

Occasional Survey

A chronic epidemic of hysterical blackouts in a comprehensive school

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Abstract

An epidemic of hysterical blackouts in a modern comprehensive school affected 60 teenage girls and three boys, who from September 1978 to June 1980 had a total of 447 blackouts. The chronic nature of the epidemic was unusual, and several reasons for this emerged. The visible impact of the epidemic was diluted by the large size of the school and because affected pupils used general-practitioner services and hospital departments in the neighbourhood. As a result, eight girls received inappropriate treatment for epilepsy, and this may have helped to establish the behaviour pattern within the school. In addition, a small core of eight girls with a high incidence of behaviour and family problems were repeatedly affected and may have acted as triggers for new cases. Once medical supervision was centred on one neurology outpatient clinic the epidemic gradually resolved.

Introduction

Many outbreaks of mass hysteria have been recorded.¹ Most have been short lived, with clearcut trigger and controlling factors, and half of them have occurred in schools. Attacks usually consist of faints and hyperventilation affecting groups of adolescent girls.

We describe a group of schoolgirls with hysterical blackouts, which developed into a chronic behaviour disturbance and became ingrained in the pattern of life at the school for 21 months. Eight girls were believed to be epileptic or were given anticonvulsant treatment, with serious implications for careers and employment prospects.

Methods

The school kept a medical log book recording all medical events in detail, which was used to analyse the epidemic. It provided a valuable source of information as it listed all the affected pupils, with comments and eye-witness accounts of attacks. Cases were listed in order and the number of attacks, location in school, and social and medical background were categorised in an attempt to identify a common pattern.

Several girls were already attending clinics in various hospitals in different towns; it was therefore decided that all those affected should be followed up in one neurology outpatient clinic. Regular meetings were held at the school with the staff, consultant neurologist, clinical medical officer, specialist in community medicine (child health), and educational psychologist to assess progress and to introduce a common pattern of management.

Six other co-educational comprehensive schools were asked to record any fainting episodes, including epileptic attacks, for one complete school year.

Results

THE SCHOOL

The school is a comprehensive with about 630 girls and 700 boys aged 11-16 years. The pupils move from one class to another; and no particular location, subject, or teacher could be associated with the attacks. Early in the epidemic the practice was to put affected girls together in the sick bay; but on medical advice this was stopped, and affected pupils were isolated and then returned to their class as soon as possible.

PATIENTS

During six consecutive terms 60 girls and three boys had 447 blackouts. They were divided into three groups according to the number, severity, and pattern of attacks.

Classification of affected schoolchildren

Group	I	II	III
No of girls	8	8	44
No of boys	0	0	3
Age range	13-15	13-15	12-15
No of attacks	18-69	3-15	1-2
Single parent	6	2	2
Family history illness	4	1	1
Other hospital attendance	4	4	2
"Disturbed"	7	2	2

Group 1 consisted of eight girls with frequent and severe attacks. All had severe emotional and family problems and came from single-parent homes or had close relatives with longstanding medical problems. The first girl affected started to have attacks after the death of her father. Two others, whose mothers were nurses, had been treated for epilepsy; one of these girls also had a subnormal sister and the other a sister who fainted with migraine attacks. A fourth girl lived with her father, who had attacks of vertigo, and a grandmother who was demented and had blackouts. Two girls were neighbours, and the last girl to have an attack was the cousin of the first girl affected.

Group 2 consisted of eight girls who had less severe attacks, which

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generally occurred in clusters within a single term. They often associated with girls in group 1. Family backgrounds were more stable, but five girls had significant past medical histories, including thyroid goitre (two cases), anorexia nervosa, overdose of drugs, and squint.

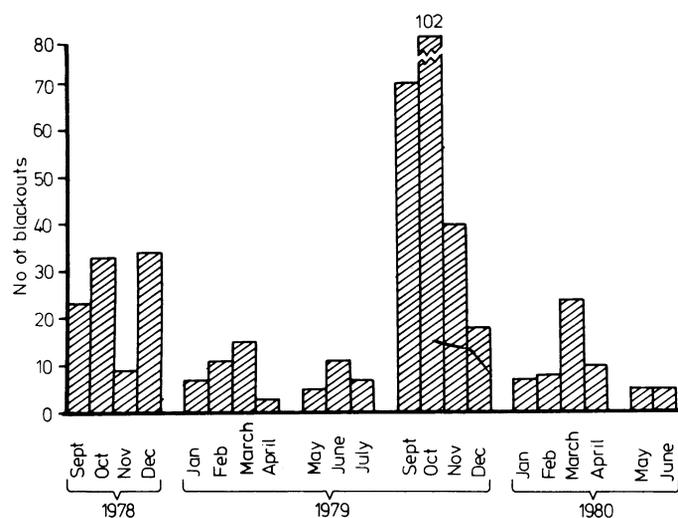
Group 3 consisted of the remaining 44 girls and three boys who had only one or two attacks each, often after one of the more severely affected children. Most seemed to be normal schoolchildren with stable homes and healthy backgrounds. One girl and her twin sister had taken an overdose and two other girls had subnormal sisters at home. Blackouts usually took the form of simple "faints" or suddenly falling asleep.

THE ATTACKS

The attacks were described as simple faints in 90%, and there was evidence of hyperventilation in the remaining 10%. Twitching of the limbs and frothing at the mouth was regularly recorded in five girls. Numerous minor symptoms, such as headaches, dizziness, paraesthesiae, and abdominal pain, were reported.

THE EPIDEMIC (figure)

The outbreak began suddenly in September 1978 when a girl developed blackouts and hyperventilation after the death of her father. By the end of the first month nine further girls became affected. The



Number of blackouts a month (spaces indicate breaks between terms).

number of attacks and new cases then fell until December, when 13 new cases occurred around the time of the school BCG vaccinations. In the first two terms of 1979 the epidemic smouldered on, some affected girls continuing to have attacks, thus acting as links for new cases.

In the autumn of 1979 eight "linkage cases" and nine new girls started to have an increasing number of blackouts, and a peak of 102 attacks was recorded in October. This disrupted the school, and medical help was requested from the school health service. As some girls already attended a local neurological clinic the consultant was contacted and took a direct part in the school. After the introduction of stricter management and outpatient attendance the situation improved, although eight new cases occurred in the spring term of 1980. Two new cases occurred in April but none were noted in May or June, and the epidemic had died out by the end of the summer term. One year later there had been no recurrence.

CONTROL SCHOOLS

A survey of eight other co-educational comprehensive schools showed the incidence of faints to be 7.1 attacks per 1000 pupils (0.6%

of the school population). In comparison the affected school had an incidence of 335.1 attacks per 1000 pupils (4.7%).

Discussion

A typical outbreak of mass hysteria lasts for a few days and affects about a third of the school.²⁻³ Most victims are adolescent girls, who are affected by hyperventilation and fainting or sometimes by abdominal pain,⁴ shaking,⁵ and itching.⁶ Epidemics are often triggered by a general fear or rumour, such as a polio scare⁷ or gas leak⁸; the exact trigger and content of the outbreak reflect the cultural setting,⁹ and some of the more bizarre epidemics occur only when there is a rapid social change.¹⁰⁻¹¹ The Eysenck Personality Inventory used to analyse two previous epidemics⁷⁻¹² showed that affected girls could be differentiated by the neurotic score (N factor); furthermore, children with behavioural abnormalities were more likely to be affected.¹³⁻¹⁴

The present epidemic differs from others in its chronicity, with new waves of victims continuing for 21 months. Sirois¹ has described a "rebound" pattern of outbreak that recurs when the affected group are reunited and goes on for a "few months." One outbreak lasted for nine months but only affected a few girls in a single class.¹⁵ The main reason for chronicity in the present outbreak was the fragmentation of medical help through many general practitioners and various hospital services, which disguised the true nature of the problem.

Eight girls were treated for epilepsy and school staff used the term "epilepsy" freely, which could have added to the emotional impact. The practice of putting girls in the sick bay resulted in an element of positive gain. Disturbed girls and those from single-parent families or living with a relative with chronic illness formed the bulk of those most severely affected.

Management of the explosive type of epidemic has been summarised as follows²: "Firm reassurance based on a positive diagnosis, without too long a delay to exclude every other conceivable cause, may be successful." A "divide-and-rule" policy also has an important part to play.¹⁶ The present epidemic illustrates some of the problems that may occur if an outbreak is not dealt with in the early stages. Co-ordination of resources, counselling of affected individuals, especially concerning the mistaken diagnosis of epilepsy, and explanation to school staff led to a gradual resolution of the problem during eight months.

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