

Patterns of attendance at developmental assessment clinics

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SUMMARY. A random sample of 489 children was collected at birth. There were clinic records for only 356 (73 per cent) of these children, and from this number 30 left the district or died. The parents of those with record cards were invited to bring their children to clinic when they reached the age of four years. Only 152 children (47 per cent) attended. Of the non-attenders, 129 were traced to schools in the borough when they reached the age of five years, as were 67 (51 per cent) of the 133 children without record cards. The children seen only at school were compared with the children seen at a Local Authority developmental assessment clinic. The clinic group were judged to come from the higher social classes and to have higher IQs than the school group, which suggests that clinics may be catering for those whose need is least.

Introduction

DEVELOPMENTAL surveillance programmes for pre-school children are able to identify reliably the children with delayed development or a specific physical abnormality (Starte, 1974). Levels of visual acuity (Robertson, 1980), auditory acuity and a test of speech development (Rigby and Chesham, 1981) are established and applicable to pre-school children. Tests of motor function, hand/eye co-ordination and social/play activities are also well documented (Sheridan, 1975). Developmental surveillance may be carried out under the supervision of the community medical services or within general practice (Curtis Jenkins *et al.*, 1978; Williams, 1981), and health visitors, general prac-

tioners, community medical officers, paediatricians and trained non-medical personnel all make a contribution (Valman, 1980).

Aims

The aims of the study reported here were:

1. To evaluate an existing system for the pre-school examination of children.
2. To determine the difference, with regard to IQ and social class, between attenders and non-attenders at a Local Authority developmental assessment clinic.
3. To evaluate the effect of contacting non-attenders.

Method

Figure 1 shows how our original sample was traced and followed up. The Borough of Newcastle-under-Lyme maintains records of all live births within its boundaries. We took a 50 per cent (489) random sample of all recorded births for one year and attempted to identify these children through the records kept by health visitors at the seven Local Authority clinics within the borough. The parents of all the children for whom there were record cards and who were eligible for inclusion in the study were invited to bring their child to the Local Authority clinic within two weeks of his or her fourth birthday for medical examination and developmental assessment; this is a standard Health Authority practice. In addition to the normal invitation from the health visitors, the parents were also sent an explanatory letter concerning the additional assessments. Failure to attend for the appointment was followed by at least one visit from a health visitor.

The following year, when the children in the original sample had reached the age of five years, the co-operation of the Education Authority was obtained to trace those children who were attending school—and therefore resident in the borough—but who did not have clinic records.

Children included in the study were given several tests in addition to a developmental assessment and physical examination. These included a test of intelligence using the Wechsler pre-school and primary scale of intelligence (WPPSI). The occupation of the father was recorded and this information

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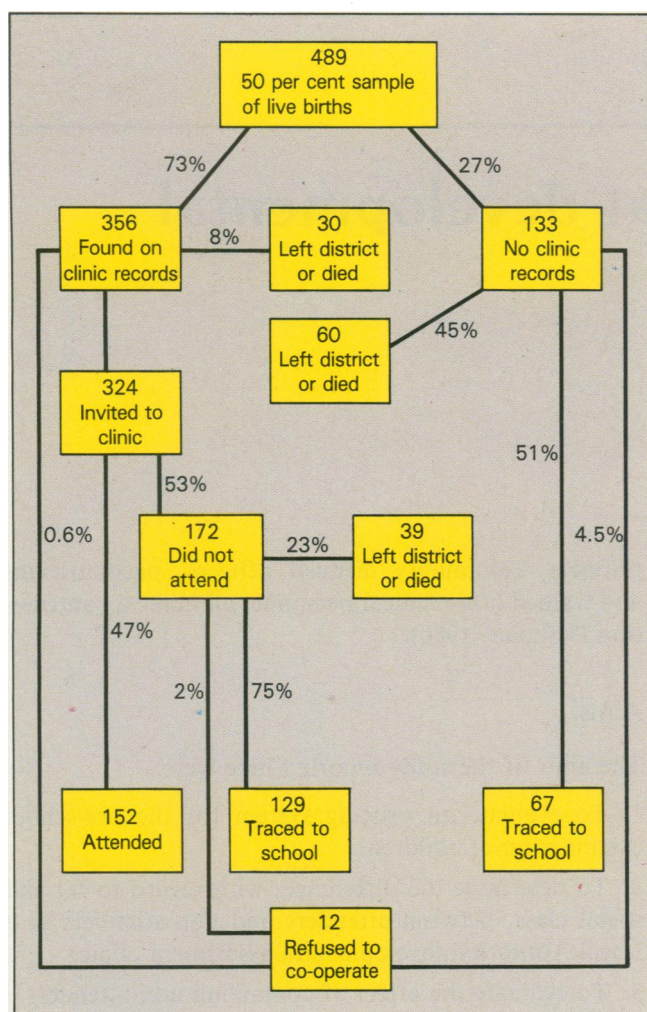


Figure 1. Method whereby the children from the original sample of 489 live births were traced and followed up.

was used to denote the social class according to the Registrar-General's classification.

Results

Figure 1 charts the breakdown of our original sample of 489 live births within the boundaries of the borough of Newcastle-under-Lyme. The local clinics only had records for 356 (73 per cent). One hundred and fifty-two of these children (47 per cent) attended clinic when they reached the age of four years. Of the four-year-old non-attenders, 129 (75 per cent) were found when they were five years old in primary schools within the borough. A further 39 (23 per cent of the non-attenders) could not be traced within the North Staffordshire District and yet the names of these children remained on health visitor records. Conversely, 67 (51 per cent) of the 133 children who did not have any health visitor records were later found to be attending schools within the area (Figure 1).

Thus 67 (14 per cent) of the original sample of 489 children were not on record at any of the clinics within the borough in which they lived, while 69 names (14 per

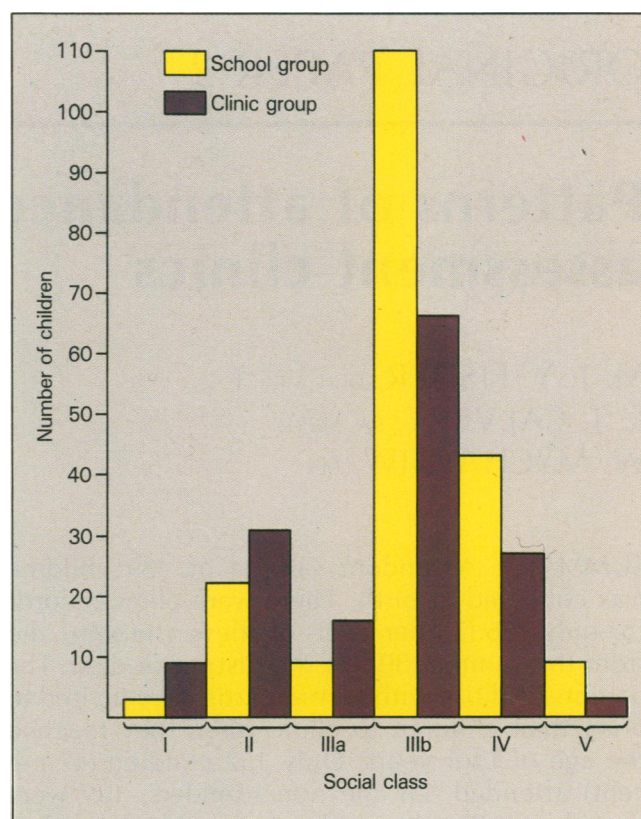


Figure 2. The distribution of the two groups of examined children in terms of social class.

cent) remained on record although these children had either died or left the district. That is to say, 136 children (27 per cent of the sample) could not be traced through the existing health visitor clinic procedures.

The children seen only at school were compared with the children seen at the Local Authority developmental assessment clinic with regard to their position within the family and the number of siblings. Despite a tendency for a slight excess of larger families containing older children in the school sample there were no significant differences in family size or position between the two groups.

Figure 2 illustrates the distribution of the two groups examined in terms of social class. A chi square test showed the differences between the groups to be highly significant (χ^2 17.01, 5 df, $P < 0.005$), with the school group having a disproportionate representation in the lower three social classes.

The Table gives the distribution in the two groups of the full scale IQ as measured by the WPPSI. The difference in mean scores was 9.3 points in favour of the clinic group and the difference is significant (analysis of variance: $N = 326$, df 1,324, $F = 56.75$, $P < 0.01$).

Discussion

One of the most useful findings was that the Local Authority developmental assessment clinics retained

Differences in IQ between school group and clinic group.

IQ Full scale	School group (N=182)		Clinic group (N=144)	
	Number of children	Percentage	Number of children	Percentage
50-59	2	1.1	0	—
60-69	1	0.5	0	—
70-79	10	5.5	4	2.8
80-89	24	13.2	13	9.0
90-99	78	42.9	28	19.4
100-109	59	32.4	46	31.9
110-119	7	3.9	41	28.5
120-129	1	0.5	10	6.9
130-139	0	—	1	0.7
140-149	0	—	1	0.7
Range	56-120		71-142	
Mean (± SD)	99.4 ± 10.19		104.7 ± 12.18	

records of large numbers of children who no longer attended because they had moved away from the area. Furthermore, the clinics had not received records for children who had moved into the area and were eligible to attend a clinic. Those who did attend came from the higher social classes and had higher IQs than those seen for the first time in school. This is disturbing, since other studies have shown that the prevalence of illness and developmental delay is higher in children from the lower social classes (DHSS, 1980). Clinics may therefore be said to be catering for those for whom the need is least.

Despite greater than normal encouragement to attend, only 31 per cent of our total sample (45 per cent of the children contacted eventually) were seen at a Local Authority developmental assessment clinic before starting school. If routine developmental surveillance as described by the Committee on Child Health Services (1976) were to be instituted, it would be essential that as near as possible to 100 per cent of the defined population should be screened.

All children traced from the original sample were registered with a general practitioner. All general practices in the borough have attached health visitors. In practices with an effective and up-to-date age-sex register, the health visitor would have access to a more reliable record system than the one available to her through her own clinic records (Maycock, 1978). In other words, children still living within the borough could have been located on first enquiry through their general practitioner's records, if the place of examination had been general practice.

Developmental surveillance programmes and the tools of assessment remain an area of debate that requires further study and research (*Lancet*, 1975; Curtis Jenkins, 1976). The Royal College of General Practitioners and the General Medical Services Committee have an active interest in preventive medicine and the

role of the general practitioner. While developmental surveillance would not have to be the sole responsibility of family doctors, they could make an important contribution by ensuring that the children under their care were seen.

The overall provision of a comprehensive paediatric health care system will develop and be evaluated only through studies in which complete data collection enables valid conclusions to be drawn.

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Stopping antihypertensive therapy

A small study has suggested that normal diastolic blood pressure may be maintained in some patients with mild hypertension for many months after stopping therapy. Unfortunately it was not possible to predict the patients for whom cessation of therapy would be successful.

Source: Levinson, P. D., Khatri, I. M. & Freis, E. D. (1982). Persistence of normal blood pressure after withdrawal of drug treatment in mild hypertension. *Archives of Internal Medicine*, 142, 2265-2268.