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Management of epilepsy in schools

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SUMMARY Ninety two school children in south east London aged 5–15 years and with a diagnosis of epilepsy were identified from the Handicap register kept by the community child health services. Medical information was obtained from hospital discharge summaries. Information about support services for these children and their families by psychiatrists, physiotherapists, educational psychologists, educational welfare officers, and social workers was obtained from questionnaires completed by school doctors and from school medical records. There was a significant increase in the use made of these support services by epileptic children placed in special schools compared with those attending ordinary schools. This is probably due to the additional disabilities of the former (mental subnormality, cerebral palsy etc) rather than epilepsy per se, as there was no significant difference in seizure frequency between the two groups of children.

Prevalence studies[1 2] have indicated that epilepsy among school children is a considerable problem and that behavioural and educational problems are more common among epileptic children and their families.[3 4] A multidisciplinary approach to management is therefore required. We considered the different community support services for children with epilepsy in a mobile, inner city, working class population with a high incidence of single parent families.

Method

All children aged between 5 and 15 years (on 1 September 1981), who had ever been diagnosed as epileptic, and who lived or attended a school within the Camberwell Health District of London were identified from the community child health services Handicap register. Clinical details on the type of epilepsy, age of onset, seizure frequency, past and present drug treatment, and presence of other handicaps were obtained from the community health service notes and hospital notes (where available). School medical officers were asked to complete a questionnaire for each child stating the current position. Rutter's[5] children's behaviour questionnaire was completed by the class or head teacher. The estimated population of Camberwell Health District is 230 000 with 27 000 school children aged 5–15 years.

The test of significance used for statistical analysis was χ^2 with Yates's correction.

Results

The sample consisted of 92 children—52 boys and 40 girls. All had been investigated in hospital either by a paediatrician or a neurologist, and most were still being followed as outpatients. Detailed findings are listed in Table 1. The social class composition, the number of children living in single parent families, and ethnic distribution of the sample were in similar proportion to that of the population of the health district.

Over half the children had their first epileptic seizure before the age of 5 years—the statutory school age. Twenty four percent of the children surveyed had been seizure free for two years or more and were not taking anticonvulsant drugs.

Thirty eight children had one or more additional handicap—the commonest being mild mental subnormality. Over half the children (50) were attending ordinary schools. Of these only 6 had an additional handicap (two with speech defects and four with deafness). The 10 children who were placed in special schools for 'delicate' children had no handicap apart from epilepsy. Of these, 8 had been placed temporarily pending an improvement in their seizure control. All the other 32 children in special schools had at least one additional handicap.

Table 1 *Detailed findings on 92 children with epilepsy living or attending school in Camberwell Health District*

Details	*No/No for whom information available (%)*
Sex	
Boys	52/92 (57)
Girls	40/92 (43)
Age	
5—9 years	27/92 (29)
10—15 years	65/92 (71)
Social class	
I and II	6/72 (8)
III—V	55/72 (77)
Unemployed	11/72 (15)
Ethnic origin	
British/Irish	52/77 (68)
Afro-Caribbean	15/77 (20)
European	4/77 (5)
Asian	1/77 (1)
Mixed	5/77 (6)
Parents' marital status	
Married or cohabiting	71/85 (84)
Single	14/85 (16)
Seizure type	
Primary generalised	57/92 (62)
Partial (± generalised epilepsy)	29/92 (32)
Unclassified	6/92 (6)
Age at onset of epilepsy	
0—4 years	50/89 (56)
5—9 years	20/89 (23)
10–14 years	19/89 (21)
Seizure frequency	
No fits or medication in previous 2 years	21/86 (24)
No fits but on medication in previous 2 years	9/86 (11)
Less than 1 fit per month	43/86 (50)
More than 1 fit per month	13/86 (15)
No of associated handicaps	
None	54/92 (59)
One	21/92 (23)
Two	14/92 (15)
Three	3/92 (3)
Handicaps	
Cerebral palsy	10/92 (11)
Mental subnormality (mild)	16/92 (17)
Mental subnormality (severe)	12/93 (13)
Persistent speech defect	12/92 (13)
Deafness	8/92 (9)
Type of school	
Ordinary	50/92 (54)
Delicate	10/92 (11)
Educationally subnormal (mild)	9/92 (10)
Educationally subnormal (severe)	9/92 (10)
Physically handicapped	6/92 (7)
Residential	4/92 (4)
Maladjusted	3/92 (3)
Awaiting school placement	1/92 (1)

The three agencies involved in the children's care were health, education, and social services. Details of the number of children receiving additional support from these agencies are shown in Table 2. As indicated in the table there are a number of significant differences in the degree of provision of service for pupils attending ordinary and special schools. All 8 children being treated by the physiotherapist were in special schools—7 of them had

Table 2 *Support services and number of children from ordinary and special schools receiving help*

Support Services	*Ordinary school (n=48)* No (%)	*Special school (n=39)* No (%)	*Total (n=87)* No (%)
Psychiatric services	7 (15)	9 (23)	16 (18)
Speech therapy	3 (3)	8 (21)	11 (13)
Physiotherapy	0 (0)	8 (21)*	8 (9)
Psychologist	12 (25)	29 (74)*	41 (47)
Social worker	5 (10)	26 (67)*	31 (36)
Educational welfare officer	4 (8)	26 (67)*	30 (35)

*Statistically significant, P<0·01.

cerebral palsy. Only three of the 11 children receiving speech therapy attended normal schools.

Overall, one third of the families surveyed were in contact with a social worker—these included the families of all children in educationally subnormal (severe) and residential schools. There was no difference in the degree of contact with a social worker in families from different ethnic groups.

About half the children had been counselled by an educational psychologist. There was no difference in the number of children from different ethnic groups who had seen a psychologist, but there was a significant difference in the provision of services to children in different types of schools. These findings reflect, in part, the fact that assessment by an educational psychologist is a prerequisite for the transfer of a pupil from ordinary to special schooling.

A third of the families in the study had contact with the education welfare officer. An apparent social class difference in this respect (16% of families in social classes I and II and 38% in social classes III, IV, and V) just failed to reach statistical significance, but again significantly more children in special schools were known to the education welfare officers.

Thirty three children (66%) attending ordinary schools had had epileptic seizures within the previous two years. A similar proportion, 23 children (64%), attending special schools had had seizures within the previous two years.

Discussion

In this retrospective study of 92 unselected school children with epilepsy we looked at the extent of involvement of the psychologist, speech therapist, and physiotherapist from the Health Service, education psychologist and the education welfare officer from the education authorities and the social worker from the local authority. It was evident that there

was a substantial contribution from other disciplines in the management of these children.

There was no difference in the severity of the epilepsy as measured by the seizure frequency in pupils attending different types of schools. There were, however, notable differences in the provision of services to children in ordinary and special schools, with a much greater concentration in the special schools. The large number (66%) of children whose seizures were not fully controlled who were placed in ordinary schools confirms the finding of Holdsworth and Whitmore[6] that many schools have a tolerant and sympathetic approach to this problem.

Children placed in special schools differed from their counterparts in ordinary schools not in respect of their seizure patterns, but by virtue of having additional handicaps. It seemed, too, that the provision of more support services to these children was in response to their other disabilities.

The Warnock report[7] recommended that the requirements of handicapped children should not necessarily be determined by the nature of their disability or disorder, but according to their educational need. It also advised that children should, wherever possible, be educated in ordinary schools with the provision of appropriate services within that framework. These proposals are reflected in the 1981 Education Act. We hope that the information gathered in this study may be of relevance in the planning and implementation of these proposals.

We were unable to state categorically whether children with epilepsy in ordinary schools needed more support than their classmates, as we made no comparison with normal children. We should, however, like to draw attention to the fact that a substantial number (25%) of these children were referred to the educational psychologists. Furthermore, 44% of them were found to have behavioural problems on the basis of their teachers' assessments.

Holdsworth and Whitmore[8] stated in 1974 that children with epilepsy in ordinary schools were an educationally vulnerable group and added 'Epilepsy in school children still presents one of the most challenging tests of effective coordination between social, educational, psychological, and medical services'. We believe that this is still true and that with the implementation of the 1981 Education Act there is a need for a more detailed inquiry into the requirements of epileptic children, and the extent to which they are met by existing services.

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