

Middle Articles

HOSPITAL TOPICS

Distribution and Origins of Manpower and Work-load in the Psychiatric Services

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British Medical Journal, 1969, 3, 774-776

"Drink deep, or taste not the Pierian spring:
There shallow draughts intoxicate the brain."—POPE.

This paper shows the developments in medical manpower in the hospital services for adult psychiatry in one metropolitan hospital region with a population of just under 3½ million (7.7% of the population of England and Wales). The region includes two medical schools, with just over 7% of the medical student intake for England and Wales, and five large psychiatric hospitals and a number of psychiatric units in general hospitals with a total of 6.25% of the admissions and 7.39% of the outpatient attendances for England and Wales (Department of Health and Social Security, 1968, 1969; Royal Commission on Medical Education, 1968). The paper also examines the relative rates of development of manpower and work-load in the psychiatric and general medical services nationally and considers some relevant evidence from general practice studies.

Regional Psychiatric Manpower

Method.—A census was undertaken of the medical staff of the regional and teaching hospitals and the academic departments engaged in adult psychiatry on 31 December of the years 1948, 1958, and 1968. The medical school of undergraduate training and the higher qualifications of these doctors was recorded from the relevant medical directories. In the general tabulation regional hospital facilities which were attached to or incorporated into the teaching hospitals in the later years of the study have been shown within the teaching hospitals throughout. Where relevant a correction has been made for the increase in population in the region by 7% during the period 1948-58 and 20% during 1948-68. Admissions and outpatient figures used relate to the years 1949, 1958, and 1967, but are shown against the years of the census above.

Results. (1) Manpower and its Uses

A progressive increase in psychiatrists occurs during the period of study, even after correction for the increase in the

TABLE I.—Psychiatrists (in Approximate Full-time Equivalents) in Regional (R.H.) and Teaching (T.H.) Hospitals 1948, 1958, and 1968 With Period Since Medical Qualification

Years Qualified	1948			1958			1968		
	R.H.	T.H.	All	R.H.	T.H.	All	R.H.	T.H.	All
0-5	8	1	9	18	5	23	27	10	37
6-10	3	3	6	16	1	17	20	9	29
11-15	12	2	14	11	0	11	14	12	26
16-20	6	0	6	9	2	11	13	4	17
21-30	7	2	9	13	2	15	17	2	19
31-	4	0	4	3	2	5	8	2	10
Not known	1	3	4	1	4	5	1	2	3
Total	41	11	52	71	16	87	100	41	141
Total corrected for increased population since 1948			52			81.3			117.5

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population of the region (Table I). This increase is most noticeable in doctors qualified less than 10 years in the regional hospitals, but occurs in almost all periods since qualification in the teaching hospitals. In the period 1958-68 the rate of increase in manpower in the teaching hospitals exceeds that in the regional hospitals, and when manpower is considered in relation to work-load there is a sharp difference in the pattern of development between the regional and teaching hospitals (Table II).

TABLE II.—Average Annual Admissions and Outpatient Attendances per Psychiatrist in Regional and Teaching Hospitals 1948, 1958, and 1968

	Regional Hospitals			Teaching Hospitals		
	1948	1958	1968	1948	1958	1968
Average annual admissions per psychiatrist	55.7	62.3	86.5	93.9	50.8	35.0
Average annual outpatient attendances per psychiatrist	662.6	568.1	697.6	1,337.5	891.7	664.9

A progressive rise in the average number of admissions per doctor is seen throughout the period of the study in the regional hospitals, with the reverse pattern in the teaching hospitals. In 1968 the average number of outpatient attendances per regional doctor was also higher than that for teaching hospital psychiatrists, who, unlike the regional hospital psychiatrists, had, over the period studied, progressively reduced their average annual outpatient load.

(2) Qualifications

The number of Diplomates in Psychological Medicine (D.P.M.s) increased over the period of the study, but again the pattern differs in regional and teaching hospitals (Table III). In the period 1958-68 there was a fall in the number of D.P.M.s held for under 10 years in the regional hospitals with a sharp rise in the teaching hospitals. During this time the average annual number of admissions per D.P.M. holder had risen in the regional hospitals and fallen in the teaching hospitals, so that in 1968 the average annual number of admissions for a regional D.P.M. was three times that for a teaching hospital D.P.M. The average number of outpatient attendances was a third as high again for a regional D.P.M. in 1968 when compared with a teaching hospital D.P.M. holder. The picture for the degree of Doctor of Medicine and for the Memberships of the Royal Colleges is similar, and in 1968 the average annual admissions for each regional psychiatrist with either qualification was roughly four times that of each teaching hospital psychiatrist.

(3) Teaching Commitment

In a climate in which the regional hospital psychiatrist has increased his average annual admission load one-and-a-half times in 20 years it is unlikely that the teaching hospital psychiatrist has simply reduced his work by nearly two-thirds.

It may be that progressively more complex patients are being referred to teaching hospitals over the years and that they require more investigation; alternatively, progressively more time may be spent on each but comparable patient in the course of more thorough treatment. In practice, however, it appears more likely that the increase in available manpower, and thus man-hours, in the teaching hospitals is being directed to undergraduate teaching, and if in clinical activity both regional and teaching hospital psychiatrists are assumed to work with equal efficiency some estimate of the teaching commitment can be made. The 1968 outpatient load of the teaching hospitals, for example, would be managed by 39.1 regional doctors and the inpatient commitment by 16.6. If it is also assumed that the regional doctor averages two sessions per week in outpatient clinics, then the total teaching hospital clinical commitment would have been undertaken by 20.7 doctors. (If only one session were worked in outpatient clinics 27.8 doctors would be required.) Thus 20.3 doctor-equivalents (or 13.2 in the second case) may be devoted to full-time teaching. This figure represents 50% of the teaching hospital manpower or 14.4% of the

total psychiatric manpower in the region (9.4% in the second case).

It should be stressed that the element of teaching which differentiates regional and teaching hospitals is undergraduate teaching, and it is therefore reasonable to examine the undergraduate origin of psychiatrists to determine any effect from this effort.

(4) Undergraduate Origins of Psychiatrists

Once again there is a sharp difference in the pattern of regional and teaching hospitals. In the former, the period 1948-58 saw a noticeable increase in home graduates, which has now passed its peak (Table IV). The further expansion of 1958-68 is based on recruits from overseas who finally constitute 38% of available manpower. In the teaching hospitals major expansion occurred only between 1958 and 1968, and is almost entirely based on home graduates. The increase in teaching hospital manpower virtually matches the number estimated to

TABLE III.—Holders of D.P.M. in Regional (R.H.) and Teaching (T.H.) Hospitals 1948, 1958, and 1968 with Period Held and Annual Average Admissions and Outpatient Attendances

Years Held D.P.M.	1948			1958			1968		
	R.H.	T.H.	All	R.H.	T.H.	All	R.H.	T.H.	All
0-5	6	2	8	20	3	23	17	15	32
6-10	5	1	6	12	1	13	9	7	16
11-15	2	0	2	2	0	2	11	1	12
16-20	2	1	3	3	2	5	8	1	9
21-30	7	0	7	6	2	8	4	3	7
31-	0	0	0	2	0	2	3	0	3
Not known ..	1	2	3	1	3	4	1	0	1
Total	23	6	29	46	11	57	53	27	80
Total corrected for increased population from 1948			29			53.3			66.7
Average annual admissions per D.P.M. ..	99.3	172.1	114.4	96.2	73.8	91.8	163.2	53.1	126.0
Average annual outpatient attendances per D.P.M. ..			1,377.7			957.9	1,316.2	1,009.7	1,212.7

TABLE IV.—Country of Undergraduate Training of Regional (R.H.) and Teaching Hospital (T.H.) Psychiatrists with Period Since Qualification

Years Qualified	British Isles									Overseas								
	1948			1958			1968			1948			1958			1968		
	R.H.	T.H.	All	R.H.	T.H.	All	R.H.	T.H.	All	R.H.	T.H.	All	R.H.	T.H.	All	R.H.	T.H.	All
0-5	7	1	8	16	3	19	9	7	16	1	0	1	2	2	4	18	3	21
6-10	1	3	4	13	1	14	11	8	19	2	0	2	3	0	3	9	1	10
11-15	10	2	12	11	0	11	12	12	24	2	0	2	0	0	0	2	0	2
16-20	5	0	5	8	2	10	11	4	15	1	0	1	1	0	1	2	0	2
21-30	6	2	8	13	1	14	10	2	12	1	0	1	0	1	1	7	0	7
31-	3	0	3	3	2	5	8	1	9	1	0	1	0	0	0	0	1	1
Not known ..	1	3	4	1	4	5	1	1	2	0	0	0	0	0	0	0	1	1
Total	33	11	44	65	13	78	62	35	97	8	0	8	6	3	9	38	6	44
Total corrected for population increase since 1948	33	11	44	60.8	12.1	72.9	51.7	27.5	80.8									

TABLE V.—Percentage Increase in Population, General Practitioners, Hospital Staff, Hospital Inpatients and Outpatients, Prescriptions, and Sickness for England and Wales 1949, 1958, and 1967 with Appropriate Baseline Year (1949 or 1958) as 100 (Derived from Annual Reports of Ministry of Health and Social Security)

	Population	Principals in Unrestricted Practice	Total Hospital Staff, Whole-time Equivalents	Consultants, Whole-time Equivalents	Hospital Discharges and Deaths			Hospital New Outpatients			Hospital Total Outpatients			Prescriptions	Average Monthly Number Incapacitated	Working Days Lost		
					Mental Illness	General Medicine	All Departments	Mental Illness	General Medicine	All Departments	Mental Illness	General Medicine	All Departments			Males, Mental Illness	Males, All Causes	Males and Females, All Causes
1949	100	100	100	100	100	100	100	100	100	100	100	100	100*					
1958	103 (100)	111 (100)	136 (100)	134 (100)	147 (100)	129 (100)	132 (100)	145 (100)	99 (100)	197 (100)	204 (100)	126 (100)	153 (100)	101 (100)	(100)†	(100)†	(100)†	
1967	111 (108)	112 (101)	174 (128)	157 (117)	232 (158)	162 (118)	171 (130)	203 (140)	96 (97)	247 (125)	349 (171)	154 (122)	177 (116)	134 (103)	(117)‡	(131)‡	(119)‡	

* 1950; † 1956; ‡ 1966.

be concerned in undergraduate teaching, but is unlikely to depend on it in a simple relationship for at least three reasons. Firstly, the most noticeable increase in home-qualified psychiatrists had taken place by 1958 before the development of teaching hospital resources; secondly, in all censuses the median period from qualification is 11–15 years, which again ensures that the undergraduate training of psychiatrists antedated this development; and thirdly, and even more paradoxically, there were in fact fewer psychiatrists qualified at home under five years in 1968 than 1958, when the teaching development was under way. There is a definite increase in overseas graduates, in most cases from medical schools without adequate academic departments of psychiatry, during the same period.

Psychiatry and Other Branches of Medicine

So far no comment has been offered on the overall increase in work in hospital psychiatry in the region examined. A similar increase is seen in the hospital statistics for England and Wales, and comparison with other departments shows the increase in psychiatric work to be of an order which differentiates it and which consequently requires explanation (Table V).

For psychiatry the rate of increase for discharges and deaths from hospitals in England and Wales was twice as great as for general medicine and all departments. Total outpatient attendances increased three to five times more rapidly in psychiatry than in general medicine and all departments. The rate of increase in new outpatients in psychiatry did not quite match that of all departments, but once again outstripped general medicine during the whole period. During the second decade psychiatric referrals increased more rapidly than those of all departments.

Further explanation is necessitated by the apparent lack of relationship between these hospital trends and community morbidity. While national statistics of work-load in general practice covering the period reviewed in this study and in comparable terms to hospital statistics are not available, indirect measures such as the number of prescriptions annually, the number of days of work lost through sickness, and the number of sickness claimants (Ministry of Social Security, 1967) must bear some relation to community morbidity (and obviously to prescribing habits and the expansion of the insured population). These measures show in general a lower rate of increase than those of hospital attenders (Table V). Finally, the available community figures—working days lost by males—show a lower trend of increase for psychiatric reasons than for all causes, the reverse pattern of that seen in the hospitals.

Discussion

Methods of treatment, public attitudes, and changes in the quality of disease contribute to the altered patterns emerging in the medical services. Day-to-day administration and particularly the direction of patients is, however, primarily in the hands of doctors, who, for example, essentially control referral to hospital.

This study shows that in one region the teaching apparatus has absorbed any extra manpower that could have resulted from the expansion of teaching in the past 20 years. To date the effect of this expansion on the main centres of service (in this region the regional hospitals dealt with 85.8% of admissions and 71.9% of outpatients in 1967—personal communication) has in fact been some depletion in home-trained doctors. Manpower needs in regional hospitals have been met by the recruitment of overseas graduates, relatively few of whom are found in the teaching centres, though it might naturally be assumed that they required more intensive training because of the need to master social and cultural structures already familiar to home-trained graduates. Finally, there is a slight fall in recently qualified home graduates turning to psychiatry.

While these manpower developments were in train in the hospitals there has been concurrently a particular increase in

psychiatric referrals to the hospital services in a period when psychiatric morbidity in the community was probably not rising as rapidly as general morbidity.

The increase in all departments in outpatient attendances and admissions (Table V) is not likely to have resulted from an epidemic escalating over 20 years and involving almost all aspects of ill-health—and indeed the measures of ill-health in the community already referred to are against such a hypothesis. It appears more likely to reflect a change in hospital referral criteria—in which psychiatry is affected, as are most other departments. What is noteworthy in the case of psychiatry (Table VI) is the degree to which the change has taken place

TABLE VI.—Proportion of New Outpatients to Reattenders in Mental Illness, General Medicine and All Departments for England and Wales in 1949, 1958, and 1967 (Annual Reports of Ministry of Health)

	Mental Illness		General Medicine		All Departments	
	New O.P.	Re-attenders	New O.P.	Re-attenders	New O.P.	Re-attenders
1949	100	355	100	244	100	323
1958	100	556	100	337	100	229
1967	100	745	100	439	100	201

and the progressive rise in the proportion of reattendance to first attendance (more than doubling in 20 years) in contrast to the pattern of all departments, where reattendance fell from an average of roughly three to two for each new attender.

In general medicine the special facilities centred in hospitals may create consumer demand for more investigations. It is difficult to see that this applies to psychiatry, for while there is no doubt about the psychiatrist practising his branch of medicine where facilities for investigation exist and where certain physical treatments can be undertaken it is clear that his level of investigation is low in relation to other departments, that his main tool is still a fountain-pen, and that the majority of investigations are either incidental to the reason for referral or directed to the ultimate proper placement of patients with other specialists. It appears more likely in psychiatry that reattendance is for the purpose of treatment and represents the transfer of work-load from general practice to the hospital services.

If the expansion of teaching to date has any bearing on these phenomena, then, in the absence of increased psychiatric morbidity or an increased interest in practising psychiatry, what may be taught is the identification of psychiatric patients for hospital referral. The Royal Commission on Medical Education (1968) drew attention to the need to impart practical skills to the student of clinical psychiatry and suggested a role as participant/observer. The evidence to the Commission of the Royal College of General Practitioners recognizes the importance of psychiatry in training for general practice. This paper shows a need for the continuing review of the content of psychiatric education—undergraduate and vocational—together with a revised appreciation of the schismatic developments which are emerging in the hospital service.

I wish to thank Dr. Russell Barton, Dr. P. Brook, Dr. R. Crocket, Dr. J. E. Glancy, Dr. J. Gould, Dr. A. G. Mezey, Dr. J. Pippard, Professor D. Pond, Dr. T. A. Ramsay, Dr. J. T. Silverstone, and Dr. G. D. Fraser Steele for the information which they supplied for the census, and Mr. B. B. Bonner and Mrs. L. D. Orr for certain statistical data.

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