the major types of tumour become available, CEA and other tumour markers will be more useful in the management of cancer.

Additional needs

The panel has identified several areas for future study which should improve the clinical usefulness of the CEA assay: the improvement of assay methods; the evaluation of monoclonal antibodies to CEA for improving assay specificity; the establishment of a laboratory quality control system using a CEA standard preparation; the clinical study of CEA in combination with other markers; the diagnostic role of CEA in biological fluids other than plasma; the individual and collective comparison of CEA with other specific diagnostic methods; the estimation of tumour CEA content in relation to plasma CEA values; and the study of the pathophysiology and metabolism of CEA.

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For Debate . . .

Changing patterns of psychiatric care

P WILLIAMS, A CLARE

By the end of the 1960s it had become clear that the general-practitioner services in Britain were coping with the overwhelming proportion of the total amount of psychiatric morbidity within the community, leaving only a small and atypical proportion to the specialised psychiatric services.[1 2] Shepherd and his colleagues championed the strengthening of the "therapeutic role" of the general practitioner to enable him to meet this challenge, a strategy since endorsed by the World Health Organisation.[3] Other voices, however, particularly transatlantic ones, were raised, both at the time and since, in favour of improving accessibility to psychiatrists and of a corresponding increase in the number of specialist psychiatrists.[4-6] Developments in general practice in Britain over the past ten years[7] reflect the extent to which the role and the scope of general-practice management of psychiatric ill health has developed. There has been surprisingly little comment, however, concerning the impact of changes within specialised psychiatry on patterns of referral and management within the specialised and primary care services.

The years 1970-5 witnessed a dramatic increase in psychiatric manpower—the number of consultant psychiatrists rising by 28%, non-consultant psychiatric staff by 35%, clinical psychologists by 64%, and psychiatrically trained nurses by 31%. This expansion affords a useful opportunity to examine the assumption, made at the end of the 1960s, that expanding the specialised services would result in a shift of some of the burden of psychiatric management from the primary care to the specialised services. The expansion occurred at a time when the total number of psychiatric beds was contracting, and psychiatrists were becoming more aware of the social and community aspects of their work.[8] The scene was set, therefore, for a shift from general practitioner to psychiatrist. Has it happened?

There are three possible answers to this question: (1) Nothing has happened and the situation remains unaltered. The same amount of work is being done by the same practitioners with the same amount of patients (the "unchanged" hypothesis). (2) There has been no appreciable change in the number of patients being managed by psychiatrists but more treatment (in the nature of support, time, and techniques) is being provided for each one (the "intensive" hypothesis). (3) Psychiatrists are actually seeing more patients and hence are managing a greater proportion of the morbidity than before the expansion of psychiatric manpower (the "extensive" hypothesis).

To test these hypotheses we investigated the changing pattern of psychiatric care during 1970-5.

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Method

Relevant data for England and Wales for the years 1970-5 were extracted from the following sources: *Facilities and Services of Mental Illness and Mental Handicap Hospitals in England, Inpatient Statistics from the Mental Health Enquiry for England*, and *Health and Personal Social Services Statistics for England*. The data presented here relate only to mental illness hospitals and units and not to mental handicap facilities, but include units in general and teaching hospitals.

Results

Table I shows all outpatient and all day-patient attendances at, and all admissions to, mental illness hospitals and units in England for the relevant years. The relevant findings are as follows:

(1) The total number of outpatient attendances (NB not patients) increased by 11-12%: the average number per consultant psychiatrist decreased by 20%.

(2) The total number of day-patient attendances (NB not patients) increased by 55%; the average number per consultant psychiatrist peaked in 1973 (+14%) but fell back to +11% by 1975.

(3) The total number of inpatient admissions did not change appreciably, so that the average number per consultant psychiatrist decreased by 27%.

Table II shows new referrals to outpatient facilities and day hospitals, and first admissions to mental hospitals and units. The relevant findings are as follows:

(1) The number of new referrals to outpatient clinics remained more or less unchanged from 1970 to 1974, but the rate per consultant psychiatrist decreased by 21%. Fewer new patients were referred in 1975 than in any of the previous five years.

(2) New referrals to day hospitals increased by just under 50%. The rate per consultant psychiatrist peaked in 1973 (+20%) and then fell to +5% in 1975. At the same time, the number of patients discharged from hospital to attend as day patients increased by 43%.

(3) The number of first admissions decreased by 10%, so that the rate of first admissions per consultant psychiatrist decreased by 35%.

Table III shows that the total number of new patients (outpatients, day patients, and inpatients) per 100 000 population is subject to no consistent trend over the six years. In fact the variation around the mean (635/100 000) is slight—the coefficient of variation is only 1·99%, while the difference between the highest and the lowest figure (651 and 616 respectively) represents about one patient per general practitioner. In contrast the total number of new patients per consultant psychiatrist has consistently fallen.

Table III also shows the ratio of all attendances to new referrals for outpatients and day patients, and the ratio of readmissions to first admissions for inpatients. The ratio attendances:new outpatients increased consistently over the years in question. The equivalent ratio for day patients fluctuated, but the overall effect was still that of a rise. The ratio readmissions:first admissions also increased steadily.

Discussion

The use of routinely collected mental health statistics for research poses certain problems.[9 10] The data are retrospective and are not collected for the primary purpose of research. No account is taken of the many administrative and social factors that affect them. There is a further problem with regard to using rates for new attendances and admissions—namely, that the denominators are subject to error. The denominator used routinely, and that used here, is the size of the home population. This results, however, in an overestimation of rates for referral and new admissions, as the true population at risk is in fact the home population minus those who have previously been referred or admitted. These limitations must be borne in mind when evaluating the data under discussion.

The results show that during the years in question the total number of patient contacts (not, it should be noted, the number of patients contacting) with the specialist services increased. Only in the case of day-patient attendances was this increase commensurate with the expansion in psychiatric manpower. Thus the average number of outpatient attendances and admissions to hospital dealt with by each consultant team decreased during this period. But, can the absolute increase in patient contacts be explained on the basis of an increasing intensity or an increasing extent of care?

New referrals to outpatient clinics did not increase while first admissions to hospital actually decreased. There was, however, a pronounced increase in the number of patients attending day-hospital facilities for the first time. It seems unlikely, however, that this trend represents an increase in the number of patients who have never before contacted the psychiatric services, since the total number of new patients coming into the specialised psychiatric services remained relatively constant over the years studied. It can be better accounted for in two ways. Firstly, the decrease in first admissions together with the rise in referrals to

TABLE I—*Outpatient and day-patient attendances and inpatient admissions, England 1970-5. (Numbers in parentheses are an index of change, being the percentage of the 1970 figure)*

Year	Population (000s)	No of consultant psychiatrists	All outpatient attendances: No*	Per 100 000 population*	Per consultant psychiatrist*	All day-patient attendances: No*	Per 100 000 population*	Per consultant psychiatrist*	All admissions: No*	Per 100 000 population*	Per consultant psychiatrist*
1970	46 253·8	717 (100)	1 422 767 (100)	3076 (100)	1984 (100)	1 751 169 (100)	3786 (100)	2442 (100)	172 931 (100)	374 (100)	241 (100)
1971	46 130·8	756 (105)	1 474 802 (104)	3197 (104)	1951 (98)	1 946 720 (111)	4220 (111)	2575 (105)	173 230 (100)	376 (101)	229 (95)
1972	46 303·6	806 (112)	1 541 447 (108)	3329 (108)	1912 (96)	2 244 799 (128)	4848 (128)	2785 (114)	175 152 (101)	378 (101)	217 (90)
1973	46 425·3	868 (121)	1 545 498 (109)	3329 (108)	1781 (90)	2 361 191 (135)	5086 (134)	2720 (111)	174 171 (101)	375 (100)	201 (83)
1974	46 435·5	929 (130)	1 594 131 (112)	3433 (112)	1716 (86)	2 470 833 (141)	5321 (141)	2660 (109)	170 827 (99)	368 (98)	184 (76)
1975	46 453·7	999 (139)	1 585 000 (111)	3412 (111)	1587 (80)	2 718 471 (155)	5852 (155)	2721 (111)	175 111 (101)	377 (100)	175 (73)

* Rounded to nearest integer.

TABLE II—*New referrals to outpatients and day hospitals and first admissions, England 1970-5. (Numbers in parentheses are an index of change, being the percentage of the 1970 figure)*

Year	New referrals to outpatients: No	Per 100 000 population	Per consultant psychiatrist	New referrals to day hospitals: No	Per 100 000 population	Per consultant psychiatrist	First admissions: No	Per 100 000 population	Per consultant psychiatrist*	Discharges to day hospitals
1970	203 979 (100)	441 (100)	284 (100)	24 515 (100)	53 (100)	34 (100)	63 480 (100)	137 (100)	89 (100)	11 018 (100)
1971	201 130 (99)	436 (99)	266 (94)	26 756 (109)	58 (109)	35 (104)	61 904 (98)	134 (98)	82 (92)	12 198 (111)
1972	206 051 (101)	445 (101)	256 (90)	29 634 (121)	64 (121)	37 (108)	60 118 (95)	130 (95)	75 (84)	14 018 (127)
1973	207 985 (102)	448 (102)	240 (85)	35 747 (146)	77 (145)	41 (120)	58 450 (92)	126 (92)	67 (76)	14 338 (131)
1974	207 102 (102)	446 (101)	223 (79)	36 220 (148)	78 (147)	39 (114)	56 140 (88)	121 (88)	60 (68)	14 984 (136)
1975	192 783 (95)	415 (94)	193 (68)	35 769 (146)	77 (145)	36 (105)	57 376 (90)	124 (91)	57 (65)	15 725 (143)

TABLE III—*New referrals and attendances, England, 1970-5*

Year	All new patients: Per 100 000 population	Per consultant psychiatrist	Outpatient attendances: new OPs	Day-patient attendances: new DPs	Readmissions: new admissions
1970	631	407	6·98	71·43	1·72
1971	628	383	7·33	72·76	1·80
1972	639	368	7·48	75·75	1·91
1973	651	348	7·43	66·05	1·98
1974	645	322	7·70	68·22	2·04
1975	616	286	8·22	76·00	2·05

day hospitals suggest that patients who previously would have been admitted to hospital were latterly being treated as day patients. Secondly, the number of patients resident in hospital decreased (from 107 977 in 1970 to 87 321 in 1975) and while death may have caused part of this decrease, some of it is clearly due to discharge into day-hospital facilities; the number of patients discharged from hospital to day-hospital care increased by 43% during this period. Such patients, if they had not previously been registered as day patients, would appear in the statistics as new day patients (even if they had been using day-patient facilities while resident in hospital).

Such evidence argues in favour of the "intensive" rather than the "extensive" hypothesis. This is further illustrated by the changes in the ratios of attendances:new referrals for outpatients and day patients and the ratio of readmissions:new admissions. All these ratios increased over the years, clearly showing that on average each patient within the specialised psychiatric treatment sector received more care. It should, however, be remembered that these data take no account of patients seen elsewhere, such as domiciliary visits or psychiatric consultations in general-practice settings. Nevertheless, it does seem reasonable to suppose that similar trends would apply in such settings.

What can we deduce from these trends which could help us to assess their impact on general-practitioner services? The evidence strongly supports the view that general practitioners are continuing to deal with the same amount—that is, the bulk—of the new morbidity. It is not clear whether the size of the total pool of psychiatric morbidity in the community is increasing, decreasing, or static. It appears unlikely that it is decreasing in view of the alleged trend towards the increasing "medicalisation" and "psychiatrisation" of life.[11 12] It also seems unlikely that general practitioners are detecting less psychiatric morbidity, given the increasing attention paid to psychiatric aspects of primary care in recent years.

Whereas psychiatrists are apparently devoting an increasing proportion of their energies to patients already known to them and already within the specialised psychiatric ambit, it cannot be said with any certainty whether this is in addition to or in place of care provided for such patients by general practitioners. Either way it is unlikely to affect the psychiatric demand placed on general practitioners to any appreciable extent, particularly as the number of general practitioners is increasing and list sizes are correspondingly falling, since there is evidence that smaller patient lists result in higher general-practice consultation rates.[13]

The data have important implications for assessing present and future patterns of psychiatric care. There is currently much discussion of a possible "new relationship" between general practitioners and psychiatrists, in which the psychiatrist instead of remaining in hospital attaches himself and his team to the primary care setting and develops a closer relationship with the various professional personnel working therein. Several such schemes have been reported on, in the main favourably, but there is an obvious lack of proper evaluation.[14] The evidence presented here suggests caution in using changes in psychiatric referral practice as a measure of the impact of new ways of organising and deploying primary and specialist resources. For example, the use of new patient-referral rates would appear to be a somewhat limited measure in this circumstance. The number of new outpatient referrals per unrestricted principal in general practice is 10 or less a year. If we take into account the number of restricted principals, assistants, and trainees who are also able to refer, together with the fact that outpatient referrals do come from sources other than general practice, then the number of new outpatient referrals per general practitioner must be even smaller. Indeed, Morrell[15] reported that only 1·1% of general-practice consultations for psychiatric disorder led to referral to the specialist services.

Given that the numbers of new referrals are so small, it would clearly be virtually impossible to show an appreciable reduction as a consequence of attaching psychiatrists, social workers, marriage guidance counsellors, or other personnel to primary care facilities or as a consequence of other organisational, administrative, or therapeutic alterations. Similar arguments apply to using admission rates as a measure of change.

Hence evaluation of changes of psychiatric practice within the specialised and primary care sectors must rest on two alternative strategies, those of (*a*) evaluating the quality and nature of the care that the general practitioner and his primary care colleagues provide and (*b*) evaluating the quality and nature of the care provided for patients already known to the psychiatric services.

The decreasing number of patient contacts per psychiatrist does not mean that psychiatrists are less busy. Psychiatrists have many demanding calls on their skill and time other than the types of patient contacts included in the statistics reviewed above. As Russell[16] pointed out, in arguing for the psychiatric expansion occurring in the 1970s, the provision by psychiatrists of the most minimal standards of patient care left "virtually no time for essential activities such as teaching, research, or committee work." More recently, it has been shown[17] that on average, short-stay psychiatric patients spend a total of less than two hours individually with doctors, while on average long-stay patients see their doctors less than one hour each year. Hence probably the specialised psychiatric services are as pressed for time as the primary care services and that it is somewhat unrealistic, whether or not desirable, to expect any appreciable shift in psychiatric care towards the specialist services as a consequence of such expansions of staffing that occur there.

Throughout this discussion attention has been drawn to limitation in interpreting the data. The gross trends are the end result of many processes and factors about which little is known and, given the present level of available information, little can be known. Unless more is known about influences on current patterns and trends of care, however, it is difficult to see how rational planning of future services is possible. The availability of more detailed statistical information is a basic requirement.

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