

The school medical examination in an integrated group practice

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SCHOOL medical examinations have been a prominent feature of child health care for many years. They originated at a time when medical care was not freely available for this section of the population, and served to uncover a great deal of ill health which required treatment. More recently they have largely formed part of the process of screening children for defects which are either amenable to therapy or require subsequent supervision. In common with many other traditional methods, the school medical examination needs re-assessment in the light of current and developing patterns of the delivery of medical care.

The practice

The medical staff of the General Practice Unit of the Welsh National School of Medicine, together with health visitors and district nurses seconded from the Cardiff Local Health Authority, provide general medical services from a health centre for most of the population of a new housing estate in Cardiff. We also undertake school medical examinations on behalf of the local health authority for the primary schools which serve the estate. The records of the Unit have been designed to integrate the data accumulated by doctors, health visitors and nurses, thus bringing together the records of the general practitioner and the local health authority (Wallace and Davis, 1970). The opportunity to evaluate the school medical examination in the context of integrated community health care was consequently possible. This paper records the results of the first year of the study.

Population

During the period of the study there were two primary schools which mainly served the expanding population of a new housing estate in Cardiff. Early in 1971 all the entrants (134 children) to these two schools underwent a routine school medical examination. Ninety of these children were registered with the General Practice Unit and formed the group under study. There were 46 boys and 44 girls. The average age was five years.

Method

Each child was examined by a health visitor (S.C.) and a doctor (C.J.W.) in accordance with the routine generally accepted for school medical examinations. The school medical record card (10 M) was completed and, in addition, a record was made of any abnormalities found. Some developmental abnormalities such as knock knee, mild tonsillar enlargement and flat feet were considered to be physiological and thus omitted. Dental caries, unless very gross, was so common as to be almost a normal feature and was also not included. Subsequently, the General Practice Unit medical record of

each child was perused to see whether the abnormalities recorded at the school medical examination were already recorded.

Results

Forty-seven defects were noted at the school medical examination. These defects are shown in table I, column 1. The cases of otitis media were all of recent onset. The child with bronchitis had only been taken ill that day. In the three children with systolic murmurs the murmur was very faint and thought to be insignificant. The child with faecal incontinence had an anal fissure, and in the child with pectus excavatum the deformity was minimal. Forty-one (87 per cent) of the above defects were not noted in the General Practice Unit records (columns 2 and 3).

TABLE I
FINDINGS AT SCHOOL MEDICAL EXAMINATION OF 90 CHILDREN (AVERAGE AGE FIVE YEARS)

<i>System</i>	<i>Defect</i>	<i>Total</i>	<i>Known to general practitioner</i>	<i>Not known to general practitioner</i>	<i>Could be detected by nurse</i>	<i>What nurse would have missed</i>
Ears ..	Acute otitis media ..	4	1	3	—	4
	hearing loss ..	4	—	4	4	
Eyes ..	Poor visual acuity ..	2	—	2		
	Strabismus ..	1	1		4	
	Colour blindness ..	1	—	1		
Skin ..	Warts ..	8	1	7	8	
	Scabies ..					
	Head lice ..					
	Dry skin ..					
Chest ..	Bronchitis ..	1	0	1	0	1
Heart ..	Systolic murmurs ..	3	0	3	0	3
Enuresis ..		15	1	14	15	
Speech ..		3	1	2	3	
Psychological	Head banging ..	1	0	1	1	
	Schooltime urinary incontinence ..	1	0	1	1	
Other ..	Maldescended testes ..	11	1	2	2	1
	Faecal incontinence ..					
	Pectus excavatum ..					
Total ..		47	6	41	38	9
		100	12.8	87.2	80.9	19.1
		<i>percent</i>	<i>percent</i>	<i>percent</i>	<i>percent</i>	<i>percent</i>

It was estimated that 38 (81 per cent) of the defects could have been detected by a suitably trained nurse (column 4), and that nine of the defects (19 per cent) would require a doctor to detect the abnormality (column 5). Of these nine defects it is reasonable to suggest that the cases of otitis media and bronchitis would, in the course of the next few days, have been brought to a doctor. The heart murmurs were all grade I systolic murmurs. One was so faint that it was not discernible by another doctor. Clinically it was considered that these murmurs were not significant and that further investigation

was not justified. Thus, only one child with maldescended testes would have been missed if a nurse had conducted the school medical examination alone.

Discussion

School medical examinations are currently regarded largely as a method of screening (Henderson, 1968). One of the accepted criteria for evaluating screening procedures is that the method should give a reasonable yield. Implicit in this criteria is that what is discovered should not already be known.

Horner (1967) compared the results of the school medical examination with data obtained from a questionnaire circulated to general practitioners in Croydon. Unfortunately only 63·7 per cent of the doctors replied to the request for information. He found that 67 per cent of the defects discovered at school medical examinations were not apparently known to the general practitioner. In the present study, where the actual notes of all the children were available, 87 per cent of all the defects noted at school medical examination were apparently not known to the general practitioner, health visitor or district nurse, or at least had not been recorded.

At first sight, the school medical examination seems to be eminently justified, but we have suggested that most (81 per cent) of the defects which were discovered at the school medical examination could have been detected by a suitably trained nurse, and, further, that all except one of the defects, which we consider could only have been detected by a doctor, were acute conditions which would have been brought to a doctor in the course of a few days. It is not possible to analyse the results of Horner's study in the same way.

It should be emphasised that this study has been undertaken in rather special circumstances. The majority of the children were patients of one group practice. This practice uses a system of recording from which data can be readily retrieved and which combines the records of both the doctor and the health visitor. In such circumstances, we suggest that a school medical examination could be undertaken by a suitably trained nurse, and that examination by a doctor is not justified in terms of the yield. We appreciate that the data upon which this conclusion is based are small, but suggest that the results warrant further studies of the same nature or, even better, a suitably designed controlled trial. We also appreciate that the circumstances in which this study was undertaken do not at present exist in most parts of the United Kingdom. The rapid development of group practice and health centre practice may change this state of affairs in the near future.

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REFERENCES

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ALCOHOLICS

Alcoholics are those excessive drinkers whose dependence on alcohol has attained such a degree it shows a notable mental disturbance or interference with bodily or mental health, their interpersonal relations and their smooth social and economic functioning or who show the prodromal signs of such development (they therefore require treatment).

W.H.O. Alcohol Subcommittee—W.H.O. Technical Series, 48.