

enuresis, at least nocturnal when combined with diurnal enuresis, may become manifest as a result of unfavourable environmental influences disturbing the emotional security of the child; in particular the mother-child relationship is probably involved. Conversely, in a favourable environment the manifestation of the postulated "genetically determined" enuresis may be suppressed.

The importance of mother-deprivation has been emphasised previously by other authors, but has not been studied with adequate statistical methods on representative samples.

CHAPTER 14

Similarity of symptoms within families

It appears from the preceding analyses that there is a large quantitative and qualitative variation in the manifestation of enuresis. As regards the age at cessation, it can be looked upon as a graded character. In genetically determined diseases, it is of the greatest interest to investigate the variability of symptoms within the families. A valuable gauge of this variability is the age at onset—cp. inter alia Haldane (1941), Sjögren (1943). In the case of failure of bladder control that has in the majority of cases lasted continuously since birth, such an analysis is not possible. An analysis of the age at cessation can, however, be made.

The analysis has to be restricted to the group with primary nocturnal enuresis (v. Chapter 7 D).

The majority of the affected children were still wetting at the time of disappearance from observation. Moreover, the estimated age at cessation of wetting among individuals, who at the time of the present investigation had been dry for a long period, is not quite exact. This is true particularly with regard to the parents and to those siblings who attained bladder control at an early age. For the reasons given above, the data cannot be used for a reliable determination of regressions.

The analysis was restricted to the following procedures: (1). To determine whether there is a tendency for propositi to cease wetting at the same age as their siblings, when the cases are divided into those who ceased wetting between 4—11 years and 12 years or later (cp. Table 48). (2). To analyse statistically the distribution, according to age at cessation, of propositi and siblings among different parental matings, also grouped according to age at cessation (cp. Table 49).

Table 48

Age at cessation of primary nocturnal enuresis: relationship between propositus and siblings

Propositus	Age at cessation (years) among siblings		
	4—11	12 and over	Total
4—11.....	4	1	5
12 and over.....	11	10	21
Total	15	11	26

Table 49

Age at cessation of primary nocturnal enuresis among propositi and siblings in different parental matings

Parental mating	Age at cessation among children							
	4—6 years		7—11 years		12 years and later		Total	
	Propos-itus	Sibling	Propos-itus	Sibling	Propos-itus	Sibling	Propos-itus	Sibling
A × A.....	9	8	11	2	45	6	65	16
A × B.....	4	1	11	4	23	1	38	6
A × C.....	—	3	2	1	12	4	14	8
B × B.....	1	—	—	—	—	4	1	4
B × C.....	—	1	—	1	3	—	3	2
C × C.....	—	—	—	—	1	1	1	1
Total	14	13	24	8	84	16	122	37
A = age at cessation of night-wetting less than 4 years.								
B = " " " " " " " " 4—11 years.								
C = " " " " " " " " 12 years and later.								

In this analysis, 3 mating groups were used, viz. A × A, A × B, and others, where A stands for less than 4 years and B for 4—11 years (cp. Table 49). The children were grouped as in (1).

Owing to the inadequate evidence in the parental group, as to whether the enuresis was primary or acquired, both these types were included.

The proportion of males to females among the siblings is approximately equal in the two propositus groups to be compared. Therefore, and since the number of subjects is small, the two sexes were treated as one group in the analyses.

No significant difference was found between the observed distribution of age at cessation amongst siblings and propositi, and the distribution which would be expected if no relationship existed. The number of subjects, however, is small, and as appears in Table 48, 4 out of the 5 siblings who had ceased to wet before the age of 12 were siblings of propositi who were dry by the same age. Nor were any significant differences observed from the random in the distribu-

tion according to age at cessation among siblings or propositi in the different parental matings. However, in this instance also there is a similar tendency.

The ratio of siblings still wetting after the age of 4 to those who had ceased to wet at that age, i.e. the morbidity rate for nocturnal enuresis, is analysed according to different parental matings in Chapter 17 B.

In addition, the similarity between propositi and siblings in the clinical picture of enuresis, and in the occurrence of encopresis and heavy sleep, was examined by comparing the actual distribution among propositi and siblings with that which would be expected on the assumption that no relationship existed (cp. Tables 50—55).

Table 50
Nocturnal and/or diurnal enuresis: relationship between propositus and siblings

Propositus	Sibling		
	Ne	Ne + de and de	Total
Ne	28	9	37
Ne + de and de	22	9	31
Total	50	18	68

Table 51
Primary and acquired enuresis: relationship between propositus and siblings

Propositus	Sibling		
	Primary	Acquired	Total
Primary	54	9	63
Acquired	3	1	4
Total	57	10	67

Table 52
Frequency of night-wetting: relationship between propositus and siblings

Propositus	Sibling			
	More than once a night	Once a night	Less than once a night	Total
More than once a night	11	12	5	28
Once a night or less	4	18	13	35
Total	15	30	18	63

Table 53
Diurnal frequency of micturition and urgency: relationship between propositus and enuretic siblings

Propositus	Sibling		
	Diurnal frequency and/or urgency	Others	Total
Diurnal frequency and/or urgency.....	9	22	31
Others.....	15	22	37
Total	24	44	68

Table 54
Encopresis: relationship between propositus and enuretic siblings

Propositus	Sibling		
	Encopresis	Others	Total
Encopresis.....	4	6	10
Others.....	9	49	58
Total	13	55	68

Table 55
Heavy sleep: relationship between propositus and enuretic siblings

Propositus	Sibling		
	Heavy sleep	Others	Total
Heavy sleep.....	12	20	32
Others.....	7	26	33
Total	19	46	65

The number of subjects is comparatively small. Therefore, in the analyses of enuresis as *ne*, *ne + de* or *de*, and of the frequency of wetting, only a rough grouping of the cases was possible, as appears in Tables 50 and 52.

There were no significant deviations from the distributions which would be expected if no relationship existed. There is, however, a tendency for the siblings of propositi wetting more frequently, to wet more often themselves ($0.01 < p < 0.05$). It is thus possible that a larger series might reveal a significant deviation from random distribution.

Summary. The analysis has failed to reveal any significant difference in the clinical picture of enuresis, and in encopresis and heavy sleep, between the observed distribution within families and that which would be expected on the assumption that no similarity within families existed.