General practitioner referral rates to district psychiatry and psychology services

FRANCIS CREED
JAYA GOWRISUNKUR
EVE RUSSELL
JOHN KINCEY

SUMMARY. The number of referrals made to a district psychiatry service by each of the local general practitioners over a five year period was counted and a large variation in general practitioner referral rate was found. Ten referral letters from each of the general practitioners were independently assessed for the amount of detail included and a mean score for each general practitioner obtained. A significant negative correlation was found between referral rate and amount of detail in referral letters, that is low referrers wrote very detailed letters. The procedure was repeated over an 18 month period including referrals to the district psychology service. Referral rate to the psychologists was positively correlated with detailed referral letters, that is those who referred many patients to the psychologists wrote detailed letters.

This study has indicated a wide variation in the use of the psychiatry and psychology services by general practitioners which cannot be explained solely on the basis of a general referral tendency. It is likely that constructive liaison between psychiatrists and general practitioners, especially those who refer a large number of patients, could enhance the care of patients with psychiatric disorder in general practice.

Introduction

It is well recognized that there is a wide variation in the referral rates of general practitioners to hospital clinics and this is an important issue in studies of the interface between primary and secondary care. General practitioners are said to have a unique referral threshold, because referral rate is not related to general practitioner characteristics, such as sex, years since qualification, higher qualifications, size of practice, nor to characteristics of patients such as age, sex and social class. The high or low referral rate is maintained for each general practitioner across diagnostic categories. It has been suggested that attention should be paid to a reduction in 'unnecessary' referrals because of the need to reduce cost. However, little is known about the 'optimal' referral rate — some authors have drawn attention to the need to increase a low referral rate rather than reduce a high one.

There are many factors which might influence general practitioner referral rate to a psychiatric outpatient department, including the sociodemographic characteristics of the area which influence the prevalence of psychiatric disorder, the nature and waiting list of the local psychiatric department and the general practitioner's own interest in psychiatry. A high interest in psychiatry could lead to a high detection rate of psychiatric disorders but a low tendency to treat these patients within the practice. Low interest in psychiatry might lead to a low detection rate and/or the wish to 'refer on' many patients with psychiatric disorder. The situation is further complicated by the availability of a direct referral service to clinical psychologists, some of whom work in health centres. A general tendency to be a high referrer would predict high referral rates to both psychiatrists and psychologists. The other hand, a general practitioner interested in psychiatry might be discerning and use each service appropriately, according to clinical need.

In the present study it has been possible to control some of these variables by using a geographically limited inner city area with a reasonably homogenous population and by confining the study to practices within two miles of the psychiatric department, thus ensuring that an identical psychiatric and psychological service was available to all general practitioners. Thus, the principal determinant of the referral rate should be the general practitioner's tendency to refer patients to specialist services.

The study started as an audit of a new district psychiatric service. Since the service started in 1982 there has been an increasing number of referrals to the outpatient department and we were interested to see whether all general practitioners were making equal use of the service. Referral rates from the general practitioners within the health district to the department were measured over a five year period. In order to complement these data concerning referrals to the psychiatry department, the number of referrals to both the psychiatry and psychology departments were counted for a further 18 month period.

As a crude measure of each general practitioner's interest in, or attitude towards psychiatry the quality of referral letters from each general practitioner was assessed. It is known that there is considerable variation in the amount of information obtained in general practitioner letters to a psychiatrist and there is some comparative data between countries indicating that high quality referral letters are associated with a low referral rate.

The aims of the present study were to test the hypotheses that referral rates from general practitioners to psychiatrists are related to (1) the quality of referral letter and (2) to number of referrals to the psychology service.

Method

Number of referrals

During the first five years. The number of patients under the age of 65 years referred by each general practitioner to the new psychiatry department at the Manchester Royal Infirmary were initially calculated for the five years 1982–86. These figures were derived from the post book in which each new referral letter is recorded. Thus the number of referrals was counted, not the number of patients who attended for their appointments. Referrals for patients to be seen in health centres as well as in the department were included. However, requests for a domiciliary visit were excluded because in this district they are infrequent and usually for patients with severe disorders requiring urgent hospital admission. The study focussed on referrals of patients who are commonly seen as new outpatients, who form the bulk of the work of the psychiatry and psychology departments, and
for whom variation between general practitioner referral rates might be greatest.

Those general practitioners whose surgery was outside, or near to the boundary of the central Manchester health district were excluded from the study since they might refer patients to neighbouring district services. The small number of referrals by trainees were attributed to their trainers since this study covered a five year period and most trainees were only in practice for one year. The general practitioners were divided into three equal sized groups — high, medium and low referrers — according to the total number of referrals made over the five year period.

During a recent 18 month period. The number of referrals to the psychology department were not readily available so the direct referrals to the psychology service over an 18 month period (January 1987 to June 1988) were counted in a similar way. The referrals to the psychiatry service during the same time were also counted. For both services referrals for patients to be seen in health centres as well as those seen in the main departments were counted. This part of the study included trainees as independent doctors provided the trainee was in post for a complete 12 month period.

Quality of referral letter

The amount of information included in referral letters was rated for each of the general practitioners included in the study. This rating was made by two of the authors (JG and ER) who were blind to the number of referrals made by each general practitioner. A sample of 10 referral letters from each general practitioner were rated according to a modified scale derived from that of Pullen and Yellowlees.7 Ten letters were assessed in case the amount of information included in a referral letter varied according to the clinical problem. For the majority of general practitioners five referral letters were assessed by JG and five by ER.

The system of Pullen and Yellowlees included five headings; these were increased to 10 headings in order to provide a more detailed assessment of each referral letter, and to do justice to the excellent referral letters sent by some general practitioners. The detailed scoring system was derived after several sets of general practitioner letters were scored blindly by the two raters and discrepancies between scorers had been discussed. The amount of information included under each heading was rated on a two or three point scale (Appendix 1). There was a maximum score of 24 for a referral letter which included complete information under each heading.

Results

Number of referrals to psychiatry department over first five years

There was a steady increase in the number of referrals to the psychiatry department over the first two years, after which the rate remained relatively stable (Figure 1). Forty general practitioners referred patients throughout this time and they were grouped as follows: high referrers, 40–110 referrals over five years (n = 13 general practitioners); medium referrers, 20–39 referrals (n = 14); and low referrers, 11–19 referrals (n = 13). For each of these three groups there was an upward trend in the number of patients referred during the first two years. During the last year, there was a slight fall in the number of referrals from the low referral group of general practitioners. During this year high referrers were responsible for two-thirds of all patients referred.

The consistency of referral rate during this five year period was assessed by comparing the number of referrals made by each general practitioner during the first two and a half years with those made during the second half of the period. There was a high correlation (Spearman's r = 0.77, P<0.001), indicating that the general practitioners tended to be consistent in their rates of referral over time.

Comparison of referral rate and quality of referral letters

With the detailed scoring system for the referral letters there was good agreement between the two raters. There was good consistency in the total score for the 10 referral letters from each general practitioner, suggesting that reliable results could have been obtained with fewer than 10 letters. For each general practitioner a mean score for the 10 referral letters was calculated. The range of these mean scores was between six and 18 out of a total of 24.

The total number of referrals made by each of the 40 general

Figure 1. Number of referrals to psychiatrists made by three groups of general practitioners for each six month period (1982–86).
practitioners over the five year period was correlated with their 'quality of referral letter' score and there was a statistically significant negative correlation (Spearman's $r = -0.34, P<0.05$), indicating that those general practitioners who wrote extremely detailed referral letters referred fewer patients (Figure 2).

**Number of referrals to psychiatry and psychology departments over 18 months**

Data were available for referral rates to the psychiatry and psychology departments for the 18 month period (January 1987 to June 1988) on 45 general practitioners. The number of patients referred to each department during this time was not significantly correlated (Spearman's $r = 0.015$).

The negative correlation previously observed between the number of referrals to the psychiatrist and the rating of the referral letter was again significant for this 18 month period (Spearman's $r = -0.44, P<0.002$). However, the number of referrals to the psychology service was positively correlated with the rating of the quality of referral letter to the psychiatrists (Spearman's $r = 0.39, P<0.005$). These data are demonstrated in Figure 3; high referrers to the psychology department wrote detailed letters to the psychiatrists.

**Sub-division of general practitioners by referral letter score**

The 45 general practitioners who had been included in the second part of the study (18 months) were divided at the median score (11.0) for quantity of information included in their referral letters to psychiatrists. Figure 4 indicates that the 22 doctors who sent a detailed referral letter referred similar numbers of patients to a psychiatrist and a psychologist. The 23 general practitioners who wrote less detailed referral letters (scored under 11.0) made many referrals to the psychiatrists and few to the psychologists. The total number of patients referred (to the two services combined) was significantly greater for the latter group of general practitioners (Mann Whitney U test $Z = -2.25$, $P<0.05$).

Sixteen of the 45 general practitioners work in health centres where a psychologist held a regular clinic. Of the total 356 referrals from these general practitioners 122 (34%) were to a psychologist and 234 (66%) to a psychiatrist. This proportion was similar to that from the remaining 29 general practitioners where 32% (343/1079) of the total referrals were to a psychologist.

**Discussion**

There are many problems in collecting information on general practitioner referral rates. Ideally data should be collected according to list size and workload, that is, by number of consultations, and account should be taken of self-referrals to the
accident and emergency service. Such data were not available to us and the crude number of referrals by each general practitioner was used. However, the patients routinely referred to the new outpatient clinic were unlikely to present in large numbers to an accident and emergency department and the department of psychiatry did not have a self-referral system. All the general practitioner surgeries included in the study were within two miles of the hospital departments.

We were able to collect data over a substantial period of time and the consistency of referral rate over time was similar to that observed using national morbidity data. The amount of information recorded in each general practitioner's referral letters was also consistent. We were careful to exclude general practitioners who might be referring many of their patients outside of the district but cannot be sure that we have not missed referrals to other psychiatric or psychology departments. But the growth of referrals to the new department over the last five years is clear and there is no reason to suspect that some general practitioners are referring many patients outside of the district. We found, like others, that each general practitioner has a unique referral threshold with wide variation even between different general practitioners in the same health centre.

In view of all these variables it is even more striking that statistically significant results have been obtained. It is interesting that the referral rates to psychologists and psychiatrists are not related. The fact that referrals to the two services are each significantly related with quality of referral letter — but in different directions — is of great interest. It appears that the general practitioners who write detailed letters are those who use the psychology service most and the psychiatry service least. This appears to be appropriate from what is known of psychiatric disorders in primary care.

We only measured the amount of detail included in a referral letter. Whether this measure really reflects a general practitioner's interest in and aptitude for psychiatry is an open question at present. The detail included in the best letters suggested that this might be so; such letters indicated that the general practitioner had elicited all the relevant clinical information, attempted a sophisticated treatment plan but was requesting additional help from the psychiatrist because the patient remained ill. We would also have liked to measure 'appropriateness' of referrals but this is a subjective criterion and general practitioners and specialists differ in their opinions about the appropriateness of referrals.

Since the referral rate of general practitioners seems to be constant across diagnostic categories it is possible that the low referral rate of the general practitioners who wrote detailed letters reflects a general tendency to refer less, rather than a specific interest in psychiatry. This seems unlikely; Robertson found that those general practitioners who referred fewest patients to a psychiatric service were those who had most interest in psychotherapy.

The general practitioners who wrote brief referral letters merit special attention. Some refer a large number of patients to the department of psychiatry and few patients to the psychology department. Although these general practitioners may not be aware of the indications for direct referral to the psychology service, the very high overall referral rate suggests that they might benefit from further training and guidance with management of psychiatric problems within general practice. Other general practitioners writing brief referral letters are referring few patients and it would be interesting to discover whether they are simply not detecting psychiatric disorders in their patients or whether they regard specialist referral as unnecessary or unhelpful. Further research is necessary to understand whether brief referral letters indicate lack of knowledge about the patient or the feeling that detailed referral letters are unnecessary for specialists who will themselves take a detailed personal history.

The starting point of this study was an audit of the psychiatric service. It is clear that the total number of referrals is steady but the proportion referred by high referrers continues to increase slightly over time. The reduction in referrals over the five year period by the low referrers may reflect the close liaison that has developed between psychiatrists and some general practitioners in this district. If such a liaison model could be extended, this might help those general practitioners with low confidence in their knowledge of psychiatry and low confidence in their ability to manage psychiatric disorder in general practice. Such a liaison model, where the psychiatrist spends time in the health centre discussing cases with the general practitioners, could only be extended if general practitioners were willing and psychiatrists could alter their practice to make time for such discussions. The advantage of such an approach is that an enhanced ability of the general practitioner to manage psychiatric problems would lead to better care for the many patients with psychiatric disorders, who are not referred to a psychiatrist. However, the use of specialist time in educating general practitioners reduces the time the psychiatrist has available to see patients and this has implications for the measurement of performance of psychiatrists. Similarly, the implications of these findings for current models of clinical psychological services in primary care will also need careful consideration and are discussed elsewhere.

Appendix 1. Schedule for assessment of general practitioner letters.

Scores for each aspect:
1. Legibility 0-2
2. Reason for referral 0-3
3. Main symptoms or problems 0-3
4. Treatment so far 0-3
5. Past psychiatric history 0-2
6. Family history 0-2
7. Relevant past medical history 0-1
8. Relevant social history 0-3
9. Relevant investigations 0-2
10. Diagnosis 0-3

(maximum) 24

Examples of scoring:
2. Reason for referral
0 = unclear: 'Please see this patient who has recently registered with me'
1 = stated: 'Please see and advise about future management'
2 = clear: 'For relocation treatment', or 'Patient asked to be referred because of phobias'
3 = explicit: 'Weaning this lady off her drugs and preventing a return of her depression'
8. Relevant social history
0 = not mentioned
1 = very limited: single item mentioned, for example 'Unemployed'
2 = adequate basic demographic data and current situation, for example 'Lives alone, hoping to start work'
3 = very good: basic demographic details provided together with relevant items linked to the development and course of the psychiatric illness, for example 'She now has a common-law husband and they seem to be happy together. She has five children from her two marriages. The eldest son used to beat up Mrs D and eventually was taken into care. One son was involved in a road traffic accident and was unconscious for quite some time. She has not had sexual intercourse for the past six months, but this is not troubling either her or her husband. At present she is a housewife but she used to work in an accountant's office, when this finished she made dofts and cushions for her mother. She was particularly fond of her grandmother who died three years ago'.

References


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Address for correspondence
Dr F Creed, University Department of Psychiatry, Rawnsley Building, Manchester Royal Infirmary, Oxford Road, Manchester M13 9WL.

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