

The local problem in general-practice research

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IN January 1968, the Chief Medical Officer of the Scottish Home and Health Department, Dr J. H. F. Brotherston, introduced a new format for the *Health Bulletin*, the journal of the department. In this he noted a lack of factual knowledge of medical work wherever one turned in the study of health service matters. Initially, this seemed astonishing to a general practitioner who finds increasing difficulty in keeping abreast of the welter of medical reporting in the growing number of general or specialized journals.

It is true, however, that, in an effort to find a productive pattern of research within the confines of National Health Service administration, research in general practice within the College has shown varied forms and it is disappointing that a consistently rewarding pattern of research has yet to be established.

At present, the results of individual research appear in the *College Journal* less frequently, while the difficulties in sustaining collective work to a reliable conclusion are becoming apparent. Some important points have been established, however, although many frustrating realities have been thrown up along the way.

Some results of research

Although so much had been hoped for in the beginning when it was thought that each practice would have its own circumscribed 'population at risk', there appears to be no way around the problem of definition of this. Lees and Cooper (1963) point out that it has been variously estimated and is an unreliable factor, the degree of unreliability having to be established by individual practice. Similar difficulty exists in the definition of a consultation, and Payne (1966) subsequently showed that the interpretation of an 'item of service' rate is changed significantly if this is corrected by calculating the 'at risk' period in months instead of averaging over the year, as is usual. Definitions of age groupings, night calls and disease classifications have all presented their problems and the situation has changed little from 1963 when Lees and Cooper wrote, "Due mainly to the use of dissimilar definitions and classification, no reliable conclusions can be drawn from the whole body of material surveyed on disease and the individual general practice."

Leaving definitions and considering practice populations, the conventional workload rate is an unsatisfactory figure for use in the study of genesis of medical demand (Jacob 1963). Lees and Cooper note that "Variations in the absolute levels of age and sex patterns between practices are too large to permit useful generalizations" and Hardman perhaps makes the same point in indicating such variation in morbidity between practices that statistical validity is not possible unless the samples compared are large.

Further discouragement seems to come from Simpson who points out that close observation of a population over one year is not a sufficient time for gauging accurately disease and conditions which develop slowly and occur at a relatively low rate.

One or two positive contributions have been made, however, in unravelling the complex relationship between doctors and patients. If a choice of doctor is available, patients show age and sex pattern differences in the doctor they attend (Hopkins 1967). Population differences, however, are more important than doctor differences in the

production of different work-load patterns (Jacob), and personal characteristics, as well as diseases, determine the medical needs of population groups (Jacob).

Jacob contributes further considerable work using the statistical possibilities of an 'artificial practice'. From his studies it seems likely that a population can be broadly divided into two groups—a larger 'resistance to' or 'avoidance of' illness group and a smaller 'vulnerable' group. A study of the supramean multiple group (the 'high users' of his Demand Forming Population in both items of service and episodes of illness) supports the hypothesis that these patients have special system susceptibility to illness. Again, although gravity of illness could be assessed quantitatively in a fashion to be statistically useful, a random population of 25,000 would be required to develop the hypothesis associated. Of the work of a practice, about 20 per cent is 'not symptom indicated.'

The foregoing work represents a fraction of the weight of effort and publication which has gone into research in general practice since the College was founded. It demonstrates, however, the difficulties of research in this field and the limits of the findings which have been made which have general applicability.

The question arises, then, whether general applicability is an essential of useful research.

The local problem

Much of the material published in the College *Journal* since its inception refers to medical matters which have had local application only—where no repetition of the pattern elsewhere has been observed and recorded to allow the comparisons from which research would be advanced. These local variables complicate further the constantly changing environment in which general practice research is undertaken and which has been noted as a difficulty by the Research Committee of the Council of the College. It should perhaps be stressed, therefore, that it is in small-scale observations among these local variables, and in adapting to them, that the general practitioner has his greatest opportunity.

The reduced flow of descriptive research may result from discouragement among contributors at the failure to reach the next stage, that of comparison. Only when these small-scale descriptive studies from general practice are adequately supported will the main potential of general-practice research be developed.

Three small studies will help to illustrate the point:

1. A practice of 2,500 patients in the centre of Edinburgh has a disproportionately large immigrant Pakistani community. The problem was to ascertain the state of immunization of the babies of this group, which was thought to be inferior to that of the native-born Scots children in the same area.

A search of the literature by the college librarian revealed no published work on this subject, and a small study was arranged. Nineteen Pakistani children under the age of five years were registered in the practice and these were matched for age and sex with 19 native-born children. The selection of the controls was made by choosing the Scots child of the same sex whose birthday corresponded most closely with that of the Pakistani infant, and it was found almost always to be possible to match within the same month. The two groups matched very closely when considered for place of birth, birth rank, occupation of the father as a basis for social classification, and distance of the home from the nearest clinic or the general practitioner's surgery. The immunization state was obtained by extraction from practice records and by having the district health visitors search the local authority records. The health visitors also visited the Pakistani homes to establish the level of the mothers' command of English, which was found usually to be extremely poor. This last step was carried through in anticipation of differences in

immunization state being found. In the event, the differences were inconsiderable and certainly not significant.

The study was easily carried through to a conclusion and the negative result was thought to be as important in its way as a positive one would have been.

2. In common with other large cities, Edinburgh has a population separable from the rest of the community by virtue of the fact that the people composing it live in lodging-houses to obtain shelter and accommodation with maximum privacy and minimum outlay. A problem arose in trying to provide general-practitioner care for persons who came from lodging-house addresses to a practice centred in the middle of the lodging-house area, and a retrospective review of work carried out in these patients suggested that the nature of the care which they required was different from that required by ordinary general practice populations. (A description of the first work carried out in this connection has been published—Scott *et al.* 1966, Morrell 1967). At the end of the study it was possible to demonstrate that more than half the patients presenting from lodging-house addresses suffered from some permanent medical handicap. The pattern of surgery consultation was very different from the findings of Logan's large-scale study; the pattern of hospital referrals was very different from the findings of Scott and Gilmore who sampled the general population in the same area; and the pattern of domiciliary consultation was very different from that of controls from the general practice which operated from the same surgery premises.

Limited conclusions were drawn by comparing different facets of medical care with the same facets of care from studies differently designed. Studies of the same design in other lodging-house areas are now required to identify local differences of problems of illness in lodging-house inmates.

3. A home in Edinburgh, supported voluntarily, offers temporary accommodation for women and girls who are destitute and who can find no other shelter. Of almost 300 women accommodated in the course of a year, approximately one-quarter were seen for medical reasons, and a diagnosis of the reason for their admission was made on the basis of normal general-practice appraisal. Twenty were thought to have unstable personalities which made them either rootless in society or antisocial, 19 were pregnant with illegitimate offspring, 13 suffered from some form of mental illness, and ten were admitted because of social discord in their own family setting. These women obviously pose problems of general medical care although the nature of the problems is not clear at outset, and no conclusions can be reached.

From the standpoint of the practitioner, research in general practice should be aimed at resolution of the problems he has to handle. These are very frequently of local significance and may indeed not be reproduced at all in other areas. Valid research is possible, however, if the inexactness of the science he is practising is recognized and conclusions are only drawn consistent with the evidence of such comparisons as can be found.

The first of the illustrations allows matching of patient groups for the factors already known to be significant in immunization states so that the comparison is fair and it can be said that, in this part of Edinburgh, the immigrant Pakistani babies are immunized to the same level as the Scots.

In the second illustration, the population group being considered—patients presenting from lodging-houses—cannot be matched in their social characteristics. Nonetheless, by comparing different aspects of their medical care with other records of the same aspects for undifferentiated patients, limited conclusions can fairly be drawn. Thus, to take one aspect, in one year 450 patients from lodging-houses consulted 2,798 times and the pattern can be compared with 128,527 consultations in one year in the nine practices studied by Logan. The conclusions drawn then stand as a hypothesis which a comparable study

carried out elsewhere can confirm, refute or amend.

In the third illustration, the patients have in common only that they were temporarily without home or shelter and thereby reached a general practitioner. By any standards they constitute an unusual population group, but their numbers are insufficient to allow any research beyond the first step of good economic description.

In reverse order, these studies illustrate three stages of the normal method of research—1. description, 2. comparison of descriptions allowing formulation of a hypothesis, 3. confirmation, refutation or amendment of the hypothesis.

Now, patterns of morbidity in general practice are subject to much local variation. Intimate aspects of the service problems they raise, many of them medico-social and deriving from the local culture, are not revealed by the descriptions appropriate to large scale morbidity studies. If the foregoing sequence of research were to be encouraged and acted on locally some of the problems could be elucidated or dealt with locally. Under the present administrative structure of the Health Service, there is no such encouragement or action and present plans to revise the administration should take account of this deficiency. If general practice were afforded a flexible administration in which service and research functions were encouraged to develop locally in relation to each other, then patterns of care would emerge which would reflect the needs of the local communities. Descriptions of these exercises in clinical care revealing local variation both of morbidity and its management would provide a sensitive reflection of national domiciliary need—a wide angle cine-picture keyed to varying needs, rather than the incomplete high- and low-key snapshots available at present.

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Sick absence certification. Analysis of one group practice in 1967. STUART CARNE, M.B., M.R.C.G.P., D.C.H. *Brit. med. J.* 1969. 1, 147

In a London group practice, with 4,397 patients aged between 15 and 64, during one year the three principals issued certificates covering over 82 years (30,026 days). About half the episodes were for seven days or less. A striking disparity in the days on which a patient resumed work suggests self-selection by the patient of his period of absence rather than control by the doctor. 65.6 per cent of patients resumed work on a Monday as opposed to 1.8 per cent on a Saturday and 3.6 per cent on a Friday.

It is suggested that dispensing with the need for short term medical certificates would reduce the general practitioner's workload without detriment to public funds.