

# A RETROSPECTIVE STUDY OF THE PROFILE OF ESN CHILDREN SEEN AT THE CHILD PSYCHIATRIC CLINIC

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## ABSTRACT

A retrospective study of 50 cases of educationally subnormal children seen at the Child Psychiatric Clinic was done. Almost half of the referrals were initiated by schools, the majority being picked up at Primary 1. Forty-six percent of fathers and sixty percent of mothers had no more than primary education. Eighty-two percent of fathers had unskilled or semi-skilled jobs. Besides being below average in academic performance in school, these children also showed some behavioural problems like restlessness, disobedience, bullying, quarrelling or fighting with other children. They tended to be solitary, unresponsive, inert or apathetic, and were not much liked by others. Although all the children were referred and registered for special education, only half the number of parents accepted the offer for their children.

**Keyword:** educationally subnormal children

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## INTRODUCTION

Mental retardation is a life-long disability. As such it may impose heavy and exhaustive demands on the family, the community, and the medical care system. In a society where the educational system emphasizes on intellectual functioning, the school is an important source of referral for the psychological assessment of children who are physically normal but academically deficient. This retrospective study of 50 children seen at the Child Psychiatric Clinic attempts to describe the profile of the educationally subnormal children.

## METHODS AND MATERIALS

Children seen at the Child Psychiatric Clinic in 1985 and 1986 were considered. They were referred for various reasons e.g. behavioural problems, poor concentration, lack of interest in school, etc. They were seen by the psychiatrists, psychologists, medical officers, or medical social workers. Psychological assessments were conducted by the psychologists using the Wechsler Intelligence Scale for Children-Revised (WISC-R), the Wechsler Preschool and Primary Scale of Intelligence (WPPSI), Neales Analysis of Reading Ability, and other attainment tests.

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## RESULTS

These are presented under 3 main categories — personal, family and school.

### A) PERSONAL DATA

#### Sources of referrals

Table 1 shows that almost half of the referrals were initiated by the schools. It was probably the stress on academic performance that distinguished these children from the rest.

#### Sex, Age and Ethnic Groups

60% (n = 30) were boys and 40% (n = 20) girls. Table 2 shows that about two-thirds were aged 6-7 years. Only three children (6%) were referred after 10 years old. Forty-two (84%) children were Chinese, the rest were Malays.

#### Educational Level

50% (n = 25) of the children were picked up at Primary 1. The number of cases became less in the upper primary. Interestingly, 12% (n = 6) were referred even whilst they were still in kindergarten.

#### IQ Score

The modal individual IQ score was IQ 68, the modal range was IQ 65 to 70. Although 50% (n = 25) of children had performance IQ score of more than 5 points higher than the verbal IQ score, and 14% (n = 7) had verbal IQ score of more than 5 points higher than performance IQ score, the difference between the performance and verbal IQ scores was not significant.

#### Pregnancy/Birth Complications

As many as 44% (n = 22) of the cases had a perinatal history of note. Eight children had a history of neonatal jaundice that required phototherapy, three were twin pregnancies, three with low birth weight, and another three with hypertension in their mothers during the pregnancies. The rest included cases with birth asphyxia and caesarean births because of fetopelvic disproportion or slow progress in labour.

Table 1.  
DISTRIBUTION OF CASE BY SOURCE OF REFERRAL

Source of Referral	Number	Percentage
Governmental Outpatient Clinic	8	16
Governmental Hospital	3	6
School	23	46
School Health Service	11	22
General Practitioner	2	4
Others	3	6
Total	50	100

Table 2.  
DISTRIBUTION OF CASE BY AGE (IN COMPLETED YEARS) AND SEX

Age (Years)	Number		Total Percentage
	Male	Female	
5	3	1	8
6	11	7	36
7	9	4	26
8	4	2	12
9	2	3	10
10	1	0	2
11	0	3	6
Total	30	20	100

Table 3.  
DISTRIBUTION OF CASE BY EDUCATIONAL LEVEL

Educational Level	Number	Percentage
Kindergarten 1	1	2
Kindergarten 2	5	10
Primary 1	25	50
Primary 2	9	18
Primary 3	6	12
Primary 4	0	0
Primary 5	1	2
Primary 6	3	6
Total	50	100

Table 4.  
DISTRIBUTION OF CASE BY IQ SCORE

IQ Range	Number	Percentage
50 - 54	12	24
55 - 59	13	26
60 - 64	3	6
65 - 70	22	44
Total	50	100

#### Developmental Motor Milestone

The majority of cases (62%, n = 31) were described by the parents to have had normal developmental motor milestones, 28% (n = 14) were delayed, and the rest (10%, n=5) were uncertain.

Table 5.  
DISTRIBUTION OF CASE BY FATHER'S EDUCATIONAL LEVEL

Educational Level	Number	Percentage
Nil	5	10
Primary	18	36
Secondary	19	38
Tertiary	1	2
Unknown	7	14
Total	50	100

Table 6.  
DISTRIBUTION OF CASE BY MOTHER'S EDUCATIONAL LEVEL

Educational Level	Number	Percentage
Nil	6	12
Primary	24	48
Secondary	14	28
Tertiary	0	0
Unknown	6	12
Total	50	100

Table 7.  
DISTRIBUTION OF CASE BY FATHER'S OCCUPATION

* Occupational Class	Number	Percentage
Professional & Technical workers	1	2
Administration & Managerial workers	5	10
Clerical & Related workers	1	2
Sales workers	5	10
Service workers	10	20
Agricultural workers, fishermen	1	2
Production workers, Transport operators & labourers	24	48
Unknown	3	6
Total	50	100

\*Singapore Standard Occupational Classification and Dictionary 1973, Volume 1: Classification, National Statistical Commission Singapore.

#### Physical/Psychiatric Illness

16% (n = 8) had concurrent physical or psychiatric illnesses at the time of consultation. These included microcephaly, hearing defect, asthma, obesity, hyperkinetic syndrome, conduct disorder, and primary enuresis.

#### B) FAMILY DATA

46% (= 23) of fathers and 60% (n = 30) of mothers had no more than primary education (Tables 5 and 6). 20% (n = 10) of children had fathers who were Service Workers (e.g. cooks, public health cleaners, barbers) and 48% (n = 24) of children had fathers working as Production Workers, Transport Equipment Operators and Labourers (e.g. bakers, tailors, shoemakers, carpenters, machinery fitters, plumbers, labourers). Their generally low educational levels may explain why they belonged to these two occupational classes.

Table 8.  
BEHAVIOURAL ADJUSTMENT IN SCHOOL DURING  
THE PAST 3 MONTHS

Statements	No. of cases (percentage)		
	Doesn't Apply	Applies Somewhat	Certainly Applies
1. Very restless, has difficulty staying seated for long.	15 (30)	11 (22)	24 (48)
5. Frequently fights or is extremely quarrelsome with other children.	27 (54)	17 (34)	6 (12)
6. Not much liked by other children.	16 (32)	20 (40)	14 (28)
8. Tends to be on own — rather solitary.	13 (26)	19 (38)	18 (36)
15. Is often obedient.	23 (46)	19 (38)	7 (14)
17. Fearful or afraid of new things or new situation.	29 (58)	14 (28)	7 (14)
21. Unresponsive, inert or apathetic	9 (18)	21 (42)	20 (40)

### C) SCHOOL DATA

Understandably, 94% (n = 47) of children were rated by teachers as having below average performance academically. Three children (two girls and one boy) who were probably over-achievers for their intellectual capabilities, were rated as average in their academic performance.

In about one-quarter of cases (n = 12) the teachers rated them as putting his/her best effort in their school work. Five were girls and seven were boys.

The teachers were asked whether the child was performing up to his/her age level in the following areas: recall and recognise alphabets and numbers, reading, proficiency in usage of school language and second language, simple mathematical concepts like addition and subtraction, handwriting, spelling, concentration and attention, and carrying out instructions. At least 70% of children had problems with any of the above and more than 90% had problems with reading, language, concentration and attention.

Next a profile on the behavioural adjustment in school during the past three months was obtained using the Teacher's Rating Scale devised by Michael Rutter.

From Table 8, it can be seen that a substantial proportion of the children presented with some behavioural problems like being described as very restless, fought or were quarrelsome with other children, somewhat disobedient, and bullied other children. They tended to be solitary, unresponsive, inert or apathetic, and were not much liked by others. However, they hardly absented themselves from school for trivial reasons.

### OUTCOME

Although all the children were referred and registered for special education with the Association for Educationally Subnormal, only half the number of the parents accepted the offer for their children. The waiting period from the time of registration till the transfer to the ESN school ranged from as short as 2 months to as long as 21 months, with a mean of 5.38 months and a mode of 2 months.

About one quarter (n = 12) of cases received private tuition at home and 30% (n = 15) had remedial education in their normal schools.

### DISCUSSION

The term 'Educationally Subnormal' (ESN) is an often misunderstood one. To many people, an ESN child is the same as a 'slow learner' and it implies that given time and special educational help the child may catch up with his peers. There is always the hope that one day the child may return to normal school. While it is true that a few, especially those who had experienced deprivation earlier in childhood, may subsequently catch up with their peers intellectually, the majority does not.

An ESN child is usually taken to mean one with limited intelligence (IQ between 50 and 70), also referred to as Mild Mental Retardation. An IQ level of 70 was chosen because most children with IQs below 70 require special services, particularly during the school-age years.

The mildly retarded accounts for about four-fifths of mentally retarded in the general population. Their physical appearance is usually unremarkable and they may not be identified during preschool years until the start of schooling (Kirk 1952, Paul F M 1981) [1, 2]. Their social capacity and interactional ability may be considered adequate. Given appropriate training they are educable and can acquire social and vocational skills adequate for minimum self-support.

Our study shows that 62% were evident by Primary 1 whilst 92% (n = 46) by Primary 3 when streaming takes place. Interestingly 8% (n = 4) of the children managed up to Primary 5 or 6 inspite of their deficiency. They were probably over-achievers during the lower primary educational levels.

In a study of the causes of mental retardation in Singapore, Paul F M (1981) [3] found a significant proportion (41.8%) had non-specific causes. These were mainly those with mild mental retardation. It is in this group that social factors are probably as important as biological factors in its aetiology (Birch et al 1970) [4]. In our study 44% (n = 22) of the cases had a significant perinatal history of note e.g. neonatal jaundice, low birth weight, twins pregnancies, or hypertension in their mothers during pregnancy. However, the number of cases were not substantial enough to infer any specific aetiology.

Several studies have demonstrated substantial correlations between parental socio-economic class and both the IQ and scholastic attainment of their children. At all ages, middle-class children had higher intelligence and attainment scores than did those whose parents belonged to the lower social class. Furthermore, several studies (Stein & Susser 1960; Birch et al 1970; Rutter, Tizard & Whitmore 1970) [5,4,6] had clearly shown that mild mental retardation occurred mainly in children whose fathers had an unskilled or semi-skilled manual job. Our study shows that 82% (n = 41) of fathers of ESN children had unskilled or semi-skilled jobs. 46% (n = 23) of fathers and 60% (n = 30) of mothers did not attain beyond primary level education. Their generally low educational levels explain why they belonged to the less skilled occupational groups.

Although it has long been recognised that mentally retarded children have a high rate of psychiatric disorders, most studies done previously were of institutionalized populations and included individuals of various ages. Rutter et al (1970) [6] and Richardson et al (1979) [7] conducted epidemiological studies and found higher rates of emotional, antisocial and developmental disorders even in the mildly retarded group compared to the general population.

Neurotic disorders are common amongst the less severely retarded when they are facing changes in the routine of their lives. Our study shows that these children were rather unpopular in schools. They were restless, quarrelsome, or disobedient. They also tended to be solitary, unresponsive or apathetic.

Finally, parents of ESN children may have difficulty

accepting their children's limitation. Majority of them believe that they will improve with time. This may explain why the number of parents accepting the offer of a place in a special school for ESN children were generally low in our study. They would prefer private tuition or remedial teaching in the normal school.

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#### REFERENCES

1. Kirk S A: Experiments in the early training of the mentally retarded. *Amer J Ment Def* 1952; 56: 692-700.
2. Paul F M: A Survey of Mental Subnormality in Singapore Children M.D. Thesis, University of Singapore 1971.
3. Paul F M: Prevention of Mental Subnormality in Singapore Children, *Sing Med J* 1981; 22:3, 124-39.
4. Birch H G et al: Mental Subnormality in the Community, a Clinical and Epidemiological Study. Williams and Wilkins, Baltimore 1970.
5. Stein Z, Susser M: Families of dull children, *J Ment Sci* 1960; 106: 1296-319.
6. Rutter M, Tizard J, Whitmore K: Education, Health and Behaviour. Longman Group Ltd. 1970.
7. Richardson S A, Katz M, Koller H: Some Characteristics of Mentally Retarded Young Adults in a British City. A Basis for Estimating Some Service Needs. *J Ment Def Res* 1979; 23: 275-86.