need some kind of educational support. It is important therefore, that teachers are provided with adequate support and resources so that they can be well informed on both the medical and educational implications of childhood epilepsy. The minimum requirement is the establishment of a multidisciplinary assessment service which can develop a medical educational and psychological programme which would take into account all areas of weaknesses and strengths of an individual child. This may allow the child to continue in regular school and prevent referral to special education. Some problems, however, cannot be easily solved within the regular school system and a special educational facility may be required for a limited group of children who have particular needs. The Irish Epilepsy Association is

currently undertaking research to try to estimate the number of children with epilepsy who may require such a service. Early recognition of the difficulties facing children with epilepsy, both educationally and socially, and the development of appropriate teaching strategies to compensate for these difficulties is essential if children with epilepsy are to achieve their full educational potential.

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