up.[9,10] Expanded consultations of a traditional type[11] are probably more effective, but without more consultation time, the expansion cannot occur. Priority is rightly given to demand, so that without enough time, identifying need is omitted.[12,13] Although there is evidence to support the general feeling that general practitioners already have too much to do[14-16] the new contract encourages not more time but more patients.

If we must have a 'stick and carrot' policy, it should relate to ends rather than means. Smoking habit, blood pressure, cholesterol level, body mass index, glycosylated haemoglobin level and other reversible risk indicators should be expressed first as proportions of relevant populations screened, then as differences before and after treatment. Those that run our administration claim that this would be too complicated and that we must start simply, with what we know. Exactly so. What we know is at least the beginnings of scientific medicine, not business. We are not donkeys, and neither sticks nor carrots are appropriate to our task; as Mike Pringle[17] predicted, the new contract is widening the gap which already existed between high and low investment practices, inversely reflecting the social and clinical burdens with which they contend.[17-19] In all senses and on both sides of the surgery desk, the rich get richer and the poor get poorer.

The widening social chasm was beyond the remit of the Coronary Prevention Group's report, but engulfs all its conclusions. All factors promoting premature coronary senescence, in childhood as well as adult life, are becoming more concentrated in those who have least of everything.[20] If personal salvage has any meaning in this context, it must be concentrated where it is most needed. What we actually want for better personal anticipatory care is help in identifying needs on a mass scale, and then providing lifetime support. This can be done, even under the most difficult conditions of inner city practice, provided the aims are clear and resources are made available.[21] The resources required are mostly more labour (more doctors, many more nurses, and very many more lay counsellors of various kinds) and in-service training for that labour.[9] We have the beginnings of this in the many prevention facilitators and health promotion officers who are serious about their work and aware of the limitations of the new contract, as well as that growing cohort of primary care teams who have for the past 10 years braved a rising tide. Their time will come.

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The consultation and health outcomes

DESPITE its acknowledged importance in British general practice and in medical education, the doctor–patient relationship is an area that has received less attention from general practice research than epidemiology (for example, morbidity classification and recording) and practice organization. Exceptions can, of course, be found, for example, the descriptive work of Balint[1] or Byrne and Long,[2] the analytical work of Pendleton,[3] the studies of Morrell[4,5] and, more recently, Howie,[6] concerning the length of consultations and Freeman's study[7] of continuity.

Paradoxically, a growing body of investigation into the effectiveness of doctor–patient communication is emerging in Canada and the United States of America, despite the latter's lack of support for generalist practice. These studies relate specific aspects of communication between doctor and patient to evidence about their effectiveness in improving outcomes. This area of study may deserve exploration in the United Kingdom because of the special strengths of general practice in this country. Such exploration could lead to improved teaching and better practice in all clinical fields.

Two examples relate particular aspects of communication to change in physiological measurements — a narrow focus, but one which offers a particularly clear illustration of the relation between process and outcome.

Inui and colleagues[8] achieved significant improvement in the control of raised blood pressure in an experimental group of patients whose physicians had had one two-hour tutorial to improve their effectiveness as managers and educators for this disorder. No improvement occurred in the control group of patients whose physicians had not had a tutorial. The tutorial concentrated on reasons for failure in controlling blood pressure, barriers to compliance and patients' needs for knowledge. The strategy for altering compliance was to stress the need to study the patient's own ideas about the disorder and its treatment. In

the event, studying beliefs and influencing them proved to be more important elements in the consultation than the review of symptoms or the physical examination. The physician had learned a different role, that of educator: re-allocation of time towards helping patients to learn and understand resulted in better control of blood pressure through better compliance.

Kaplan and colleagues[9] studied the following aspects of the consultation: the relative degree of control exerted by the patient rather than the doctor, the amount of emotion expressed by the doctor or patient and the quantity of information sought by the patient and gained from the doctor. In separate studies of patients with diabetes mellitus, hypertension and peptic ulcer, they made tape recordings of consultations and then coded and analysed the aspects listed above. The effects of variations in each study were demonstrated in randomized controlled trials. In the diabetic study, for example, diabetic patients in the study group attending a hospital outpatient department were involved in a 20 minute discussion before the consultation of how they were gong to deal with particular questions about their present condition and how they would talk with the doctor. Patients in a control group received instructions about diabetes but no discussion of their own case or their behaviour in the impending consultation. These two groups of patients were followed up for 18 months. Physiological changes were measured and recorded, but also changes in functional capacity, in the patients' own assessment of their progress and in their ratings of satisfaction with care received. For each of the three conditions studied there were significant differences on all four types of outcome measurement, almost all of which favoured the experimental group. For example, in the study of diabetics, there was a significant difference in the level of glycosylated haemoglobin between the two groups of diabetic patients after 18 months, and this was most strongly correlated with the degree of control exerted by the patient during the first consultation.

Overall this group of studies[9] suggests that there is a relationship between the way in which doctors and patients behave during a consultation and the patients' subsequent state of health. More precisely, more control by patients, more expression of emotion (positive or negative) by either patient or doctor and more information sought by patients and given by the doctor were associated with better health on follow up, especially as revealed in functional capacity and physiological measurements.

These are all experimental studies, involving interventions and including control groups. A recent review of the relevant literature confirms our impression that there may at present be no other studies that are closely comparable.[10] However, Inui and Carter describe 13 studies which distinguish specific aspects of communication and relate them to outcome, without introducing an experimental intervention or a control group.[10] Three of these studies[11-13] point to the importance of agreement between doctor and patient about the nature of the patient's problem in contributing to better outcomes. Bass and colleagues[13] found this agreement to be more relevant to the outcome after one month of the disorders studied than the adequacy of history taking, physical examination, use of other diagnostic tests or the prescription of drugs. The disorders studied were symptoms commonly presented to general practitioners, but not yet formulated into disease concepts, for example, back pain, chest pain, fatigue and rectal bleeding.

We have already referred to particular aspects of the consultation. One analysis of the relevant literature[14] identified 247 such variables, but these could be arranged in six mutually exclusive categories applicable either to the patient's or the doctor's contribution to the interchange — information giving, information seeking, social conversation, positive talk, negative talk and partnership building. The first two categories represent the technical tasks of a consultation, for example, history taking or therapeutic management; the other four the interpersonal or socioemotional aspects. The literature[14] contains sufficient evidence on the relationship between aspects of communication and the outcomes of patient satisfaction, recall and compliance for positive correlations to be made.

Clearly the consultation can be analysed using many different variables and examined from a number of different viewpoints. The variables can be correlated with a variety of patient outcomes. The North American studies should encourage investigators because they show that it is possible to identify and study discrete teachable parts of the consultation that have powerful effects on important behavioural and physiological outcomes. This is likely to be a highly rewarding, albeit very complex, area for study. Moreover, any analysis is likely to seem artificial and perhaps crude. Any significant findings in relation to outcome will still need to be viewed in the context of the relationship between a particular patient and a particular doctor, as for every new idea or procedure.

Continuing research in this area is justified by the fundamental role of the consultation in all clinical practice and the growing demand that worthwhile results should be convincingly demonstrated.

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