Social background and diagnosis *Survey of male clinic registrations*

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A survey of male registrations in the Hull venereal disease clinic during the period January 1, 1970 to December 31, 1972, focused mainly on the differential distribution of diagnoses in various social categories. The aim of this survey was to explore the significance of various demographic and social factors in the epidemiology of sexually transmitted disease in the north Humberside region, and to contribute to the general body of evidence available for comparative and predictive purposes.

The survey was based on data recorded in the Hull clinic for sexually transmitted disease where, it is estimated, some 80 per cent. of infections treated in this area are recorded (Heywood and Bacon, 1973). United Kingdom residents only were included in the survey: data relating to foreign seamen and other short-stay visitors from abroad were not recorded. Also excluded were infant registrations and cases in which a sexually acquired infection was not suspected.

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FIGURE *Age distribution of 3,045 male registrations examined 1970-72*

Methods

The findings reported below relate to the total number of male registrations (3,045) in the relevant categories in the 3 years 1970, 1971, and 1972. The age, marital status, and occupational background of patients were recorded, together with data relating to suspected source of infection and previous clinic attendances. Diagnoses were recorded when confirmed. To facilitate statistical analysis all data were coded for computer processing, and calculations were made with the aid of an ICL 1905 E digital computer in the University of Hull Centre for Computer Studies.

Five categories of diagnosis were coded (see Table III). 'Other condition(s)' refers to cases requiring treatment in the clinic. Cases requiring psychotherapy only, and all conditions not requiring treatment in the clinic, are included in the 'nil' category.

Results and comment

AGE DISTRIBUTION

The main features of the age distribution of the total number of registrations (Figure) are a sharp increase in numbers in the late teens, a peak at age 20-24, and a rapid decline in the mid-twenties. This distribution is probably similar in outline to the national age distribution of clinic registrations, although the full shape of the national distribution cannot be determined since the official returns do not distinguish separate age groups among those aged 25 and over.

The marked falling-off in attendances above age 24 is presumably due to the high marriage rate among bachelors in their mid-twenties, although the figures presented in Table I suggest that the influence of marriage is variable. The numbers of registrations in successive age-cohorts remain almost constant through ages 20-24, despite a steady decline in bachelor registrations. This decline is matched, up to age 24, by a corresponding increase in registrations of married and formerly married patients. The number of registrations of separated/divorced patients in the younger age groups is noteworthy.

TABLE I *Distribution of registrations by marital status among patients aged 18-26 yrs*

Age (yrs)	Marital status				
	Single	Married	Separated or divorced	Widowed	All statuses
18	151	6	2	—	159
19	182	10	3	—	195
20	204	16	3	—	223
21	185	22	5	—	212
22	179	33	14	—	226
23	156	50	21	—	227
24	142	57	23	—	222
25	97	43	15	1	156
26	59	42	17	—	118

AGE AND MARITAL STATUS

The distribution of registrations by marital status within each age group is shown in Table II. Precise data on the distribution of corresponding marital status among the local population are not available. Nevertheless, it appears that, in general, and certainly between the ages of 20 and 50 years, the proportion of registrations in the 'married' category (*i.e.* among those whose marriages are apparently stable) is lower than would be expected on purely demographic grounds.

DIAGNOSES

Table III shows the distribution of diagnoses in each year of the survey period, and the overall distribution. 'Nil' diagnoses accounted for over 37 per cent. of the total. The number of NGU diagnoses increased in each successive year, and the overall incidence of this diagnosis was above that of gonorrhoea. The number of cases of syphilis was small, amounting to just over 1.0 per cent. of registrations.

TABLE II *Distribution of registrations by age and marital status*

Age (yrs)		Marital status				
		Single	Married	Separated or divorced	Widowed	All statuses
<20	No.	470	16	5	0	491
	Per cent.	95.7	3.3	1.0	0.0	100
20-24	No.	866	178	66	0	1,110
	Per cent.	78.0	16.0	6.0	0.0	100
25-29	No.	278	205	80	1	564
	Per cent.	49.3	36.3	14.2	0.2	100
30-39	No.	154	310	79	4	547
	Per cent.	28.2	56.7	14.4	0.7	100
40-49	No.	46	126	29	9	210
	Per cent.	21.9	60.0	13.8	4.3	100
50+	No.	12	86	16	9	123
	Per cent.	9.8	69.9	13.0	7.3	100
Total	No.	1,826	921	275	23	3,045
	Per cent.	60.0	30.2	9.0	0.8	100

TABLE III *Distribution of diagnoses by year, 1970-72*

Year		Diagnosis				
		Syphilis	Gonorrhoea	NGU	Other condition(s)	Nil
1970	No.	23	209	215	181	362
	Per cent.	2.3	21.1	21.7	18.3	36.6
1971	No.	10	259	233	178	442
	Per cent.	0.9	23.1	20.8	15.9	39.4
1972	No.	7	234	287	129	373
	Per cent.	0.7	22.7	27.9	12.5	36.2
Total	No.	40	702	735	488	1,177
	Per cent.	1.3	22.3	23.4	15.5	37.5

AGE AND DIAGNOSIS

Table IV shows the breakdown of diagnoses in each age group. The pattern does not vary much in percentage terms except at the top and, to a lesser extent, at the bottom of the age range.

The incidence of gonorrhoea declines from about 25 per cent. of total diagnoses among teenagers and men in their twenties, to just under 10 per cent. among men aged 50 and over. In comparison, NGU occurs less frequently among teenagers, and reaches its highest incidence—nearly 28 per cent. of diagnoses—among patients in their forties.

The high proportion of 'nil' diagnoses among the upper age groups reflects an attitude of caution among older patients, many of whom had previously received treatment at the clinic.

MARITAL STATUS AND DIAGNOSIS

Table V shows patterns of diagnosis in relation to marital status. The highest proportion of gonorrhoea and the lowest proportion of 'nil' diagnoses occur in the separated/divorced category. Approximately

16 per cent. of all the male cases of gonorrhoea were diagnosed among separated or divorced patients. In contrast, the highest proportion of 'nil' diagnoses and the lowest proportion of gonorrhoea occur among the 'marrieds'.

MEDICAL HISTORY AND DIAGNOSIS

Patients with a previous history of venereal infection or of attendance at a clinic for the treatment of sexually transmitted diseases were classified as 'Repeaters'. All other patients were classified 'New patients'. The latter category probably includes a number of cases in which previous clinic attendance was not disclosed. Table VI shows the patterns of diagnosis in these categories. The incidence of NGU was significantly higher among 'repeaters' than among new patients, and so was the incidence of syphilis, although the incidence of syphilis was low in both categories.

SOCIAL CLASS AND DIAGNOSIS

Social class variations in the pattern of diagnosis among clinic patients have been noted elsewhere;

TABLE IV *Age and diagnosis*

		Diagnosis					
Age (yrs)		Syphilis	Gonorrhoea	NGU	Other condition(s)	Nil	All diagnoses
<20	No.	3	126	90	104	195	518
	Per cent.	0.6	24.3	17.4	20.1	37.6	100
20-24	No.	10	269	275	183	407	1,144
	Per cent.	0.9	23.5	24.0	16.0	35.6	100
25-29	No.	10	151	149	86	188	584
	Per cent.	1.7	25.9	25.5	14.7	32.2	100
30-39	No.	6	116	141	83	215	561
	Per cent.	1.1	20.7	25.1	14.8	38.3	100
40-49	No.	4	28	59	20	101	212
	Per cent.	1.9	13.2	27.8	9.4	47.6	100
50+	No.	7	12	21	12	71	123
	Per cent.	5.7	9.8	17.1	9.8	57.7	100
Total	No.	40	702	735	488	1,177	3,142
	Per cent.	1.3	22.3	23.4	15.5	37.5	100

TABLE V *Marital status and diagnosis*

		Diagnosis					
Marital status		Syphilis	Gonorrhoea	NGU	Other condition(s)	Nil	All diagnoses
Single	No.	21	426	451	322	671	1,891
	Per cent.	1.1	22.5	23.8	17.0	35.5	100
Married	No.	14	161	222	113	429	939
	Per cent.	1.5	17.1	23.6	12.0	45.7	100
Separated or divorced	No.	5	111	58	47	68	289
	Per cent.	1.7	38.4	20.1	16.3	23.5	100
Widowed	No.	0	4	4	6	9	23
	Per cent.	0.0	17.4	17.4	26.1	39.1	100
Total	No.	40	702	735	488	1,177	3,142

TABLE VI *Previous history and diagnosis*

Previous history		Diagnosis					
		Syphilis	Gonorrhoea	NGU	Other condition(s)	Nil	All diagnoses
New patients	No. Per cent.	15 0.8	418 23.0	372 20.5	301 16.6	711 39.1	1,817 100
'Repeaters'	No. Per cent.	25 1.9	284 21.4	363 27.4	187 14.1	466 35.2	1,325 100
Total	No.	40	702	735	488	1,177	3,142

in particular, the incidence of gonorrhoea has been found to be lower, and the incidence of NGU higher, among men in the professional classes, than among men in Social Classes III, IV, and V (Pemberton, McCann, Mahoney, Mackenzie, Dougan and Hay, 1972).

Social Class III in the Registrar General's classification covers a wide range of skilled occupations and includes altogether something like 50 per cent. of the employed population (Central Statistical Office, 1973). In the analysis of the Hull data, the non-manual (N) and manual (M) sub-divisions of Social Class III were considered separately, giving a six-class distribution of diagnoses (Table VII).

A feature of this analysis is the contrast it reveals in patterns of diagnosis between (a) professional and other white-collar workers and (b) manual workers. In general, the differences between manual and non-manual subdivisions of Social Class III are more substantial than the differences between adjacent social classes elsewhere in the Table.

From Table VII it can be calculated that cases of gonorrhoea amounted to 28.1 per cent. of diagnoses among manual workers, and 13.6 per cent. of diagnoses among non-manual workers. Corres-

pondingly, the incidence of NGU amounted to 19.5 per cent. of diagnoses (manual) and 29.3 per cent. (non-manual).

One occupational group, namely Merchant Navy officers and cadets, contributed nearly one half of the total number of registrations in Social Class II. The pattern of diagnosis within this occupational group did not differ substantially, however, from the general Class II pattern.

STUDENTS

Teenagers and men in their early twenties are scarcely represented in the professional categories in Table VII, since many of those destined for professional employment, but have not yet acquired a professional qualification, are excluded from the Registrar General's classification. Analysis of student registrations (Table VIII) indicates a distribution of diagnoses much closer to the 'non-manual' pattern than to the general pattern of diagnosis in the corresponding age groups.

HOMOSEXUALS

39 diagnoses (1.2 per cent. of the survey total) relate to patients believed to have been at risk of infection

TABLE VII *Social class and diagnosis*

Social class		Diagnosis					
		Syphilis	Gonorrhoea	NGU	Other condition(s)	Nil	All diagnoses
I Higher professional	No. Per cent.	0 0.0	7 14.6	11 22.9	7 14.6	23 47.9	48 100
II Lower professional	No. Per cent.	9 1.8	74 14.4	145 28.2	78 15.2	208 40.5	514 100
III (N) Skilled non-manual	No. Per cent.	1 0.4	27 11.6	77 33.0	36 15.4	92 39.5	233 100
III (M) Skilled manual	No. Per cent.	8 0.8	245 25.4	226 23.4	143 14.8	342 35.5	964 100
IV Semi-skilled	No. Per cent.	17 2.8	176 28.7	97 15.8	106 17.3	218 35.5	614 100
V Unskilled	No. Per cent.	3 0.7	144 33.2	70 16.1	71 16.4	146 33.6	434 100
Unclassified diagnoses (students, schoolboys, H.M. Forces, and inadequately described or deviant occupations)							2,807 335
							3,142

TABLE VIII *Student diagnoses*

Students	Diagnosis					All diagnoses
	Syphilis	Gonorrhoea	NGU	Other condition(s)	Nil	
No.	2	16	62	25	96	201
Per cent.	1.0	8.0	30.8	12.4	47.8	100

TABLE IX *Homosexuals: distribution of diagnoses between new patients and 'repeaters'*

Patient's record	Diagnosis					All diagnoses
	Syphilis	Gonorrhoea	NGU	Other condition(s)	Nil	
New patients	0	7	0	0	11	18
'Repeaters'	2	8	4	1	6	21
Total	2	15	4	1	17	39

from a homosexual source. The distribution of these registrations and associated diagnoses between new patients and 'repeaters' is shown in Table IX.

Summary and conclusions

The usual reservations concerning the reliability of information received from clinic patients must be made, although we have no evidence of systematic distortion in the data provided, apart from the understatement of previous clinic attendances.

Analysis of the 3,045 male registrations included in the survey revealed that:

- (1) More than half were of patients under 25 years of age. This age group included almost one-third of the cases of syphilis, 56.3 per cent. of the cases of gonorrhoea, and 49.7 per cent. diagnoses of NGU.
- (2) Some 30 per cent. of registrations were of married men living with their wives. The proportion of registrations in this category increased substantially through the upper age groups.
- (3) The incidence of gonorrhoea and of syphilis was higher among the separated or divorced than among single, married, or widowed men.
- (4) The incidence of gonorrhoea was higher among patients in their teens and twenties than in succeeding age groups; NGU was diagnosed most frequently among patients in their forties.
- (5) The incidence of NGU varied inversely to that of gonorrhoea in relation to social class. Gonorrhoea was diagnosed more frequently among manual than among non-manual workers, while the incidence of NGU was higher among white-collar workers

(including students). The highest incidence of gonorrhoea was recorded among registrations in the semi- and unskilled categories where the incidence of NGU was lowest, while the lowest and highest frequencies of gonorrhoea and NGU respectively were recorded among registrations in Social Class III (N)—comprising mainly clerical and sales workers.

Some of the above findings may be of mainly local significance, and much additional evidence is required before the influence of such factors as marital status and social class can be adequately interpreted.

With respect to findings (4) and (5) above: variations in the incidence of gonorrhoea in relation to age and social class are probably explicable in terms of differences in degree of promiscuity and in use of the sheath. Variations in the incidence of NGU are more problematic. It is suggested that sensitivity to, or response to, relatively minor symptoms may vary on an age and class basis, and that such variations may contribute to the observed differences in the incidence of this diagnosis.

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