

## *Mental subnormality and the general practitioner*

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With the expansion of services for the mentally subnormal some of the findings of a recent survey carried out in the North-east of Scotland are relevant to general practitioners.

The objects of the survey were:

- (1) To determine the extent and distribution of subnormality in the North-east of Scotland,
- (2) To establish causes where possible,
- (3) To identify scope for prevention and amelioration,
- (4) To assist future planning and research.

The North-east of Scotland has proved a suitable area for carrying out epidemiological studies. The population has remained stable at about 500,000 people and so far little change in mobility has been recorded. The calculations for the present study are based on the 1971 Census reports when 93 per cent of the population under review were born in Scotland. Most of the hospital services are based in Aberdeen while seven separate local authorities are responsible for the education and social work services and the subnormality registers of these authorities were used in this study.

There were 3,020 individuals on the registers during the period of the survey, 1968–1970. The examination of each case included clinical details, psychological testing, obtaining blood and urine for cytogenetic, biochemical and blood-grouping analyses, with the social and family data taken from relatives and the type of care recorded. As I did this work almost entirely the consistency of the coded results should be good. The work took over four years and is considered to be one of the most extensive yet carried out. The methods adopted proved successful in that in only 4–11 per cent of the cases was investigation refused.

### **(1) Extent and distribution**

In the regional population as a whole, subnormality affected just over six per 1,000 with the numbers of the severely subnormal (i.e. intelligence quotient under 50) nearly equal to the numbers of the mildly subnormal (I.Q. over 50) and with almost as many in hospital care as in local authority care. As in other surveys an I.Q. of 50 has been taken as broadly dividing severe from mild mental handicap. Coinciding with the timing of the survey, however, changes in the distribution and management of subnormality have been taking place, largely through the Education (Scotland) Act 1946 and the Social Services (Scotland) Act 1968 and these changes are reflected in the survey data which cover all ages.

#### *(a) Identification*

It was expected that on psychological testing nearly all those on subnormality registers would have an I.Q. of less than 70, but on the comprehensive selection of tests designed and standardised by the consultant clinical psychologist and applied throughout the study, the results were that almost as many of the cases had an I.Q. of over 70 as had an I.Q. of less than 20 (previously classified as idiot).

There is, therefore, a wider range of impaired intelligence being catered for than had been anticipated.

#### *(b) Age distribution*

As it was survey policy to include all pupils admitted to special schools for retardation, it has been convenient to take the age of 35 below and above which to indicate the changes in age distribution which the responsibilities of education authorities have brought about. Many more of the cases now being identified as in need of special education are in the younger age groups and, of these, the majority are mildly subnormal and in local authority care.

Apart from school-age the severely subnormal outnumber the mildly subnormal approach-

TABLE 1  
DISTRIBUTION OF GRADE OF SUBNORMALITY

<i>Grade of subnormality</i>	<i>Total</i>	<i>Per cent of survey population</i>
Not recorded or not known	218	7·22
Mild subnormality I.Q. 50-70	1044	34·57
Severe subnormality I.Q. 20-50	974	32·26
Severe subnormality I.Q. <20	417	13·8
Not subnormal I.Q. 70+	367	12·15
Total	3020	100

TABLE 2  
AGE DISTRIBUTION BY GRADE OF SUBNORMALITY

<i>Grade of subnormality</i>	<i>Age distribution</i>		
	<i>Under 35</i>	<i>Over 35</i>	<i>Totals</i>
Severely subnormal	832	568	1391
Mildly subnormal	1157	254	1411
Not recorded	153	65	218
Total	2133	887	3020

TABLE 3  
AGE DISTRIBUTION BY TYPE OF CARE

<i>Type of care</i>	<i>Under 35</i>	<i>Over 35</i>	<i>Total</i>
Hospital	495	566	1061
Community	1547	268	1815
Not recorded	91	53	144
Total	2133	887	3020

ing a fairly consistent incidence of about four per 1,000, which is in accordance with the national average. There is no such comparable average for mild subnormality as methods of identification and management differ according to the availability and use of special educational provision. As special-school pupils leave school at 16 it was only in school-age years that more of the mildly subnormal were being recognised and helped.

The age-grouping of the survey also illustrates the changes which have been taking place on behalf of those who are older. In the past there was less choice of care available, attitudes of rejection were more common than now, the present-day financial and other forms of support for the subnormal and their families did not exist, and it was on less sophisticated psychological and clinical methods than are now in use that a diagnosis of mental handicap was made which implied, without further ado, exclusion from, or curtailment of, a place in ordinary life.

Long-term institutional care was, therefore, an accepted pattern, much of it only possible in mental deficiency hospitals outside the region or in psychiatric hospitals either within the

TABLE 4  
DISTRIBUTION BY AGE TO GRADE OF SUBNORMALITY PER 1000 POPULATION

	<i>Age groups</i>									
	0-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75+
Severely subnormal I.Q. less than 50	1.4	3.3	3.6	3.9	4.2	3.3	2.9	2.2	1.7	1.2
Mildly subnormal I.Q. over 50	.5	8.2	10.4	4.2	2.2	1.2	1.8	.9	.6	.4
Ungraded	.29	.31	.76	.75	.75	.35	.33	.33	.24	.17

North-east or elsewhere. Even now, regional hospital care for the subnormal amounts to only 1.43 per 1,000 of the population and to 22.5 per cent of the subnormal population under review. That local authority services have expanded, irrespective of the level of subnormality, is evident from the most recent additions to the survey population. Between the years 1966 and 1970, 724 new cases were added to the subnormality registers of whom 96 were aged over 35 and although nearly all were severely subnormal the majority were in the care of the community services.

TABLE 5  
TYPE OF CARE BY AGE IN RECENT ADMISSIONS

<i>Age group</i>	<i>Hospital</i>	<i>Community</i>	<i>Not recorded</i>	<i>Totals</i>
Under 35	67	543	18	628
Over 35	38	52	6	96
Totals	105	595	24	724

An increasing choice of care therefore has become possible, influencing attitudes towards subnormality.

**(2) Causes of mental handicap**

Mental subnormality was the identifying factor for the study, but is not a clinical entity and in only 9.6 per cent of the cases was a precise clinical cause established. In such cases the diagnosis, including mongolism, was nearly always made or confirmed by abnormal laboratory findings. Both the cytogenetic and the biochemical abnormalities were more often associated with severe than with mild subnormality: only the sex chromosome abnormalities were more often associated with mild subnormality.

Possible causes of subnormality included congenital morphological defects, a history of obstetric or paediatric abnormality, a few degenerative conditions, and some environmental factors. The social data which were collected included social class of father, the size of the individual's family, his position in it, the frequency of illegitimacy, and the incidence of subnormality within three generations of the family.

In the 643 cases where subnormality within the family was taken to have aetiological significance, 417 were siblings. Just as severe subnormality is more often genetically determined so is mild subnormality more often associated with adverse cultural situations and with a variety of non-specific clinical conditions including psychiatric or behaviour disorders which may be just as prevalent in the general population. For the majority, however, the aetiology of mental handicap remains obscure.

**(3) Prevention and amelioration**

The control of some of the causes of severe subnormality is now possible. The regular screening of infants has led to the identification and appropriate management of phenylketonuria; similarly, antenatal screening may aid genetic counselling when there is a high risk that a severely

TABLE 6  
AETIOLOGICAL PATTERN

	<i>Number of cases</i>	<i>Per cent of survey population</i>
A. Definite cause and effect	289	9·6
B. Possible cause and effect clinical	819	27·09
C. Possible causes and effect social	643	21·29
D. Inadequate evidence of cause	1135	37·58
E. Not examined	134	4·44
	3020	100

subnormal child may be born. With any grade of subnormality contraceptive advice may be appropriate. In collecting the data when the information was volunteered it was noted, but not coded, when a pregnancy had been terminated or when sterilisation had taken place after the birth of the last child. Where mild subnormality already existed these measures were likely to have relieved inadequate families. The mildly subnormal outnumbered the severely subnormal in the lower income social classes 4 and 5 and in classes 3, 4 and 5 when families were larger and sibship subnormality occurred.

Education is increasingly a means of minimising the effects of subnormality and is now a statutory obligation within mental subnormality hospitals, "Even the most severely handicapped child is capable of improvement given the appropriate stimuli in the right environment and at the right time." Special educational provision has also been extending for pupils whose I.Q. is above 70. Of the 367 individuals who had an I.Q. of over 70, 312 were of school age, their educational need was closely associated with environmental factors. Of all those on the survey belonging to lower income classes 3 and 4, 13 per cent had an I.Q. of over 70 and of these belonging to social class 5, 20 per cent were in this 'not subnormal' category.

As it is now recognised that an individual's I.Q. may vary with the opportunities provided and that "no intelligence test yet devised can claim to be culture-free," the special educational provision for borderline pupils need not indicate permanent handicap. This is in agreement with Kushlick (1968) who concluded that "mild subnormality, unlike severe subnormality, is a temporary incapacity related largely to educational difficulties experienced at school." "After leaving school" he observes, "the majority of these people become socially and economically independent and are indistinguishable from the rest of the community." I certainly found that beyond school-leaving age the numbers of the mildly subnormal on subnormality registers sharply decreased. Penrose (1963) has stated that "whatever may be the individual's basic capacities he is not to be considered mentally defective so long as he is socially acceptable." It is for future investigation, therefore, to establish how far mild subnormality, *per se*, does affect social acceptability and how far special schools contribute to social independence. Both as regards employment and marriage the findings of the survey suggest that the quality of stability may be of more social significance than level of I.Q.

#### *The family*

No diagnosis is more family-centred than one which implies mental handicap, so that help is needed for the family as well as for the subnormal individual. Naturally, severe subnormality presents problems of acceptance and adjustment which differ from those associated with mild subnormality but from the data collected satisfactory adjustment in all cases seemed to depend on how far the 'stigma' attached to the terms 'mental handicap' and 'mental deficiency' could be resolved.

Primitive attitudes of down-grading, guilt, and rejection still existed, prejudicial both to the individual and his family. With the increasing development of services, however, younger parents especially appeared to be better informed, more confident in their own role, acknowledging benefit not only from the financial and other statutory provision now available, but also from the support of voluntary associations and the increasing publicity given to their problems.

Whatever the degree of subnormality, it seemed easier for families to accept a firm clinical diagnosis, i.e. of mongolism, cerebral palsy, psychiatric disorder, or even one of poor educational

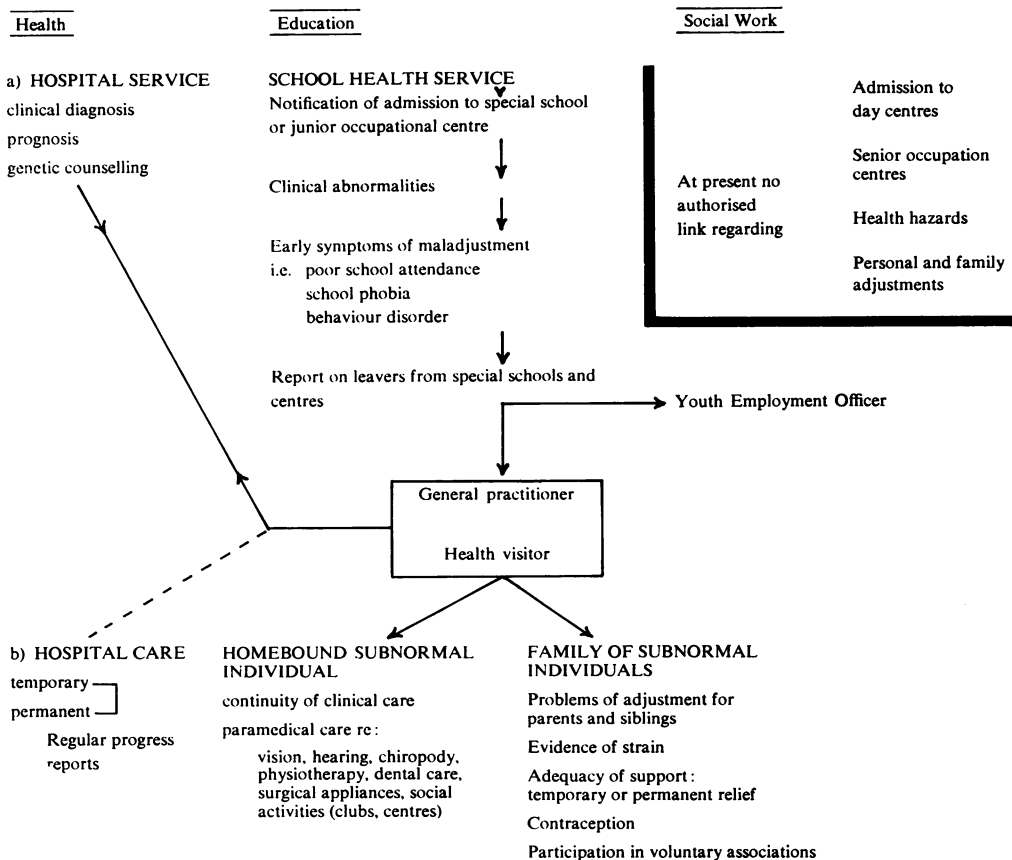
potential than one of 'mental deficiency' and equally desirable was an early and accurate prognosis as far as this was possible.

A continuously better informed public is aware that prediction relies not only on basic clinical diagnosis but on what can be done about it. For children continuing developmental assessment will be expected, the eventual potential depending not only on maturation but on what opportunities can be offered to promote its full extent. In cases of severe handicap, family anxiety regarding possible genetic implications for others appeared to remain uppermost in mind whatever the age of the handicapped individual.

**Services for the mentally subnormal**

The health, education, and social services exist for all, irrespective of levels of intelligence, but only for the subnormal are all three types of service likely to be required at some time or other in greater or lesser degree and for a longer or shorter period depending on whether the incapacity is of temporary or life-long duration.

Increasingly, doctors are members of a team, partners with other professional workers, not necessarily the major partners but for subnormality, as for other conditions, the general practitioner remains the co-ordinator for families. Granted communication between the services, general practitioners are enabled to record diagnosis, continuity of progress, and the means whereby needs are being met, shared, or delegated. Regarding communication, however, the general practitioner may lack progress reports on hospital patients or information about a diagnosis established after the patient's admission to hospital, i.e. of epiloia or phenylketonuria



**Figure 1**  
**Services for the mentally subnormal**

and as yet there is no authorised link with social work departments on behalf of patients as exists with special education through the school health service.

TABLE 7  
TYPE OF CARE BY GRADE OF SUBNORMALITY

	<i>Hospital</i>	<i>Community</i>	<i>Not recorded</i>	<i>Totals</i>
A. Severe subnormality				
I.Q. <20	294	123		417
I.Q. 20-50	443	531		974
B. Mild subnormality				
I.Q. 50-70	266	770	8	1044
I.Q. 70+	42	324	1	367
C. Ungraded	16	67	135	218
Total	1061	1815	144	3020

TABLE 8  
DEGREE OF DEPENDENCE ON OTHERS/ HOSPITAL TO COMMUNITY CARE BY AGE

	<i>Night wetting frequent</i>	<i>Night soiling frequent</i>	<i>Day wetting frequent</i>	<i>Day soiling frequent</i>	<i>Walks with help not at all</i>
A. Aged under 35					
Hospital	66	65	63	62	48
Community	171	70	88	76	54
Total	237	135	151	138	102
B. Aged over 35					
Hospital	32	23	28	25	26
Community	7	4	6	3	10
Total	39	27	34	28	36
	<i>Walks by himself not at all</i>	<i>Feeds himself not at all</i>	<i>Washes himself not at all</i>	<i>Dresses himself not at all</i>	<i>Totals</i>
A. Aged under 35					
Hospital	53	48	93	95	593
Community	77	59	126	123	844
Total	130	107	219	218	1437
B. Aged over 35					
Hospital	49	18	49	48	298
Community	14	7	18	16	85
Total	63	25	67	64	383

#### Factors affecting choice of care

(a) *Degree of subnormality*

As expected, most of the severely retarded are in hospital, but only when the I.Q. is less than 20.

(b) *Dependence on others*

There were 1,820 instances of an extreme degree of dependence on others for continence,

mobility, and self-help; i.e. a single instance included either frequent wetting or soiling by day or by night, an inability to walk either with or without help, or an incapability to either wash, feed or dress himself. If, with one or more of these disabilities the individual was aged under 35 he tended to remain in the community with the position reversed if he was aged over 35.

(c) *Diagnosis*

(i) *Mongolism.* Mongolism accounts for 8·81 per cent of the survey population with 0·56 per 1,000 of the regional population affected. It is the older mongol who is more often in hospital and also the mongol whose grade of subnormality is less than 20. Only 0·13 per 1,000 of the regional population were occupying mental deficiency hospital beds in the region on account of mongolism. The educability of mongols is increasingly recognised, the educable mongol being usually ready for special educational provision at the normal age for school entry.

(ii) *Cerebral palsy.* Of the 268 cases studied, the majority remained at home although the greater number were severely subnormal. Only the diplegics were more often in residential care: partial immobility, especially if associated with speech difficulty and frustrated behaviour may have made home care less easy than when, as in quadriplegia, the patient was totally physically dependent on others. That more of the severely subnormal cases of cerebral palsy, even if associated with grand mal epilepsy, remained at home may have been because opportunities for physiotherapy, speech therapy, hydrotherapy, or social activities were available locally.

(iii) *Epilepsy.* On the other hand, hospital care was more often required for the 564 cases of epilepsy, the majority of whom suffered from major epilepsy and were severely subnormal.

(iv) *Psychoneurosis and personality disorder.* Most were mildly subnormal and yet the majority were in hospital care. Indeed, cases associated with psychiatric disturbance amounted to one quarter of all the mildly subnormal hospital in-patients.

(v) *Availability of home care.* As expected, parental care was not so often available for the older subnormal individual. It cannot be estimated from the survey findings, however, to what extent the absence of, or the unsuitability of, home care determined admission to hospital, especially of the mildly subnormal. Of the 20 in-patients in regional mental subnormality hospitals who had an I.Q. of 70 or over a disturbed home background was recorded in 18 instances and although only four of these cases were aged over 35 years, six had already been in-patients for over five years.

Granted the availability of services, therefore, it would appear from the survey data that what now determines the acceptable type of care for the subnormal individual is not so much the level of his intelligence or the extent of his physical disability, but his own age, that of relatives, whether or not he has a suitable home and whether or not his poorly controlled epilepsy or disturbing behaviour can be tolerated outside hospital. Appropriate care for some borderline cases may still not be available.

#### (4) Future planning and research

For future research the data-bank which the study has built up has been of sufficient size and variety to suggest further investigation into:

- (a) what is of primary i.e. genetic origin,
- (b) what is secondary to either clinical pathology or to environmental situation,
- (c) what contributes to social integration. As regards the co-ordination of services the experience in the North-east of Scotland suggests that it is to general practitioners that families will turn for all-round awareness of their problems and assistance.

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